Scientific Programme

The annual meeting of
Welcome to ECR City 2020

1. Austria Center Vienna (ACV)
   - Main Congress Building
   - Registration
   - Educational & Scientific Sessions

2. M Building
   - International Village
     - (National Society Booths)
   - Educational & Scientific Sessions
   - Meeting Rooms

3. Expo
   - Technical Exhibition
   - AIX – Artificial Intelligence
   - Exhibition & Theatre

4. Tech Gate
   - Educational & Scientific Sessions
   - Rising Stars Lounge
   - Guerbet Patient Pathway
   - and Educational Programme

5. Hotel Meliá (DC Tower)
   - Interventional Radiology at Cube 3.0
   - Escape Rooms

6. Underground
   - Go green, use public transport!
Dobro nam došli na
Europski kongres radiologije 2020.!

Boris Brkljačić
32ND EUROPEAN CONGRESS OF RADIOLOGY

CONGRESS VENUE
Austria Center Vienna
Bruno Kreisky Platz 1
1220 Vienna, Austria

CONGRESS LANGUAGE
English

ONSITE OPENING HOURS

Registration
Tuesday, March 10 ..................... 14:00–17:00
Wednesday, March 11 .................. 07:00–18:00
Thursday, March 12 to
Saturday, March 14 ........................ 07:30–18:00
Sunday, March 15 ..................... 07:30–14:00

Science Lounge
(Presentation upload, moderator check-in and faculty support)
Tuesday, March 10 ..................... 14:00–17:00
Wednesday, March 11 .................. 07:00–18:00
Thursday, March 12 to
Saturday, March 14 ........................ 07:30–18:00
Sunday, March 15 ..................... 07:30–14:00

Workshop registration booth
Tuesday, March 10 ..................... 14:00–17:00
Wednesday, March 11 .................. 07:00–18:00
Thursday, March 12 to
Friday, March 13 .......................... 07:30–18:00
Saturday, March 14 ..................... 07:30–16:00

EPOS Lounge
EPOS™ – Scientific Exhibition
Wednesday, March 11 to
Saturday, March 14 ..................... 08:00–18:00
Sunday, March 15 ..................... 08:00–14:00

Technical Exhibition
EXPO Halls and EXPO Foyer D
Wednesday, March 11 to
Saturday, March 14 ..................... 10:00–17:00

Travel Service
Tuesday, March 10 ..................... 14:00–18:00
Wednesday, March 11 to
Saturday, March 14 ..................... 08:00–17:30
Sunday, March 15 ..................... 08:00–12:00

Press Office & Business Centre
Wednesday, March 11 to
Saturday, March 14 ..................... 08:00–18:00
Sunday, March 15 ..................... 08:00–14:00

The ESR thanks its member societies and partners for their contributions.
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Please note that sessions are marked with a logo to indicate their classification according to the European Training Curriculum.

- LEVEL I: First three years of training
- LEVEL II: Fourth and fifth years of training (general radiologist standard)
- LEVEL III: Subspecialty training standard

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www.myESR.org
FOREWORD BY THE ESR PRESIDENT

DEAR COLLEAGUES AND FRIENDS,

It is my great pleasure to welcome you to the European Congress of Radiology, ECR 2020: the 32nd annual meeting of the European Society of Radiology, and the 26th to take place in Vienna. As the ESR has grown into a global society, the European Congress of Radiology has also grown to become a global congress, with attendees from more than 130 countries. It has also relatively recently become the annual meeting of the European Federation of Radiographer Societies and the European Society for Hybrid, Molecular and Translational Imaging, making it Europe’s largest multi-professional radiological meeting. I am delighted that we are now able to attract such a diverse audience from all around the world, and that we are able to offer such a varied and comprehensive programme, not only for radiologists, but also for medical physicists and radiographers. Experts from all of these fields, not only from Europe, but from around the globe, will meet here this week and pass on their knowledge to radiology residents, young and older radiologists, physicists, radiographers and students. It is a benefit for all of us that the ECR has become the professional radiological meeting. I am delighted that we have now allocated 2,400m² of exhibition space, providing us with an excellent opportunity to learn about the latest trends and innovations, and of course exchange perspectives with our industry colleagues. This year, we have allocated 1,500m² of our exhibition space to innovators at the forefront of artificial intelligence, as well as our own AIX Theatre, which will host various industry pitches, keynotes and panel discussions in this fascinating field. I am looking forward to seeing how this expanding sector changes the face of the ECR’s exhibition, this year and at future congresses.

I would like to extend a special welcome to the thousands of industry representatives joining us at the ECR. Once again, more than 300 companies have joined us here in Vienna, setting out their stands across 26,000m² of exhibition space, providing us with an excellent opportunity to learn about the latest trends and innovations, and of course exchange perspectives with our industry colleagues. This year, we have allocated 1,500m² of our exhibition space to innovators at the forefront of artificial intelligence, as well as our own AIX Theatre, which will host various industry pitches, keynotes and panel discussions in this fascinating field. I am looking forward to seeing how this expanding sector changes the face of the ECR’s exhibition, this year and at future congresses.

The programme for this congress is the result of a great deal of hard work by the excellent group of experts who comprise my programme planning committee – to whom I am profoundly grateful – as well as the invaluable efforts of the ECR Scientific Programme Department. More than nine thousand abstracts were submitted for ECR 2020 (up 3.4% from ECR 2019, setting a new ECR record) and the very best have been selected for presentation in numerous ways, including My Thesis in 3 Minutes, Clinical Trials in Radiology and Voice of EPOS sessions, as well as many Research Presentation sessions (formerly known as Scientific Sessions). The programme also offers superb educational sessions in all fields of radiology, suitable for beginners and very advanced professionals, from sessions that will update and refresh your basic knowledge to the cutting-edge content of our New Horizons Sessions. This year, thanks to a reformed scheduling system, participants will be able to attend more educational sessions than at previous congresses, meaning attendees primarily interested in education will be able to benefit much more.

Let me summarise a few of the highlights that await you. The ECR 2020 Grand Opening, which takes place on Wednesday at 17:45 in the Forum (Room A), will this year bear the motto ‘Adagio’. This term, which refers to a slow tempo and graceful movements, is borrowed from the world of music, and it encapsulates our guiding philosophy for what will be a beautiful and memorable occasion. A dark-hued setting and a monochrome stage will provide a very special ambience, and we will draw the focus toward what lies at the heart of our annual meeting – the innovative, creative and inspirational people who make up the radiological community. ESR Honorary Membership and Gold Medals will be awarded, and, in good ECR tradition, music will play a major part, with a performance from popular Croatian pianist and singer-songwriter Lana Janjanin, who will be supported by a big band orchestra that is sure to brighten everybody’s mood with their rhythm and swing. ECR 2020’s second underlying motto, ‘Be a tree’, will also play a central role, with the Forum transforming into a virtual, futuristic fantasy landscape.

Following the success of ECR 2019’s ‘Women in Focus’ programme, we immediately decided ECR 2020 would have its own exclusive ‘in Focus’ feature. This year’s programme, titled ‘Children in Focus’, is dedicated to the late Helen Carty, ECR 2004 Congress President and a pioneer in paediatric imaging, and has been organised by Dr. Lil-Sofie Ording Müller from Oslo and Dr. Catherine Owens from London, supported by the European Society of Paediatric Radiology (ESPR). The programme will explore a range of healthcare and social issues affecting children and young people, with the aim of stimulating discussion on many aspects of childhood and medicine. I encourage you all to attend these lectures taking place on Thursday and Friday in Room O.

Taking the place of the former Honorary Lectures, ECR 2020 will feature three Plenary Lectures, in which esteemed speakers will present topics of relevance to the large audience in the Forum. All of these sessions have been specially scheduled to avoid overlap with any other congress activity, so I very much look forward to seeing many of you there for each of them. Ralph Weissleder, German-born professor at Harvard University and a famous researcher in molecular imaging, will give the first of these lectures, entitled ‘Imaging at a different scale: the wild lives
of our cells’ on Thursday at 10:30; Bernd Montag, CEO of Siemens Healthineers, will present his lecture, entitled ‘Digitalisation: the journey to a more human healthcare’ on Friday at 10:30; and on Saturday at 10:30, Nenad Sestan, executive director of the Yale Genome Editing Center at Yale University will deliver his lecture ‘Building the human brain: molecular logic of neural circuit formation’.

Several highly successful session formats have been introduced in recent years and these will of course be continued, such as ‘Coffee & Talk (open forum)’, a highly interactive session format with a lot of time for discussion in a relaxed atmosphere, and the ‘MyT3’ sessions, in which young colleagues present their theses in just three minutes! The Clinical Trials in Radiology (CTiR) sessions will see researchers presenting scientific evidence for imaging tests that are very likely to have an impact on clinical practice in the future. And the CUBE, our ‘theme park’ for interventional radiology, designed for residents and beginners, is back for a third time, even bigger than before.

Another welcome return will be the excellent workshops on MRI of the prostate, this year with even more slots due to popular demand. We have also introduced new ultrasound workshops combined with lectures, covering the most important areas of ultrasound use in radiology, as well as a brand-new workshop in MRI of the pelvic floor.

Of course, there will also be plenty of classic ECR sessions too. As every year, the ESR will ‘meet’ several countries at ECR 2020. We will have three ‘ESR meets’ sessions – ESR meets Canada, ESR meets Israel, and one combined ‘ESR meets’ session for Slovakia, Slovenia and Croatia, all with very attractive programmes. You can also look forward to the return of two of the most popular sessions of any ECR, the Image Interpretation Quiz and the Junior Interpretation Quiz. The IIQ’s theme is ‘Humans vs Machines’, whereas the juniors will compete in a challenge with the intriguing title ‘Heroes assemble: join our ranks’.

As noted earlier, ECR 2020 will also place a strong focus on artificial intelligence (AI) and machine learning: in addition to the strong presence in the exhibition, our scientific programme also aims to show all attendees a clear vision of AI in radiology. From informative courses under the heading of European Excellence in Education (E³), to the New Horizons, Coffee & Talk and AIX Theatre sessions, participants can expect a thorough exploration of the foundations of the field as well as fascinating insights into the latest AI discoveries in radiology.

Cooperation and partnership are as important to us as always, and so there will be many opportunities to engage with people not working directly in medical imaging professions. Several sessions will involve patient representatives as speakers and moderators, which is a result of the continuous good work of the ESR Patient Advisory Group (ESR-PAG). Furthermore, we are extremely pleased that some of our latest collaborations have led to some very interesting sessions being organised, such as with the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM), to foster the implementation of integrated diagnostics.

Finally, in addition to the Grand Opening on Wednesday afternoon, ECR 2020 will, for the first time, feature a Grand Finale on Sunday, March 15, 12:30–14:00 in the Forum. Based on the themes of the ‘Children in Focus’ programme, the Grand Finale will include three talks by extraordinary young speakers sharing their thought-provoking personal stories. Do not miss this wonderful conclusion to our congress!

The ESR is working hard on harmonising radiological teaching, practice and research in Europe, and the ECR is more than just a professional meeting. Modern technology can offer us opportunities for online teaching and training of a very high quality. But nothing can replace or surpass human interactions and encounters. The congress venue and the remarkable, beautiful city of Vienna offer our participants so many opportunities to meet, discuss and make friends from different countries. Some of these encounters will grow into real life-long friendships, as I know well from my personal experience. The best way to fight burn-out syndrome, which is so relevant and widespread in modern healthcare – including radiology – is to relax and enjoy yourself in addition to hard work. The ECR is the ideal opportunity for this. So welcome and enjoy!

Boris Brkljačić, ESR President
FOREWORD
BY THE EFRS PRESIDENT

WELCOMING ALL RADIOGRAPHERS TO ECR 2020

The European Congress of Radiology (ECR) is recognised as the official annual scientific meeting in medical imaging for radiographers by both the European Federation of Radiographer Societies (EFRS) and the European Society of Radiology (ESR). It is great to see the continued growth of the congress as a whole, but in particular to be able to share with radiographers around the world what is now the biggest and best, dedicated, educational and scientific programme.

A total of 2,254 radiographers and radiography students from 84 countries attended ECR 2019, with the top ten European countries, in terms of participants, being Austria, the Netherlands, Norway, Denmark, Italy, Finland, Portugal, the UK, Switzerland, and, my own country, Ireland. We are also very pleased to see growing participation from radiographers and student radiographers from outside Europe, where Japan, China, and Saudi Arabia had the highest participation numbers.

Making the ECR accessible and attractive to recently qualified radiographers, starting out on their professional careers, and student radiographers, is important to both the EFRS and the ESR and is reflected in the falling average age of ECR participants together with the participation of 487 student radiographers from 40 countries at ECR 2019. We look forward to welcoming even more to ECR 2020, which has now become one of the largest international gatherings of radiographers.

At ECR 2019, a total of 29 refresher courses, professional challenges sessions, special focus sessions, joint sessions, rising stars sessions, and scientific sessions made up the radiographers’ programme. The EFRS were also represented in the ‘Women in Focus’ programme by our vice-president, Charlotte Beardmore. For ECR 2020, we will also have seven radiographers’ Research Presentation sessions, one radiographers’ My Thesis in 3 Minutes session, and 24 radiographers’ Voice of EPOS sessions, including three in Italian, three in Japanese, and one each in French, Portuguese, and Spanish.

It is really encouraging to see the efforts of the EFRS to develop and promote radiographer research becoming evident as the number of abstracts submitted by radiographers is up 12% this year. A special word of thanks to Dr. Joana Santos from Coimbra Health School, Portugal, and Dr. Vibeke Logager from Hospital Herlev, University of Copenhagen, Denmark, who are the co-chairs of the 2020 Radiographers’ Scientific Subcommittee, and to their team for an excellent educational and scientific programme.

We also look forward to seeing radiographers interested in interventional radiology participating in the Cube 3.0, where once again several sessions will be supported by interventional radiographers, and we also hope to see many radiographers, who specialise in ultrasound, participating in the Ultrasound Hands-on Workshops (remember to book your place on these ultrasound workshops as places are limited).

At ECR 2020, the Radiographers’ Lounge will once again be located at Foyer C (outside Room C). In this area, you will also find 32 booths representing different national radiographers’ societies, along with some educational institutions who are members of the EFRS Educational Wing.

Following the successful pilot of the EFRS Research Hub concept at ECR 2019 (where radiographers from over 30 countries participated in providing more than 430 individual sets of data for the research studies taking place in the Hub), we are very excited to see the EFRS Research Hub returning for ECR 2020, where 15 research studies, seeking radiographers and radiologists to participate, will take place in rooms 2.96 and 2.97, near to the Radiographers’ Lounge. The Radiographers’ Lounge will thus be a great meeting place. The Radiographers’ Voice of EPOS stage has moved to the new EPOS World, on Level 1, and we once again look forward to seeing good attendances at these sessions.
FOREWORD BY THE EFRS PRESIDENT

Once again, the Annual Meeting of the EFRS Educational Wing, now consisting of 65 educational institutions, and our annual student meeting will take place during ECR 2020.

Following the launch, two years ago, of the ESR/EFRS Radiographer Awards and the Radiographers’ Evening, both initiatives will continue for ECR 2020. I look forward to jointly presenting, with the ESR President Professor Boris Brkljačić, the Best Radiographer Paper Abstract awards, the Magna Cum Laude Radiographer Poster awards, and the Best Radiography Student Abstract award on Thursday, March 12. I also urge you not to miss out on what promises to be another fantastic social event, and our biggest ever gathering of radiographers, on Thursday night, where Professor Brkljačić and I look forward to hosting more than 700 radiographers and radiography students following last year’s 530 capacity, sold-out event.

The EFRS represents more than 100,000 radiographers and over 8,000 radiography students across 35 countries, through 45 national societies, along with 65 universities within our Educational Wing. The EFRS is proud to collaborate with the ESR on what has become the biggest and best programme for medical imaging radiographers. We look forward to continuing our work with the ESR to grow the radiographers’ programme along with the participation of radiographers and radiography students from around the world.

On behalf of the EFRS and the ESR, we hope that you have a great congress and, together with the other members of the EFRS Executive Board, I look forward to meeting with you over the coming days and seeing you at the radiographers’ sessions.

Jonathan McNulty, EFRS President
ECR 2020
GRAND OPENING

Wednesday, March 11
17:45–19:45, Forum (Room A)

BORIS BRKLJAČIĆ
Zagreb/HR
ESR PRESIDENT

PRESENTATION
OF ESR HONORARY MEMBERSHIP
Dante R. Casale Menier;
Ciudad Juarez/MX
Yi-Hong Chou; Taipei City/TW
Valerie P. Jackson; Tucson, AZ/US

PRESENTATION
OF ESR GOLD MEDALS
Richard FitzGerald;
Wolverhampton/UK
Jim A. Reekers; Amsterdam/NL
Katrine Riklund; Umea/SE

Details to be found at myESR.org/GO

PLENARY LECTURES

Imaging at a different scale: the wild lives of our cells  [PL 1-1]
Thursday, March 12
10:30–11:00, Forum (Room A)

RALPH WEISSLEDER
Boston, MA/US

Digitalisation: the journey to a more human healthcare  [PL 1-2]
Friday, March 13
10:30–11:00, Forum (Room A)

BERND MONTAG
Erlangen/DE

Building the human brain: molecular logic of neural circuit formation  [PL 1-3]
Saturday, March 14
10:30–11:00, Forum (Room A)

NENAD ŠESTAN
New Haven, CT/US
**TRENDING TOPIC SESSION**

Novel coronavirus outbreak: experience and challenges in imaging and beyond

Thursday, March 12
17:45–18:45, Room C

Chairpersons:
**OTTO BURGHUBER**
Vienna/AT
**ANNA RITA LARICI**
Rome/IT

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**IMAGE INTERPRETATION QUIZ**

Humans vs Machines

Friday, March 13
14:00–15:30, Forum (Room A)

Moderator:
**PAUL M. PARIZEŁ**
Perth, WA/AU

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**JUNIOR IMAGE INTERPRETATION QUIZ**

Heroes assemble: join our ranks

Saturday, March 14
12:45–13:45, Forum (Room A)

Moderator:
**MAJA PIRNAT**
Maribor/SI

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**GRAND FINALE: CHILDREN IN FOCUS**

Sunday, March 15
12:30–14:00, Forum (Room A)

**CATHERINE OWENS**
Doha/QA
MODERATOR

**BORIS BRKLJAČIĆ**
Zagreb/HR
ESR PRESIDENT

Empowering young people to learn and lead

Memory Banda; Mzimba/MW

How I became an engineer at 14

Tanishq Abraham; Sacramento, CA/US

The power of stories

Arav Hak; Mumbai/IN
Grand Opening

Wednesday, March 11
17:45 - 19:15
FORUM (Room A)

Adagio
GENERAL INFORMATION
ARTIFICIAL INTELLIGENCE EXHIBITION (AIX) & THEATRE (AIXT)

After its hugely popular debut, the AIX is back and nearly doubled in size. Come and explore how machine learning, deep learning and big data are reshaping medical imaging to find out what the future of radiology holds. Meet the companies and innovators at the forefront of the field and take in keynote lectures, panel discussions and industry pitches in our transformed AIX Theatre. The AIX is located in the expo hall X1 and the AIXT’s sessions are for the first time CME accredited.

ARTS & CULTURE

Delegates are encouraged to visit the Arts & Culture Desk in the entrance hall for information on Vienna’s cultural events such as enchanting opera performances, delightful concerts, and the fascinating exhibitions at Vienna’s most important and remarkable museums. Check out the ‘Vienna’ section on the ECR App for a detailed cultural programme.

BADGES

For organisational and security reasons, badges must be worn at the congress venue. Access to the different areas will only be granted upon presentation of an appropriate badge.

Lost or Forgotten Badges

In the case of loss, a replacement badge will only be provided on full payment of the applicable onsite registration fee. Forgotten badges will be replaced against a deposit of the full onsite fee.

BOOK OF ABSTRACTS – PUBLICATION IN INSIGHTS INTO IMAGING

In keeping with the ESR’s commitment to environmental sustainability, the Book of Abstracts is only available online as supplement issue of the ESR journal Insights into imaging. All abstracts can be accessed at http://i3-journal.org/for-readers/. Abstracts of EPOS™ presentations are not published in the Book of Abstracts, full posters are published on epos.myESR.org and can be cited with their DOI.

CAFÉS & RESTAURANTS

If you are looking for an ideal meeting point, or if you just want to take a short break, try one of the various foyer cafés and restaurants. They are located throughout the congress venue, on all levels of the building, and offer a variety of tasty hot and cold snacks. Check out the most delicious dishes at our restaurants in Foyer A (2nd level) and Foyer F (entrance level) and at the ‘Café Grand Vienna’ (Foyer D). Please see the ‘coffee-cup’ and ‘knife and fork’ signs on the Floor Plans on pages 33–41 of this programme to locate the various foyer cafés.

CASE-BASED DIAGNOSIS TRAINING

Please refer to the E³ – Rising Stars Programme and see page 114.

CASES OF THE DAY

From Wednesday to Saturday, the Cases of the Day covering different sections of radiology are released in a dedicated quiz on Eurorad (www.eurorad.org). ESR members are invited to submit their diagnoses. The contributing authors and winners will be announced on the ESR website.

CHURCHES AND RELIGIOUS COMMUNITIES IN VIENNA

Vienna is a multi-denominational, multi-cultural city. There is a special website with information on local religious communities and places of worship; or you may want to ask our staff at the Travel Service Desk.

CLINICAL TRIALS IN RADIOLOGY (CTIR)

For the sixth time, at ECR 2020, Clinical Trials in Radiology (CTiR) sessions are taking place (on Wednesday, Thursday and Friday). The CTiR sessions are comprised of presentations on recent trials which are very likely to have an impact on clinical practice. Please refer to pages 197–199 for the programme of the sessions.

CME ACCREDITATION SYSTEM

The ESR will use a fully digital CME acquisition system for ECR 2020. In order to claim CME credits, it is mandatory to wear the ECR SmartTag when attending sessions and to evaluate the relevant sessions afterwards. Evaluation and CME acquisition will be possible via

- The evaluation platform at http://eval.myESR.org
- The official ECR App, ECR 2020, available via the App Store (iOS) and Google Play (Android)
- On 130 laptops in the EPOS Lounge, located on the 1st level
Please note that evaluation of the sessions is only possible from March 11 until March 16, 2020 (23:59 CET). CME credits will only be awarded if you have:

- Attended sessions **in full** wearing your ECR SmartTag
- Logged into [http://eval.myESR.org](http://eval.myESR.org) with your
  - Username and Password or
  - Last Name and Personal ID (printed on your badge)
- Completed the electronic questionnaire for each session you attended in full
- Completed the electronic ‘Overall Congress Evaluation’ questionnaire

See pages 28-29.

See ‘Participate from Home’ / ‘EPOS only’ for instructions for attendees with a ‘Participate from Home’ or ‘EPOS only’ ticket.

In case you have any questions, please visit the Helpdesk in the entrance hall of the ACV.

**CME CONFIRMATION**

After the congress, you can go online at any time to the MyUserArea and print out your CME Confirmation, which will be available from March 23, 2020. This document lists in detail all the sessions you visited and evaluated during the congress, as well as the number of hours credited. For more information see pages 28-29.

**COAT CHECK**

The coat check services are located on the lower level next to Rooms Darwin (Room D2), Descartes (Room D3), G and K. Please note that a small fee of € 2.50 will be charged. In addition, ESR is supplying coat check services in the Tech Gate and the Hotel Meliá (DC Tower).

**COFFEE & TALK SESSIONS**

Don’t miss this informal session format, featuring short lectures and discussions, taking place in various stylish lounges: **Room Coffee & Talk 1** (2nd level, Foyer B, within the ESOR Lounge), **Room Coffee & Talk 2** (1st level, Foyer N, next to the EuroSafe Imaging Lounge), and **Room Coffee & Talk 3** (entrance level, Foyer E). Stop by and contribute to the lively discussions while sipping your coffee or tea.

Topics vary from artificial intelligence and research to EuroSafe Imaging (radiation protection), ESR iGuide (referral guidelines and decision support) and publication and management tips. Please refer to 91-96 and 106-107 for the programme of the sessions.

**COMMUNICATION AREAS**

If you are looking for the perfect place to meet and talk with friends or just to relax, ECR 2020 offers areas perfectly equipped for communication and recreation; the ESR Meets Lounge right in the middle of the entrance hall, the Free Publications Area behind the café at the main entrance, the EuroSafe Imaging Lounge and the EPOS Lounge on the 1st level, the Radiographers’ Lounge on the 2nd level in Foyer C, the ESOR Lounge on the 2nd level in Foyer B, and the Rising Stars Lounge, which welcomes all students, residents and trainees, located on level 7 of the Tech Gate, providing a spectacular view of Vienna.

**CONFIRMATION OF PAYMENT AND ATTENDANCE**

Congress-related confirmation will be available during and after the congress from the ESR website ([www.myESR.org](http://www.myESR.org)) via the MyUserArea (login with your Username and Password).

**CONGRESS LANGUAGE**

English

**CONGRESS VENUE**

Austria Center Vienna (ACV)
Bruno Kreisky Platz 1
1220 Vienna, Austria
Phone: +43 1 533 40 64-0

To reach the ACV by public transport from the city centre (Stephansplatz), take the U1 underground line (red line, direction Leopoldau). Get off at Kaisermühlen-VIC (Vienna International Centre) and take the exit marked Donau-City-Straße. Travelling time: approximately eight minutes.

**CUBE 3.0**

The Cube is ECR’s educational space exclusively dedicated to **interventional radiology**. A four-day programme focusing on peripheral, central, oncological and neurological interventions awaits anyone interested in this dynamic subspecialty at the Hotel Meliá (DC Tower).

Participants can expect a huge array of simulators, devices, expert-led presentations, daily event sessions and more, making the **Cube 3.0** the best place to get an immersive, hands-on introduction to IR. The Cube’s sessions are for the first time CME-accredited.
Customise your congress experience

Download the ECR 2020 App

1. Scan the QR code to download the ‘ECR’ App. Alternatively search for ‘European Congress of Radiology’ in your mobile market place.

2. Launch the app and access the ‘ECR 2020’ event.
**ECR CITY**

The number of delegates and sessions at the ECR has increased markedly in recent years. That’s why we have decided to take advantage of surrounding locations to create our own very own ‘ECR City’.

In addition to the well-established **Austria Center Vienna** and the newly built **Expo X5** used for the technical exhibition, the ECR co-opts again the United Nations’ **M Building** for its entire duration. The **Hotel Meliá (DC Tower)** is again home to the **Cube 3.0** and the **Escape Rooms**, and the **Tech Gate** will host the **Guerbet Patient Pathway**, the **Rising Stars Lounge** as well as scientific sessions.

**ECR SMARTTAG**

The **ECR SmartTag** is a Bluetooth device that records the attendance of sessions as well as the movement of congress delegates using sensors distributed throughout the congress venue and the adjacent exhibition halls. In case you have received your SmartTag by postal mail prior to the congress, please make sure to **activate it before entering the congress centre by removing the plastic strip**. The SmartTag will not work without removing the SmartTag!

The ECR SmartTag allows you to automatically register and record the attendance of sessions, which is one of the prerequisites for receiving CME credits. **Wearing the ECR SmartTag is a mandatory prerequisite in order to obtain CME credits for the sessions you attend.**

**‘ECR LIVE’ ON ESR CONNECT**

After its success in previous years, the ESR is once again providing a **live streaming service** for ECR 2020, ECR Live, in an effort to bring the ECR to everyone. All ECR sessions are being **broadcast live via the ESR’s new platform ESR Connect (connect.myESR.org)**. With a valid ECR 2020 congress registration, live streaming and on-demand viewing is included in your registration and accessible until March 31, 2020. ECR Live is exclusively sponsored by Siemens Healthineers.

**ECR RADIO – GOOD MORNING, VIENNA!**

We are pleased to announce that at ECR 2020, for the first time, we will have our very own ECR Radio, which will be **broadcast live from the entrance hall Wednesday to Saturday**, every morning from 07:30 to 10:30. Listen to news from the congress, highlights of the day, captivating interviews and some beautiful, uplifting music!

Available via the **ECR 2020 App**.

**ECR TODAY**

For the first time at ECR 2020, **ECR Today**, the popular daily news of the congress, will be available as online medium via the **ECR App** and at ecrtoday.myESR.org. The print version of **ECR Today** is produced in greatly reduced circulation. It is published from Wednesday to Sunday and available in the entrance hall and in the various lounges. In addition, all issues are available online as PDF at www.myESR.org/publications.

**ECR 2020 APP**

The **ECR 2020 App** gives iOS and Android users a perfect way to experience the congress. The app is packed with numerous features, including general congress information, scientific, educational and industry programme details, full abstracts of the Research Presentation and MyT3 sessions, floor plans, **ECR Today** online news, ECR Radio etc. You can download the ECR 2020 App both in the App Store (iOS) and Google Play Store (Android). Please search for ‘European Congress of Radiology’ in your App store.

**EFRS MEETS SESSION**

For the 8th time at ECR, you can attend the ‘EFRS meets’ sessions, hosted by the **European Federation of Radiographer Societies (EFRS)** and dedicated to their member societies. For ECR 2020, the EFRS will meet **Slovenia**, presenting a tour of Slovenia through modalities, and the **Netherlands**, sharing their insights about radiation protection.

Please refer to page 73 for the programme of the session.
All delegates who have a valid congress registration will be granted free live and on-demand access until March 31, 2020.

connect.myESR.org

ECR 2020 LIVE AND ON-DEMAND*

Watch more than 4,000 lectures online live and on-demand on ESR Connect.

connect.myESR.org

ECR 2020 Live is exclusively sponsored by SIEMENS Healthineers

*All delegates who have a valid congress registration will be granted free live and on-demand access until March 31, 2020.
EIBIR LOUNGE
Visit the EIBIR Lounge in the ACV Business Centre, next to Café Mottó at the main entrance, to find out more about the future of biomedical research, funding opportunities, project management support and cutting-edge project results and achievements from the European Institute for Biomedical Imaging Research.

EMERGENCY INFORMATION/FIRST AID
For fire, medical or police assistance, please contact the ACV (Austria Center Vienna) Information or the nearest available ECR or ACV staff member. A medical specialist trained in emergency medicine will be present for the duration of the congress.

See Red Cross sign on the Floor Plan pages 33–41 (entrance level).

EPOS LOUNGE
The EPOS Lounge has 130 computer terminals where delegates can access the ECR’s electronic poster exhibition and watch ECR sessions either live or on demand. In addition, other material, such as EuroSafe Imaging congress posters, and the Cases of the Day can be accessed too.

Enjoy the Lounge’s relaxing atmosphere while you catch up with the congress sessions.

EPOS™ – SCIENTIFIC POSTER EXHIBITION
The ECR 2020 electronic scientific poster exhibition, which also presents the EuroSafe Imaging posters on medical radiation protection topics, is open Wednesday to Saturday from 08:00 to 18:00, and Sunday from 08:00 to 14:00. EPOS can be accessed via the 130 workstations in the EPOS Lounge, which is located on the 1st level.

Make sure to attend the Voice of EPOS sessions on the EPOS Stages in and around the EPOS Lounge, where the authors of the best posters will present those in moderated poster sessions.

See pages 201–210.

ESCAPE ROOMS
After its hugely popular debut last year, the Young Radiologists’ initiative is back. This year two Escape Rooms full of challenges related to radiology await you on level 3 of the Hotel Meliá (DC Tower). Register via the ECR App one week prior to ECR 2020.

ESR AT WORK SESSIONS
The ‘ESR at Work Sessions’ are organised by bodies of the European Society of Radiology to showcase their current activities. These sessions are either listed in the relevant section of the programme or are indicated below the session title, if a session organised by the ESR body is integrated under another session type. The following ESR bodies will have dedicated sessions during the congress: ESR Audit & Standards Subcommittee, ESR eHealth Subcommittee, ESR EIBALL (European Imaging Biomarkers Alliance) Subcommittee, EuroSafe Imaging Steering Committee, ESR PIER (Professional Issues and Economics in Radiology) Subcommittee, ESR RTF (Radiology Trainees Forum) Subcommittee, ESR Patient Advisory Group, ESR Ultrasound Subcommittee, ESR Undergraduate Education Subcommittee.

See pages 135–137.

ESR IGuide
Visit the ESR iGuide booth, located within the EuroSafe Imaging Lounge (1st level) to find out more about the ESR’s clinical decision support (CDS) software for imaging referrals. Provided by the ESR’s Quality and Safety in Imaging GmbH, ESR iGuide utilises referral guidelines developed by the ESR in cooperation with the American College of Radiology to provide actionable decision support for more appropriate imaging referrals.

ESR MEETS LOUNGE
Visit the ESR Meets Lounge in the entrance hall! Whether you are looking for an ideal meeting point or just want to take a short break – the ESR Meets Lounge will suit your needs.

Watch out for artistic performances happening here.

ESR MEETS SESSIONS
The ‘ESR Meets’ Sessions are an opportunity for the radiological community to gain a greater insight into the innovations and perspectives of other nations, while also strengthening the bonds between the ESR and its guest societies. This year, the ESR is proud to host the countries of Canada, Croatia (as a tribute to the home of ESR President Boris Brkljačić), Slovakia, Slovenia, and Israel. Please refer to pages 71–73 for the programme of the sessions.
EUROPEAN BOARD OF RADIOLOGY (EBR)
The EBR has again a special home at the ECR! Visit the EBR Booth on the far-left side of the entrance hall to learn all about the European Diploma in Radiology (EDiR), how to apply, and where and when the next exams will take place. In addition, receive here all information about the Accreditation Council in Imaging (ACI), required criteria, documents and latest news in the field of radiology accreditation; and about the European Training Assessment Programme (ETAP), which as ETAP 2.0 is now turning physical assessment visits into virtual assessment.
www.myEBR.org

EUROPEAN DIPLOMA IN RADIOLOGY (EDiR)
An examination for the European Diploma in Radiology is being held at ECR 2020. The examination takes place on Tuesday, March 10, in the EPOS Lounge on the 1st level. Success in the examination certifies a standard of radiological knowledge deemed appropriate by the ESR for independent practice in general radiology.

Don’t miss the EDiR Sessions on Wednesday, March 11, 12:45–13:15, Thursday, March 12, 12:45–13:15 and Friday, March 13, 12:45–13:45, all in Room M 5, and the Coffee & Talk Session on EDiR on Friday, March 13, 16:00–17:00 in Room Coffee & Talk 1!
www.myEBR.org

EUROPEAN EXCELLENCE IN EDUCATION (E3)
The E3 programme emphasises the importance of lifelong learning. It covers the entire range of educational issues, from undergraduate medical education to subspecialised continuing professional development. The E3 programme is structured according to the different levels defined by the ESR European Training Curriculum for Radiology (ETC).

The programmes offer participants the chance to refresh their knowledge in fundamental topics of imaging. Structured around a case-based approach, these sessions are a return to traditional education wherein experienced teachers share insights from their field of expertise while incorporating interaction from the audience. This year, the Beauty of Basic Knowledge sessions focus on the areas of the breast and pancreas, allowing anyone from new residents to board-certified radiologists to strengthen their understanding in these essentials of radiology.

The Advanced Courses is a series dedicated to a particular area of radiology spanning across several days of the congress. This year’s programme covers subjects not only of great interest, but also of great relevance, including artificial intelligence and improvements in cardiothoracic imaging. A light is shone on the hot topics in emergency radiology and GU cancer.

The Advanced Courses are particularly suited to general radiologists or radiologists with a subspecialisation.

The ECR Master Classes focus on continuous professional development and lifelong learning. The classes are designed for subspecialised radiologists seeking cutting-edge information in their fields. They are held by experts in the field and reflect state-of-the-art knowledge, as well as emerging trends.

‘EUROPEAN RADIOLOGY’
European Radiology is Europe’s number one journal in general radiology. As a green meeting, the ECR is committed to reducing print items; therefore, no copies of European Radiology will be distributed at ECR 2020. You can browse through sample copies of European Radiology while having a coffee in the Journals Corner in the entrance hall (Friday to Sunday). All active members of the ESR have free access to the journal via the MyUserArea > myJournals.
‘EUROPEAN RADIOLOGY EXPERIMENTAL’

European Radiology Experimental is the youngest member of the ESR journal family. This gold Open Access online journal focuses on basic scientific discoveries and novel approaches in experimental settings. European Radiology Experimental can be read without restrictions via www.er-x.org.

EUROPEAN SCHOOL OF RADIOLOGY (ESOR)

For the latest news on the European School of Radiology visit the ESOR Lounge on the 2nd level in Foyer B. Don’t miss the ESOR Session ‘Education in research’ on Thursday, March 12, 14:00-15:30 in Room M 3 and the following Coffee & Talk Sessions in Room Coffee & Talk 1:
- ‘The scholar and fellow’s experience’ on Wednesday, March 11, 12:45-13:45
- ‘Quality and standards’ on Wednesday, March 11, 16:00-17:00
- ‘Imaging research: making the most of our opportunities’ on Thursday, March 12, 09:00-10:00
- ‘ESOR and its role in online education’ on Thursday, March 12, 12:45-13:45
- ‘What would the next generation of radiologists look like?’ on Friday, March 13, 09:00-10:00
- ‘The European Diploma in Radiology (EDiR) as an instrument to develop a professional career’ on Friday, March 13, 16:00-17:00
- ‘Why are research fellowships important for young radiologists?’ on Saturday, March 14, 09:00-10:00
- ‘ESOR one-year fellowship’ on Saturday, March 14, 14:00-15:00

EUROSAFE IMAGING

EuroSafe Imaging, the ESR’s flagship initiative on radiation protection, aims to promote the safe and appropriate use of medical imaging in Europe and around the world. Visit the EuroSafe Imaging Lounge on the 1st level and learn more about radiation protection and safety in medical imaging. Stop by the Paediatric Corner in the Lounge to learn how EuroSafe Imaging helps to ensure the highest standards in paediatric radiology and view the EuroSafe Imaging Poster exhibition, with submissions from all over Europe and beyond. Visit the ESR iGuide Booth for a demonstration of the ESR’s clinical decision support solution utilising the society’s imaging referral guidelines. Don’t miss the Coffee & Talk sessions happening in the Lounge (see pages 103-107 for details) and the session jointly organised with the IAEA on ‘Building capacity and quality/safety awareness in Africa’ on Wednesday, March 11, 16:00-17:30, Room Coffee & Talk 2 (1st level).

EXPO HALLS & EXPO FOYER D & EXPO GALLERY

Opening hours:
Wednesday, March 11 to Saturday, March 14: 10:00-17:00

FREE PUBLICATIONS

The ESR again presents a ‘Free Publications’ area, in the ACV Business Centre, next to Café Motto at the main entrance. Pick up free copies of radiology journals and magazines.

GRAND FINALE

Brand new to ECR 2020, the Grand Finale will feature a colourful fusion of inspirational talks, musical performances and visual spectacles. Based on the themes of this year’s ‘Children in Focus’ programme, the highlights of the session will come from three extraordinary young speakers sharing their thought-provoking personal stories. The Grand Finale will be open to both congress attendees and the public with content that is relevant and interesting to all age groups and professions. The ECR 2020 Grand Finale will take place Sunday, March 15, 12:30-14:00 in the Forum (Room A, 2nd Level).

GRAND OPENING

The ECR 2020 Grand Opening will bear the motto ‘Adagio’. This term, which refers to a slow tempo and graceful movements, is borrowed from the world of music, and it encapsulates our guiding philosophy for what will be a beautiful and memorable occasion. ESR Honorary Membership and Gold Medals will be awarded, and, in good ECR tradition, music will play a major part. The ECR 2020 Grand Opening will take place Wednesday, March 11, 17:45-19:15 in the Forum (Room A, 2nd level).

GREEN MEETING

The ESR is on its way to hold yet another green meeting with ECR 2020. Being awarded the Austrian Ecolabel (Österreichisches Umweltzeichen) for the first time in 2014, we have implemented numerous measures designed to reduce the congress’ environmental impact and are striving to expand our efforts every year. In this sense, we are happy to inform you of our biggest plan under the banner of environmental awareness yet: For every attendee who takes part in ECR 2020 the ESR will plant a tree! Please support us in our endeavour to keep our congress green by using public means of transport, offsetting your CO2 emissions and refilling your ECR 2020 water bottles, for example.
IN MEMORIAM HELEN M. L. CARTY

Explore a range of healthcare and social issues affecting children and young people at this year’s congress. Children in Focus will feature speakers from across the spectrum of healthcare industries, sharing inspirational stories from their own personal experiences, offering insights, and debating the tough questions about children and the care they receive around the world.

Four special sessions
25 professional speakers
Extended panel discussions with audience interactivity
Complimentary coffee and cake

Room O
Thursday, March 12: 14:00–17:30
Friday, March 13: 14:00–17:30

Carnation, Lily, Lily, Rose
Painted by John Singer Sargent
Tate Britain Museum, London
HANDS-ON WORKSHOPS

ECR 2020 will feature Hands-on Workshops in MRI and Ultrasound modalities encouraging attendees to practise and test their existing skills whilst simultaneously adopting the latest techniques in a new and interactive way (for more details see pages 131-134).

The MRI Hands-on Workshops are already a well-established tradition at ECR, with this year’s programme including workshops on MRI of Prostate and MRI of the Pelvic Floor.

The number of participants at each workshop is restricted to 50.

The Ultrasound Hands-on Workshops will include sessions in five different topics. Participants will learn from experts and will practice in small groups. The number of participants at each workshop is restricted to 30. Additionally, participants are invited to the Ultrasound Quiz sessions to test their knowledge, the winner of the quiz will be awarded a prize.

Participants are asked to pre-register at the Workshops Registration Booth in the entrance hall. For the opening hours, please see page 2.

HELPDESK

If you need any help with the ECR 2020 App, with your ECR SmartTag, your CME accreditation or your evaluation, just ask our friendly and supportive staff at the Helpdesk in the entrance hall.

HYBRID IMAGING

ECR 2020 has been recognised as the official annual scientific meeting of the European Society of Hybrid, Molecular and Translational Imaging (ESHMT), the fastest growing medical community for hybrid imaging in Europe, which was inaugurated in 2016 and already boasts more than 1,500 members. In the last few years, hybrid imaging has consistently been a key theme at the ESR’s annual meeting and, through continued cooperation with ESHMT, congress participants can find a comprehensive programme with everything there is to know about this topic at ECR 2020. From high-quality lectures and speakers to a technical exhibition that features more hybrid imaging exhibitors than ever before, the meeting provides educational, social and business opportunities for all.

‘IN FOCUS’ PROGRAMME

Following the success of ECR 2019’s ‘Women in Focus’ programme, ECR 2020 will see a brand new and exclusive ‘in Focus’ feature. This year’s programme, titled ‘Children in Focus’, is dedicated to the late Helen M.L. Carty, ECR 2004 Congress President and a pioneer in paediatric imaging. Developed in proud partnership with the European Society of Paediatric Radiology (ESPR), the programme will explore a range of healthcare and social issues affecting children and young people, with the aim of stimulating discussion on many aspects of childhood and medicine. See pages 75-76.

INDUSTRY WORKSHOPS

At ECR 2020, there are various Industry Workshops scheduled, organised by Bayer, Canon, FujiFilm, GE HealthCare, Hologic, Mammotome and Philips. Screenpoint Medical, Planmed and Materialise are organising mini workshops. Please note that Industry Workshops are not CME-accredited.


‘INSIGHTS INTO IMAGING’

Insights into Imaging is the ESR’s gold Open Access journal for education and critical reviews. The journal can be read without restrictions via www.i3-journal.org.

INTERACTIVE VOTING

The ESR offers interactive presentations with live voting. Search for this symbol (below) throughout the programme to find out which presentations are interactive. To participate in the Interactive Voting use the ECR 2020 App.

INTERNATIONAL VILLAGE

More than 50 national and international radiological societies present their meetings and societies in the International Village, which is located on the entrance level of the M Building.

Radiographer societies including the European Federation of Radiographer Societies (EFRS) are represented with their booths in Foyer C on the 2nd level.

INVEST IN THE YOUTH

Over the last 17 years, the ESR has invited more than 8,000 young radiology residents, medical physics PhD students and radiographers in training to the European Congress of Radiology, investing more than €5 million in its flagship youth project.
Grand Finale

Sunday, March 15
12:30 – 14:00
FORUM (Room A)

EUROPEAN SOCIETY OF RADIOLOGY
IN PROUD PARTNERSHIP WITH
EUROPEAN SOCIETY OF PAEDIATRIC RADIOLOGY
ISRRT MEETS SESSIONS

The International Society of Radiographers and Radiological Technologists (ISRRT) will meet radiographers from Canada and Japan at ECR 2020, who will share insights from their national perspectives on the radiographer profession and potential challenges in the future. Please refer to pages 71-73 for the programme of the sessions.

JOINT SESSIONS

In addition to the Transatlantic Course of the ESR and RSNA (see pages 101-102), which will deal with stroke imaging and endovascular treatment, the ESR holds joint sessions with related societies during the congress. The Joint Sessions are an opportunity to gain a deeper insight into the multidisciplinary collaboration of the ESR with many other disciplines related to the world of medical imaging. The sessions highlight collaborative efforts regarding science and professional issues. Furthermore, a joint session between the EFRS and ISRRT will explore the current landscape relating to artificial intelligence and the radiographer profession. Please see pages 139-145.

(JUNIOR) IMAGE INTERPRETATION QUIZ

The Image Interpretation Quizzes are two traditional highlights of every ECR. This year’s themes are ‘Humans vs Machines’ and ‘Heroes assemble: join our ranks’ (see pages 77-78).

LIABILITY

The ESR and the Austria Center Vienna are free from all liabilities that may arise from the delegates’ and presenters’ participation in ECR 2020 and its activities.

LOST & FOUND

Lost and found articles may be picked up or handed in at the ECR Information Desk located in the entrance area.

MEDITATION & PRAYER ZONE

The Meditation & Prayer Zone is located on the lower level next to Room G. You will find it marked on the Floor Plan.

MEETING ROOMS

Meeting rooms at ECR 2020 are to be found here:

In the Austria Center Vienna

Entrance Level: 0.51
1st level: 1.85
2nd level: Meeting Rooms 2.33, 2.34, 2.41, 2.43, 2.44, 2.61, 2.95

In the adjoining M Building

Entrance level: Meeting Rooms M6, M7, M8, M9, M11, M12, M13, M15, M16, M17, M18, M19, M22, M23, M24, M25, M26, M27, M29, M30, M31, M32, M34.

You will find them marked on the Floor Plans (see pages 33-41).

Please contact the Info Service Desk in the main lobby of the M Building for onsite booking of meeting rooms; on Sunday please contact the Meeting Room Service Desk at the registration desks.

MEMBERSHIP

For membership application and renewal, please go to the membership desk (within the registration area) in the entrance hall.

MOBILE PHONES

Please do not forget to turn your mobile phone to silent mode during the sessions. Also remember that it is not allowed to take pictures or film during the sessions.

MULTIDISCIPLINARY SESSIONS

The concept of these sessions is to promote a multidisciplinary approach to detection and treatment, integrating radiologists and other clinicians to share their expertise. The topics that are covered this year are: breast cancer, liver transplantation, dysplasia of the hip, and epilepsy. Please refer to pages 97-98 for the programme of the sessions.

MyT3 – MY THESIS IN 3 MINUTES

ECR 2020 features again this popular session format where speakers share their research in just three minutes! In 11 sessions, PhD candidates and already experienced researchers from different fields of radiology defend their theses and present results of their research. Please refer to pages 183-195 for the programme of the sessions.
NEW HORIZONS SESSIONS
The aim of the New Horizons Sessions is to provide practitioners with an overview of the new developments in a specific area of practice e.g. specialty, technique, or disease. These developments indicate a new direction for research and clinical applications. This year’s sessions deal with Alzheimer’s disease, MRI of the future, and lung cancer screenings in Europe. Please refer to pages 79–80 for the programme of the sessions.

PARTICIPATE FROM HOME / EPOS ONLY
Professionals unable to attend ECR 2020 on site have the opportunity to purchase the ‘Participate from home’ or ‘EPOS only’ ticket and attend the congress online by watching the live stream of sessions via ‘ECR Live’ on ESR Connect.
In order to claim CME credits with a ‘Participate from home’ or ‘EPOS only’ ticket, it is mandatory to attend sessions online by watching the live stream in full length and to evaluate the relevant sessions afterwards. Please note that evaluation of the sessions is only possible from March 11 until March 16, 2020 (23:59 CET). CME credits will only be awarded if you have:
• Purchased a ‘Participate from home’ or ‘EPOS only’ ticket
• Attended sessions in full by watching the live stream via ECR Live
• Logged into http://eval.myESR.org with your
• Username and Password or Last Name and Personal ID (printed on your badge)
• Completed the electronic questionnaire for each session you attended in full
• Completed the electronic ‘Overall Congress Evaluation’ questionnaire

PHYSICS IN MEDICAL IMAGING
The ESR is happy to welcome an increasing number of medical physicists to its annual meeting every year. ECR 2020 offers an innovative, extensive and custom-made programme for medical physicists, which was developed in close collaboration with the European Federation of Organisations for Medical Physics (EFOMP). ESR and EFOMP will also hold a joint session on ‘Photon counting detectors: system design and clinical applications of an emerging technology’ (see page 143) and this year’s EFOMP Workshop will be dedicated to CT protocol management and optimisation (see page 140).

PLENARY LECTURES
This year’s Plenary Lectures go beyond radiology and dive in into the world of neuroscience (Nenad Šestan from Yale), the wild lives of our cells (Ralph Weissleder from Harvard) and matters of digitalisation in healthcare (Siemens Healthineers CEO Bernd Montag). For more details see page 8.

PRESENTATION AWARDS
Research Papers: The award will be assigned to the best paper presentation of each topic based on the evaluation by session moderators and subcommittee members. Selection criteria comprise quality of presentation, scientific content and overall impression of the performance.
The award winners will be informed after the congress and will be published on the ESR website. In addition, they will receive free ECR 2021 registration.
Scientific/educational exhibits: The EPOS reviewer team and the scientific subcommittee members evaluate all submitted posters. Authors of the Magna Cum Laude posters will receive free registration to ECR 2021 and diplomas, which will be awarded on Wednesday, March 11, at 12:30 in the EPOS Lounge.

PRESS
The ECR 2020 Opening Press Conference takes place on Wednesday, March 11, 10:00–11:00 at Room 3.29 on the 3rd level of the Austria Center Vienna. For press accreditation, please contact the Press Office & Business Centre on the entrance level. To obtain a press badge, you must present an international press ID or a confirmation letter from the relevant medium.
Delegates and exhibitors may display their press kits in the Press Office & Business Centre. There are also several publicly available computer terminals as well as workspace and plug points for you to work with your personal laptop. Please note that there are no printing or copying facilities in the Press Office.
Opening hours: Wednesday, March 11 to Saturday, March 14 . . .08:00–18:00 Sunday, March 15 . . . 08:00–14:00
PROFESSIONAL CHALLENGES SESSIONS
These sessions are intended to convey challenges that radiologists face during training and education, research networking, and with management and professional developments in radiology. ECR 2020 will touch upon the following professional challenges: audit and value in clinical radiology, patient engagement and eHealth, postgraduate training for radiographers, equipment purchasing, and challenges facing the radiology workforce. Please refer to pages 89–90 for the sessions’ programme.

PROS & CONS SESSION
The Pros & Cons Session examines a controversial topic and is concluded by an interactive discussion. This year’s topic is ‘Breast cancer: to screen or not to screen?’ and the session takes place on Wednesday, March 11, 16:00–17:30, in Room E. See page 99.

PUBLIC TRANSPORT
Find information on the official Vienna Public Transport website. Tickets are available online at shop.wienerlinien.at or at any underground station. Underground map; see page 32.

RADIOGRAPHERS’ PROGRAMME
The ECR is recognised as the official annual scientific meeting for medical imaging for radiographers by both the European Federation of Radiographer Societies (EFRS) and the European Society of Radiology (ESR). In cooperation with the EFRS, ECR offers a comprehensive and perfectly tailored programme for radiographers in various stages of experience. For further details please visit the ESR website (myESR.org/radiographers).
For the third time, at ECR 2020, the three best radiographer research presentation abstracts, the three best radiographer posters and the best radiography student abstract will be awarded by the ESR and the EFRS.

RADIOLOGY TRAINEES FORUM (RTF)
The RTF promotes and coordinates the efforts of radiology trainees at a European level in order to improve the progress of radiology and related sciences. Highlighted Lectures organised by the RTF will deal with topics of interest to the trainees, such as imaging of the knee, bone and head and neck lesions (see page 114). The RTF delegates meeting takes place on Friday, March 13, 11:15–12:15, in Meeting Room M6 (M Building). For more detailed information please visit the RTF Meeting Point in the Rising Stars Lounge at the Tech Gate.
Don’t miss the Meet & Greet Session with ESR President Boris Brkljačić (Friday, March 13, 15:30–16:00) in the Rising Stars Lounge. Join us for the RTF Quiz titled ‘Beating heart of radiology’ with the two new quiz masters, Marco Francone and Christian Loewe, on Thursday, March 12, 16:00–17:30 in Room E (see page 114).

RECORDING / PHOTOGRAPHY
Video or audio recording of presentations is not allowed without the speaker’s/exhibitor’s and ECR’s prior permission. Flash photography is not permitted during presentations. Interviews must take place outside the lecture room. For queries, please contact the ESR Press Office. Please note that participants might be photographed and filmed during their attendance of lectures, presentations, speeches and other scientific events and during their presence in the exhibition and reception areas. Film material is broadcast by video and audio streaming in the course of the ‘ECR Live’ project. Photographs may be used for various ESR promotional purposes.

REFRESHER COURSES
80 Refresher Courses have been organised by the various scientific subcommittees for ECR 2020. The aim of these sessions is not only to refresh the audience’s knowledge, but also to review, inform, and offer updates of the various fields through engaging presentations. Please refer to pages 147–177 for the programme of the sessions.

REGISTRATION OPENING HOURS
Tuesday, March 10 ........................ 14:00–17:00
Wednesday, March 11 ...................... 07:00–18:00
Thursday, March 12 to Saturday, March 14 . . .07:30–18:00
Sunday, March 15 ............................. 07:30–14:00
RESEARCH PRESENTATION SESSIONS
Accepted research papers for oral presentation are presented in the 128 Research Presentation Sessions, formerly known as Scientific Sessions. Several sessions feature keynote lectures with a concise educational introduction related to the topic. This year’s new scheduling system allows for more exclusive time for the newest advancements in research. Check the schedule for the time slots (on Thursday, Friday, Saturday) dedicated entirely to Research Presentation Sessions. Please refer to pages 147–177 for the programme of the sessions.

RESTAURANT RESERVATIONS
Our staff at the Restaurant Reservations Desk in the entrance hall will be pleased to recommend places to eat close to your hotel or near a certain theatre and will be happy to reserve a table for you.

RISING STARS LOUNGE / RESIDENTS & STUDENTS LOUNGE
The Rising Stars Lounge for residents and students is located on level 7 of the Tech Gate, providing a spectacular view of Vienna. In the lounge you will find information on the European School of Radiology, the European Diploma of Radiology and the Radiology Trainees Forum. Don’t miss the Meet & Greet Session with ESR President Boris Brkljačić (Friday, March 13, 15:30–16:00).

RISING STARS PROGRAMME
The E³ – Rising Stars Programme is part of the E³ – European Excellence in Education programme. See pages 111–114.

ROOM ON DEMAND
For the first time at ECR, the attendees will be deciding, based on their interest, in which room a session should be held. The sessions underlying the concept ‘Room on Demand’ are marked in the programme. The attendees will be asked to vote for the sessions they wish to attend via the ECR App. Based on the participants’ feedback, the sessions will be assigned to the appropriate room. Be aware of the incoming notifications in the app for the voting and notification of the final room!

SATELLITE SYMPOSIA
Industrial Satellite Symposia are presented by international companies. Please note that Satellite Symposia are not CME-accredited. See booklet ‘Industry Programme & On-Show Guide’ for details.

SCIENCE LOUNGE
ECR faculty will this year for the first time enjoy its very own lounge. The former ‘Congress Office’ and ‘Preview Centre’ are joined into the Science Lounge where the ‘Presentation Upload’, ‘Moderator Check-In Desk’, ‘Faculty Support’, and the catering area will ensure that the ECR faculty gets everything in one place. Access is granted exclusively to faculty members. The Science Lounge is located in the main building, on the first level, opposite Room O.

Opening hours:
Tuesday, March 10 .................. 14:00–17:00
Wednesday, March 11 .............. 07:00–18:00
Thursday, March 12 to Saturday, March 14 .................. 07:30–18:00
Sunday, March 15 .................. 07:30–14:00

SECURITY / SAFETY
The safety of all congress attendees is of utmost importance to the European Society of Radiology. The Austria Center Vienna and the ESR have taken security precautions to ensure the maximum possible safety for all ECR participants. Please inform our staff, especially our room attendants, immediately if security problems occur. The ESR reserves the right to check your identification upon admission to the congress centre and/or inside the building. You may be asked at any time to present adequate proof of identity by showing your passport, driver’s licence, national or military identification, or student ID, all with photograph and signature.

SMOKING
Smoking is not permitted inside the Austria Center Vienna. The ECR is a non-smoking congress. Outside the building, we kindly ask you to use the ashtrays provided. Please note that smoking is prohibited in front of the main entrance.

SOCIAL MEDIA
Keep up with goings on at ECR 2020 by following the ESR on Twitter and Instagram (both @myESR), as well as Facebook (facebook.com/myESR). The official congress hashtag is #ECR2020.

SPECIAL ASSISTANCE
Delegates with special needs may park on the lower level with direct elevator access to the Austria Center. All lecture rooms are accessible by wheelchair.
SPECIAL FOCUS SESSIONS
Special Focus Sessions deal with a topic at the cutting edge of development and clinical application. The topics of these sessions are presented to promote debate and to give an in-depth analysis. The chairperson introduces each aspect of the topic and the panellists then discuss their different perspectives and opinions. The audience is also given the opportunity to discuss their ideas with the lecturers. Please refer to pages 83–88 for the programme of the sessions.

STATE OF THE ART SYMPOSIA
These sessions are intended to inform the audience about the ‘real state of the art’ of a given subject. Each of the lecturers is an expert on the topic as a whole or on some specific aspect of the topic, which will be the subject of the respective session. The presentations are followed by a discussion conducted by the panellists, led by the chairperson. Please refer to pages 81–82 for the programme of the sessions.

STUDENTS’ SESSIONS
At ECR 2020, students have again the chance to present their own abstracts in front of a huge audience. The submitters of the best 32 abstracts have been invited to Vienna to present their work in dedicated sessions. See pages 179–181.

TAXI
Please note that, as of ECR 2020, due to security reasons, taxis may no longer access the drive and parking zone directly in front of the Austria Center. Taxis may enter the car park of the Austria Center, which will now become the main pick-up and drop-off area for participants. Due to limited space for queuing (for both taxis and delegates), all congress participants are encouraged to use public transportation!
A small taxi stand is available near the underground station.

TECHNICAL EXHIBITION
Opening hours:
EXPO Halls, EXPO Foyer D and Expo Gallery (1st level, ACV)
Wednesday, March 11 to Saturday, March 14 . . . 10:00–17:00
Detailed information on the Technical Exhibition can be found in the ‘Industry Programme & On-Show Guide’.

WATER BOTTLES
Attendees will receive a free, refillable water bottle at ECR 2020. Together with your congress material (badge, lanyard etc.) you already have or will receive a voucher that can be exchanged for a water bottle at one of our bottle distribution stations located in Foyer Café G and Foyer Café K, on the lower level of the congress venue. You can then fill and refill your bottle at filling points located at the ESR Meets Lounge and in Foyers B, E, G and K.

WIFI
Free wireless LAN access is available throughout the congress venue and all lecture rooms. The name of the public WiFi is ‘ECR2020’.
CME AT ECR 2020

GENERAL INFORMATION

The ESR is happy to provide you with a fully digital CME acquisition system for ECR 2020. In order to claim CME credits, it is necessary to visit sessions with your ECR SmartTag and evaluate them afterwards via your smartphone, tablet, laptop or via one of the 120 laptops on the 1st level in the EPOS™ Lounge.

You can only receive the number of credits you are entitled to according to your actual participation at the event once you have completed the feedback form.

CME credits will only be awarded if
- You have attended sessions in full, wearing your ECR SmartTag
- You have fully completed the electronic questionnaire for each session you attended
- You have completed the electronic ‘Overall Congress Evaluation’ questionnaire

Europe

For Europe, the event has been accredited by the European Accreditation Council for Continuing Medical Education (EACCME®) of the European Union of Medical Specialists (UEMS) for a maximum of 35 European CME credits (ECMEC®s). Each medical specialist should claim only those hours of credit that they actually spent in the educational activity.

Please note that the number of CME credits may differ from the maximum number of credits your national jurisdiction approves for your continuous medical education. For more information see CME CONFIRMATION below.

The Österreichische Ärztekammer (Austrian Medical Chamber) has granted a maximum of 46 DFP (Diplom-Fortbildungs-Programm der Österreichischen Akademie der Ärzte) credits for ECR 2020.

USA and Canada

Through an agreement between the UEMS and the American Medical Association, physicians may convert EACCME® credits to an equivalent number of AMA PRA Category 1 Credits™. Information on the process to convert EACCME® credits to AMA credits can be found at www.ama-assn.org/education/earn-credit-participation-international-activities.

Live educational activities, occurring outside of Canada, recognised by the UEMS-EACCME® for ECMEC®s are deemed to be Accredited Group Learning Activities (Section 1) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada.

Worldwide

CME points claimed at the ECR are accepted by the majority of national CME authorities worldwide where CME is mandatory for physicians. Please consult your national jurisdiction for the maximum number of CME points it will approve following your attendance at ECR 2020.

PARTICIPATE FROM HOME / EPOS ONLY

You will be able to claim CME for the sessions you attend online via our live streaming platform ESR Connect.

CME credits will only be awarded if
- You have purchased a ‘Participate from home’ or ‘EPOS only’ ticket
- You have attended sessions online via live stream in full length
- You have fully completed the electronic questionnaire for each session you attended
- You have completed the electronic ‘Overall Congress Evaluation’ questionnaire

ONLINE EVALUATION SYSTEM

The online evaluation system is available at eval.myESR.org, where you must
- Log in with your Username & Password or Last name & Personal ID (printed on your badge)
- Complete the electronic questionnaire for each session you attended in full, in order to claim CMEs
- Complete the electronic ‘Overall Congress Evaluation’ questionnaire

Or via the ECR 2020 App (available at myESR.org/app). Evaluation and CME acquisition will also be possible at the congress centre on 130 laptops in the EPOS™ Lounge, located on the 1st level.

The online evaluation of the sessions is possible from Wednesday, March 11 until Monday, March 16 (23:59 CET), 2020. Evaluation is not possible, and no CME credits can be obtained, after this date. Note that the respective online evaluation sheets are available only after the session has started. Make sure to submit your evaluations of the sessions before the deadline!

The combined participation and evaluation questionnaire are of great value to the organising committee when selecting topics for future ECRs. Please note that different types of sessions may have different evaluation forms.
CONFIRMATIONS

Two confirmations can be obtained after the congress – Confirmation of Attendance and CME Confirmation.

Confirmation of Attendance:
» This document confirms attendance at ECR 2020, without listing specific sessions you have attended.
» Available for every ECR delegate at myESR.org/myUserArea after the congress. To log in, please use your username and password (if you forget these, please use your Last Name and Personal ID as indicated on your badge).
» Other option: from March 13, printing stations will be available to print out this confirmation onsite in the registration area.

CME Confirmation
» This document lists in exact detail all the sessions you have visited and evaluated during the congress. It also states the number of hours attended and the number of CME credits you have been awarded for ECR 2020.
» Your CME Confirmation is available from March 23 in the My User Area. To log in, please use your username and password (if you forget these, please use your Last Name and Personal ID as indicated on your badge).
» CME Confirmation for ECR 2020 will be available to download for two years (until March 2022).

The list of sessions is sometimes not identical to the total amount of CMEs earned. This may have several reasons:
» ECR 2020 has been accredited by the European Accreditation Council for Continuing Medical Education (EACCME®) of the European Union of Medical Specialists (UEMS) for a maximum of 35 European CME credits (ECMEC®s). Each medical specialist should claim only those hours of credit that he/she actually spent in the educational activity. According to the UEMS-EACCME® accreditation, a maximum of 8 CME credits can be awarded each for Wednesday to Saturday and up to 3 CME credits for Sunday. The maximum for the entire congress is 35 CME credits, so the ‘Total hours earned’ on your CME Confirmation document will never show more, even if the sum of all hours attended may be greater. So, if you, for example, attend 10 hours of sessions on a given day this will be listed on your CME Confirmation, but only 8 credits will be calculated into your total.
» Please note that there are 0 CME credits available for industry workshops and satellite symposia, although they are also listed on the CME Confirmation. In addition, CME credits cannot be earned for the ECR 2020 Grand Opening and the Grand Finale.

Although participants may partially attend multiple concurrent sessions, the total number of hours limits the credit to the equivalent of a single session during that time slot.

The printout of your CME Confirmation should be submitted to your national jurisdiction (usually responsible for accreditation) for approval of your CME credits. Please note that the CME Confirmation will be issued only to the participant. It will not be supplied to any accreditation agency or other organisation.

In case of questions, please contact our CME & SmartTag Helpdesk in the entrance hall or write to ESR’s CME support at cme@myESR.org.
Dive into interventional radiology at the Cube 3.0

The Cube offers a holistic, engaging and hands-on introduction to interventional radiology (IR), covering peripheral, central, oncological and neurological interventions, innovation, team work and more.

Enjoy interactive sessions delivered by expert interventionalists, train on the latest simulators, use the tools of the trade, interact with international IR experts and experience augmented realities that will transform IR teaching and practice.

Hotel Meliá, DC Tower

Open 8:30–17:30
March 11–14

For more information visit www.myESR.org/cube
THE GREEN WAVE CONTINUES

The ESR is on its way to hold yet another green meeting with ECR 2020. Being awarded the Austrian Ecolabel (Österreichisches Umweltzeichen) for the first time in 2014, we have implemented numerous measures designed to reduce the congress’ environmental impact and are striving to expand our efforts every year. Find some examples below.

Minimising the CO2 emissions is of central concern when running a green congress. Large congresses are by their nature power hungry events. Our venue, the Austria Center Vienna, prioritises green energy, which is essential to limiting a congress’ carbon footprint.

Encouraging and enabling the use of public transport by congress attendees is another means by which the ECR’s carbon footprint can be diminished. Vienna’s fully integrated public transport network makes getting to and from the congress simple no matter where attendees stay in the city.

Improving waste management is another important goal for any green congress. To reduce unnecessary waste, the ESR works with environmentally certified caterers who utilise reusable plates, drinking vessels and cutlery. Exhibitors are encouraged to reuse their stands and decoration and discouraged to distribute giveaways. Further, the amount of printed material used at the congress has been drastically reduced while making more materials, such as the congress’ programme, easily accessible online.

As far as digital developments go, our new video platform ESR Connect is an initiative that is very much in the spirit of green meetings. On ESR Connect you can ‘participate from home’ while still claiming CME credits. Also, ECR’s sessions are available on demand on this platform, extending the value of the knowledge transfer far beyond the 5 days of the congress.

And lastly, we are happy to inform you of our biggest plan under the banner of environmental awareness yet: For every attendee who takes part in ECR 2020 the ESR will plant a tree!

HOW YOU CAN MAKE A VALUABLE CONTRIBUTION:

• Use public means of transport. Vienna’s public transport network (www.wienerlinien.at) is operating from 05:00–00.30 daily, with additional services from 00.30–05.00 on Friday and Saturday nights.
  » The Austria Center Vienna can be reached using the underground U1 (red) line.
  » Alight at U1 station Kaisermühlen, VIC and take the Schüttaustrasse exit.
• Calculate and offset the CO2 emissions of your flight or car journey with myclimate.org.
• Stay hydrated by refilling your glass bottle at our water stations.
• Separate your rubbish. Different bins for plastic, paper and residual waste will be omnipresent across the event’s premises. Additionally, collection containers for cans and metal will be available at convenient locations.
• Return your badges at the boxes provided at the main entrance after the event.

PLEASE SUPPORT US IN OUR ENDEAVOUR TO KEEP OUR CONGRESS GREEN!

If you have any questions, please contact our Green Event Coordinator:
Maria Doppler, +43-1-5334064-326, maria.doppler@myESR.org
O - ENTRANCE LEVEL ACV

Floor Plans

MEETING ROOM

ECR BUSINESS CENTRE

EIBIR LOUNGE / FREE PUBLICATIONS

EXHIBITOR REGISTRATION & SERVICE DESK

EXPO X4

EXPO X5

M BUILDING

WORKSHOP ROOM
GE HEALTHCARE

WORKSHOP ROOM
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GE HEALTHCARE
1 - FIRST LEVEL

- MEETING ROOM
- EUROSAFE LOUNGE
- SCIENCE LOUNGE
- VOICE OF EPOS - STAGE 1
- VOICE OF EPOS - STAGE 2
- VOICE OF EPOS - STAGE 3
- VOICE OF EPOS - STAGE 4
- VOICE OF EPOS - STAGE 5

Floor Plans
-2 - LOWER LEVEL ACV
0 – ENTRANCE LEVEL M BUILDING
1 - FIRST LEVEL M BUILDING
GOOD MORNING, VIENNA!

The ECR 2020 morning radio show, brought to you live from the Austria Center Vienna.

Wednesday to Saturday
daily 07:30 – 10:30
with Stuart Freeman,
the British-Austrian radio legend
ESR
DIGNITARIES
DANTE R. CASALE MENIER  
Ciudad Juarez, Mexico  
HONORARY MEMBERSHIP

In recognition of his commitment to advancing radiology in Mexico and Latin America and boosting international cooperation with Europe, Professor Dante R. Casale Menier from Ciudad Juarez, Mexico, will receive ESR Honorary Membership at ECR 2020.

Dante R. Casale Menier is head of imaging at Angeles Hospital in Ciudad Juarez, which is part of Grupo Angeles, the largest private medical provider in Mexico. Previously, he was head of imaging at Hospital Pensiones Civiles del Estado in Chihuahua for 28 years and head of the imaging department at Hospital Poliplaza Medica in Ciudad Juarez for 19 years.

He is president elect of the Mexican Board of Radiology (CMRI) for the 2019–2021 term.

Professor Casale Menier graduated from the Autonomous University of Ciudad Juarez in 1980 and did his radiology residency from 1984 to 1987 at the Centro Medico Nacional 20 de Noviembre, Institute of Social Security and Services for State Workers in Mexico City, where he became chief resident in his third year.

He obtained an honorary mention for high marks and the silver medal Gabino Barrera from the Autonomous University of Mexico (UNAM). He subsequently returned home to Ciudad Juarez Autonomous University, where he worked as a professor at the school of medicine until 2017.

His main research interests have been in breast imaging and obstetrics and gynaecology.

In 1989, he helped create and was appointed founding president of the first radiology society in Ciudad Juarez, the Sociedad de Radiologia e Imagen de Ciudad Juarez, which later became Colegio de Especialistas en Radiología e Imagen de Ciudad Juarez.

Professor Casale Menier was the representative of the Society of Radiology of Ciudad Juarez to the Mexican Federation of Radiology (FMRI) from 1989 to 2002. He was subsequently appointed FMRI secretary, president elect and president.

He received the FMRI Gold Medal in 2012 and Radiological Merit Award in 2018. He is currently the chair of the FMRI international affairs committee.

Professor Casale Menier became involved with the Colegio Interamericano de Radiología (CIR) in 2002 and served as CIR president in 2014. In 2018 he received honorary membership from the organisation. Most recently, he was also awarded honorary membership from the Sociedade Paulista de Radiologia e Diagnóstico por Imagem (SPR).

YI-HONG CHOU  
Taipei City, Taiwan/Chinese Taipei  
HONORARY MEMBERSHIP

In recognition of his major contribution to ultrasound and abdominal imaging, and to homogenising education across Asia and Oceania, Professor Yi-Hong Chou from Taipei City, Taiwan/Chinese Taipei, will receive ESR Honorary Membership at ECR 2020.

Yi-Hong Chou is Chair and Professor of Radiology at Yuanpei University of Medical Technology and National Yang Ming University School of Medicine in Taipei City, Taiwan/Chinese Taipei. He is the former director of occupational safety and health administration and chief of medical ultrasound and breast imaging at Taipei Veterans General Hospital.

Prof. Chou is currently Vice President of the World Federation for Ultrasound in Medicine and Biology (WFUMB). He is the former president and chairman of the Education Committee of the Asian Federation of Societies for Ultrasound in Medicine and Biology (AFSUMB) and Society of Ultrasound in Medicine of the Republic of Taiwan (SUMROC), and editor-in-chief of the Journal of Medical Ultrasound, the official journal of the AFSUMB.

His research has centred on ultrasound, especially in the breast, and abdominal imaging, as well as emergency imaging. Currently his research focuses on clinical and experimental studies on various aspects of tumour vascularity with regard to Doppler techniques and microbubble contrast agents, and interventional techniques in tumour ablation.

He is immediate past president of the Asian-Oceanian Society of Radiology (AOSR). He is also immediate past president of the Asian Society of Abdominal Radiology (ASAR) and the Asian Breast Diseases Association (ABDA) as well as former president of the SUMROC.

Prof. Chou has been active in scientific and educational programmes nationally and internationally, and has organised a number of international congresses, workshops and symposia, particularly on ultrasound, imaging of the liver, breast imaging, and emergency and critical care.

He has been awarded more than 37 honours internationally and domestically. He is an honorary member of the Japanese Society of Radiology, Japanese Society of Ultrasound in Medicine, Korean Society of Ultrasound in Medicine, and Korean Society of Radiology, as well as an honorary fellow of the American Institute of Ultrasound in Medicine (AIUM). He is a gold medallist of ASAR, honorary speaker of the Society of Abdominal Radiology (SAR), honorary president of ACTA-Taipei, and honorary president of the World Interactive Network Focused On Critical Ultrasound (WINFOCUS) and World Congress of Ultrasound in Emergency and Critical Care.

Prof. Chou has authored 410 peer-reviewed publications and 395 abstracts since 1982, including 320 invited speeches. He has also published 18 chapters on various topics in ultrasound and radiology and has edited or co-edited five books on computer-aided imaging, breast imaging, imaging of acute abdomen, thoracic imaging, and contrast-enhanced ultrasound of the liver.
**VALERIE P. JACKSON**
Tucson, AZ/USA

**HONORARY MEMBERSHIP**

In recognition of her tremendous contribution to advancing radiology and particularly breast imaging, **Professor Valerie P. Jackson from Tucson, Arizona, will receive ESR Honorary Membership at ECR 2020.**

Valerie P. Jackson, MD, FACR, is the Eugene C. Klatte Professor Emeritus of Radiology at Indiana University School of Medicine in Indianapolis, Indiana, USA. She is the current President of the Radiological Society of North America (RSNA) and Executive Director of the American Board of Radiology (ABR), where she served on the board of trustees from 2001 to 2010.

Professor Jackson graduated from Indiana University School of Medicine in 1978, where she went on to complete her radiology residency in 1982 and served on the faculty in numerous roles until 2014. She was notably Chair of Indiana University (IU) Radiology from 2003 to May 2014.

Professor Jackson has been involved in research, education and national service for many years, primarily in the areas of breast imaging and radiology education. She has authored more than 110 publications and numerous book chapters. She was an author and editor for two editions of *Diagnosis of Diseases of the Breast*, a major textbook on breast imaging. She has given more than 500 presentations on breast imaging, education, and leadership.

Professor Jackson has served as a manuscript reviewer for numerous journals, including *American Journal of Roentgenology, Journal of the American College of Radiology, Investigative Radiology, Medical Physics, Academic Medicine, and Radiology*, where she served as associate editor on the editorial board from 1989 to 1998, and as a consultant to the editor in 1999.

She is a past president of the Society of Breast Imaging (SBI) and the American College of Radiology (ACR). She has been awarded gold medals by the Indiana Radiological Society, SBI, ACR, and the Association of University Radiologists.

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**RICHARD FITZGERALD**
Wolverhampton, UK

**GOLD MEDALLIST**

In recognition of his tremendous contribution to improving the working lives of radiologists, **Doctor Richard FitzGerald from Wolverhampton, United Kingdom, will receive the ESR Gold Medal at ECR 2020.**

Richard FitzGerald was a consultant radiologist at the Royal Wolverhampton Hospitals NHS Trust in Wolverhampton, UK, between 1986 and 2017. He completed his undergraduate medical education in Cork, Ireland, and his radiology training in the West Midlands, UK.

Dr. FitzGerald has had a major influence on the Royal College of Radiologists’ (RCR) publications and professional standards for 20 years; he was vice president of the Royal College of Radiologists Faculty of Radiology between 2014 and 2017.

His major publications are on the regulation of radiologists and teleradiology, optimising radiologists’ working lives and performance, supportive peer feedback and learning from reporting discrepancies. He has lectured extensively in the UK and across Europe to raise awareness of these issues.

He served as a UK General Medical Council radiologist assessor for twelve years and has also spent two decades providing mentorship to help radiologists in difficulty. His commitment to improving doctors’ working lives, and thereby their service to patients, also included membership of various British Medical Association committees for almost 14 years.

As RCR Vice President, Dr. FitzGerald promoted international recruitment of radiologists and support for radiologists new to the UK. He also represented UK radiologists within the Union of European Medical Specialists and the European Society of Radiology between 2002 and 2014, and was a member of the ESR Management in Radiology Subcommittee from 2010 to 2014.

In 2011, he encouraged the Jo Li Trust to establish an annual European School of Radiology Scholarship for Chinese radiologists to spend three months at University Hospital Birmingham.

Dr. FitzGerald has provided advice to the ESR on teleradiology regulation and EU legislation such as the EU Professional Qualifications Directive 2004-2005, the EU Directive on the application of patient’s rights in cross-border healthcare 2008-2011, and the EU-USA negotiations on a proposed Transatlantic Trade and Investment Partnership 2013-2015.

He has received many awards for his work, including Honorary Membership of the British Society of Interventional Radiology, the Exceptional Contribution Award of the Royal College of Radiologists, and Honorary Fellowship of the Faculty of Radiologists, Royal College of Surgeons in Ireland.
JIM REEKERS
Amsterdam, the Netherlands
GOLD MEDALLIST

In recognition of his pioneering work in interventional radiology and outspoken advocacy for image-guided treatment and evidence-based science, Professor Jim Reekers from Amsterdam, the Netherlands, will receive the ESR Gold Medal at ECR 2020.

Jim Reekers is professor emeritus of radiology at Amsterdam University. Although he is now retired, he is still very active and feels inspired to continue helping to advance interventional radiology, a field that he greatly helped to develop in the late 1980s.

Professor Reekers received his medical degree from Amsterdam University in 1981. During medical school, he became very interested in the new technological possibilities of medical imaging and especially the opportunities to use imaging for patient treatment. He dropped his initial plan to become a vascular surgeon and obtained his board certification in radiology in 1986, after which he became a staff member at Amsterdam University’s academic teaching hospital, the Amsterdam Medical Centre (AMC). He finished his doctoral thesis in 1994 and was appointed professor of radiology at Amsterdam University in 1999. He worked at the AMC until he retired as a clinical staff member in 2019.

Professor Reekers was one of the early leaders in interventional radiology. Early on, he recognised the potential of image-guided treatments and developed a special interventional section within the AMC’s department of radiology. Throughout his career, he has developed many new techniques and devices. He is notably the co-inventor of subintimal angioplasty, the hydrolyser thrombectomy catheter, the optease caval filter and the Reekross catheter. He was one of the first physicians to pioneer extreme crural revascularisations.

During his 36 years at the AMC, he trained many young interventional radiologists, wrote various books and book chapters, and published more than 250 peer-reviewed papers about interventional radiology.

Next to his academic work, he has always been a strong advocate for image-guided treatment and has given more than 600 lectures all over the world. He is currently the editor-in-chief of CVIREndovascular and he has served as president of several national and international organisations, such as the Cardiovascular and Interventional Radiological Society of Europe (CIRSE) and the Interventional radiology division of the European Union of Medical Specialists (UEMS). Professor Reekers is an honorary member of many international organisations, and has given the SIR Dotter lecture, the CIRSE Gruentzig lecture, the BSIR Wattie Fletcher lecture and the DRG Röntgen lecture. He initiated the European Curriculum for Interventional Radiology and the European Board of Interventional Radiology (EBIR) examination, which is now the standard for the field.

KATRINE RIKLUND
Umeå, Sweden
GOLD MEDALLIST

In recognition of her amazing accomplishments and leading role in hybrid, molecular and translational imaging, Professor Katrine Riklund from Umeå, Sweden, will receive the ESR Gold Medal at ECR 2020.

Katrine Riklund, MD, PhD is full professor and senior consultant in diagnostic radiology and nuclear medicine and pro-vice-chancellor of Umeå University. She previously headed both the clinical department of radiology and nuclear medicine at Umeå University Hospital and was head or deputy head of the university department of radiation sciences for more than ten years.

She served as deputy dean and in various leadership roles at the medical faculty of Umeå University and was programme director of the medical school between 2011 and 2016.

Professor Riklund has been using SPECT/CT, PET/CT and PET/MR extensively in oncology, also with a special focus on dopamine in cognitive decline. She has authored 130 scientific papers, five reviews, 48 meeting abstracts or proceeding papers and six book chapters. She is also the editor of one book, Nuklärmedicin, published in 2013 in Swedish.

Professor Riklund has served in many leadership roles for the European Society of Radiology (ESR) since 2009. She was the first Chairperson of the ESR Board of Directors and Executive Council from 2016 to 2017 and is the founding president of the European Society of Hybrid Medical Imaging, which later became the European Society for Hybrid, Molecular and Translational Imaging – ESHIMT.

Professor Riklund has made many substantial contributions to the European Congress of Radiology (ECR), serving as its President in 2016 and as a member of the Congress Committee before that. Radiation protection in medicine is another of her interests and between 2009 and 2015, she was an ordinary member of the C3 subcommittee of the International Commission on Radiological Protection (ICRP). She is still a member of Task Group 36: ‘Radiation Doses to Patients in Diagnostic Nuclear Medicine’ and the ESR Radiation Protection Subcommittee today.

Professor Riklund is the Past President of the Swedish Society of Radiology and the Swedish Society of Nuclear Medicine. She is the chairperson of the Centre for Medical Image Science and Visualisation at Linköping University, as well as the Centre for Functional Brain Imaging and the Wallenberg Centre for Molecular Medicine at Umeå University.

She gave the Marie Curie Honorary Lecture at ECR 2018, has received honorary membership from the French Society of Radiology and the RSNA, and was awarded the Alfred Breit Price by the German Radiology Society in 2019.
In recognition of his role in advancing the field of medical imaging, Doctor Bernd Montag from Erlangen, Germany, will present the Plenary Lecture entitled ‘Digitalisation: the journey to a more human healthcare’ at ECR 2020.

Bernd Montag, PhD, is CEO of Siemens Healthineers in Erlangen, Germany. He was born in Munich in 1969 and completed his studies in physics at the Friedrich-Alexander-University, Erlangen-Nuremberg, where he earned a PhD in theoretical multi-particle physics in 1995.

Dr. Montag started working as a scientific assistant at the institute of theoretical physics at the University of Erlangen-Nuremberg in Erlangen in 1993.

Two years later, he joined Siemens, where he held positions in corporate quality management and sales in the hearing aid division. In 1999 he moved to imaging systems, where he served as a product manager for computed tomography and as the head of marketing for magnetic resonance business. In 2004 he assumed overall responsibility for computed tomography and in 2008 he was named president of the Imaging & Therapy Division, which combined the overall business of diagnostic imaging and image-guided therapies.

In February 2015 he was named CEO of Siemens Healthcare. As of March 2018, the company is listed on the Frankfurt Stock Exchange as Siemens Healthineers AG (SHEL).

Siemens Healthineers has already received a number of awards for the quality and innovation of its products and solutions.

In recognition of his pioneering work in demonstrating the function and evolution of the human brain, Professor Nenad Šestan from New Haven, Connecticut, USA, has been invited to present the Plenary Lecture entitled ‘Building the human brain: molecular logic of neural circuit formation’ at ECR 2020.

Nenad Šestan is the Harvey and Kate Cushing Professor of Neuroscience, Genetics, Psychiatry and Comparative Medicine at Yale University in New Haven, Connecticut, USA. He is also Executive Director of the Yale Genome Editing Center.

He received his medical degree from Zagreb University School of Medicine in Croatia in 1995 and went on to obtain his PhD and postdoc in neurobiology at Yale University. He started working as assistant professor at the department of neurobiology of Yale University in 2002 and has remained on the faculty ever since.

Professor Šestan’s research focuses on understanding the molecular and cellular basis of how neurons acquire distinct identities and form proper connections in the cerebral cortex, the outside part of the mammalian brain that processes senses, commands motor activity, and helps humans perform higher-order cognitive functions like language. He also studies how these complex processes were modified during human evolution and may become compromised in neuropsychiatric disorders.

Most recently, his laboratory developed technology for restoring brain circulation and cell function following prolonged circulatory arrest and global anoxia.

Professor Šestan has authored or co-authored more than 90 publications on these topics. He has been honoured with many awards, most recently the Constance Lieber Prize in 2019. He also holds corresponding membership of the Croatian Academy of Sciences and Arts (HAZU), and has received the 2014 BRAIN Initiative Award from the National Institutes of Health, the 2012 NARSAD Distinguished Investigator Grant from the Brain & Behavior Research Foundation and the 2012 Krieg Cortical Discoverer Award from the Cajal Club.
RALPH WEISSLEDER
Boston, MA/USA

PLENARY LECTURER

In recognition of his role in advancing molecular and cellular imaging technologies, Professor Ralph Weissleder from Boston, Massachusetts, USA, will present the Plenary Lecture entitled ‘Imaging at a different scale: the wild lives of our cells’ at ECR 2020.

Ralph Weissleder is the James Thrall Professor of Radiology and Professor of Systems Biology at Harvard Medical School (HMS), director of the Center for Systems Biology and attending clinician in interventional radiology at Massachusetts General Hospital (MGH). He is also a member of the Department of Systems Biology at HMS and the Dana Farber Harvard Cancer Center.

Professor Weissleder graduated at the University of Heidelberg, Germany, and completed his radiology residency training at MGH in 1991. He has been on the Harvard faculty ever since.

Professor Weissleder is best known for his vision of and research in molecular imaging. He created one of the first centres for molecular imaging research at MGH back in 1994. Professor Weissleder’s more recent research is focused on creating new technologies for the development of medicines and diagnostics, including approaches at the interface of chemistry, biology and engineering. His world-renowned expertise, combined with his passion for innovative solutions have led to the development of new tools for the early detection of cancer, bacterial analyses and new miniaturised sensing technologies. Using these tools, his goals are to obtain quantitative and systems-wide global measurements, to perform dynamic serial measurements, to integrate multiple and various data sets into models, and to enable earlier, faster and simpler diagnostics. His recent work has been focused on translational aspects such as cancer phenotyping in single cells, large-scale analysis of new sensing approaches and providing diagnostic solutions for global health. Several of Professor Weissleder’s research developments are in clinical trials or are being commercialised.

He has published more than 930 publications in peer-reviewed journals and authored several textbooks. He has an h-index of 185 and ranks among the top one hundred scientists in the world, according to international rankings.

Professor Weissleder is a member of the US National Academy of Medicine, the American Academy of Arts and Sciences, the National Academy of Inventors and the German Academy of Sciences (Leopoldina). His work has been honoured with numerous awards including the J. Taylor International Prize in Medicine, the Millennium Pharmaceuticals Innovator Award, the AUR Memorial Award, the ARRS President’s Award, the Society for Molecular Imaging Lifetime Achievement Award, the 2006 Academy of Molecular Imaging Distinguished Basic Scientist Award and the 2008 RSNA Outstanding Researcher Award. He is also an ESR Gold Medallist.
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................................................................. Wiro J. Niessen; Rotterdam/NL
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How to Improve Your Expertise in Cardiothoracic Imaging ................................................................. Stefan Wirth; Munich/DE

CASES OF THE DAY ................................................................. Marianna Gardarsdottir; Reykjavík/IS

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<th>Chairperson:</th>
<th>Thomas H. Helbich; Vienna/AT</th>
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### Interventional Radiology

The ESR would like to thank CIRSE for their cooperation on this subcommittee.

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### Genitourinary

The ESR would like to thank ESUR for their cooperation on this subcommittee.

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<td>Joan C. Vilanova; Girona/ES</td>
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### Head and Neck

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<th>Timothy Beale; London/UK</th>
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<td>Darka Hadnadjev Simonij; Novi Sad/RS</td>
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<td>Burce Ozgen Mocan; Ankara/TR</td>
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### Musculoskeletal

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<th>Chairperson:</th>
<th>Anagha P. Parkar; Bergen/NO</th>
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<td>Miraude Adriaensen; Heerlen/NL</td>
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<td>Guillaume Bierry; Strasbourg/FR</td>
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<td>James Teh; Oxford/UK</td>
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<td>Maria Tzalonikou; Athens/GR</td>
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<td>Simone Waldt; Essen/DE</td>
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### Neuro

The ESR would like to thank ESNR for their cooperation on this subcommittee.

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<th>Philippe Demaille; Leuven/BE</th>
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<td>Chrysa Tziakouri-Shiakalli; Nicosia/CY</td>
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<td>Horst Urbach; Freiburg/DE</td>
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<td>Meike Vernoij; Rotterdam/NL</td>
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#### E3 – Rising Stars Programme

<table>
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<tr>
<th>Sessions Type</th>
<th>Coordinator(s)</th>
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<tr>
<td>Basic Sessions</td>
<td>Dragos Negru; Iasi/RO</td>
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<tr>
<td>Basic Sessions jointly organised with the ESOR</td>
<td>Valérie Vilgrain; Clichy/FR</td>
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<th>Sessions Type</th>
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<td>Joana Santos; Coimbra/PT</td>
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#### E3 – European Diploma Prep Sessions

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<td>Raffaella Basilico; Chieti/IT</td>
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#### E3 – The Beauty of Basic Knowledge

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<tr>
<td>Breast</td>
<td>Karen Kinkel; Chêne-Bougeries/FR</td>
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<td>Pancreas</td>
<td>Ricardo Manfredi; Rome/IT</td>
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#### E3 – Advanced Courses

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<td>Interactive Teaching Sessions for Young and not so Young Radiologists</td>
<td>Eva Castañer; Sabadell/ES</td>
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<td>Artificial Intelligence</td>
<td>Wiro J. Niessen; Rotterdam/NL</td>
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<td>Andrea G. Rockall; London/UK</td>
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<td>How to Improve Your Expertise in Cardiopulmonary Imaging</td>
<td>Igor E. Tyurin; Moscow/ RU</td>
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<td>Hot Topics in Emergency Radiology</td>
<td>Stefan Wirth; Munich/DE</td>
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#### E3 – Master Classes

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<td>Hybrid, Molecular and Translational Imaging (ESHIMT)</td>
<td>Thomas H. Helbich; Vienna/AT</td>
</tr>
<tr>
<td>Genitourinary (ESUR)</td>
<td>Gordana Ivanac; Zagreb/HR</td>
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<tr>
<td>Head and Neck (EHNMR)</td>
<td>Timothy Beale; London/UK</td>
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<tr>
<td>Musculoskeletal (ESSR)</td>
<td>Anagha P. Parkar; Bergen/NO</td>
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<tr>
<td>Neuro (ESNR)</td>
<td>Philippe Demaerele; Leuven/BE</td>
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<tr>
<td>Paediatric (ESPR)</td>
<td>Stéphanie Franchi-Abella; Le Kremlin-Bicêtre/FR</td>
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<tr>
<td>Vascular (CIRSE)</td>
<td>Florian Wolf; Vienna/AT</td>
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<tr>
<td>Oncologic Imaging (ESOI)</td>
<td>Luis Martí-Bonmati; Valencia/ES</td>
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<tr>
<td>Emergency Imaging (ESER)</td>
<td>Katarzyna Katulska; Poznan/PL</td>
</tr>
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### CHILDREN IN FOCUS

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<thead>
<tr>
<th>Coordinator(s)</th>
<th>Location</th>
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<tbody>
<tr>
<td>Lil-Sofie Ording Müller; Oslo/NO</td>
<td>Catherine Owens; Doha/QA</td>
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### TRANSATLANTIC COURSE OF ESR AND RSNA

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<tbody>
<tr>
<td>Jean-Pierre Pruvo; Lille/FR</td>
<td>Raman Uher; Oxford/UK</td>
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<td>Achala Vagal; Cincinnati, OH/US</td>
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### PROS AND CONS SESSION

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<tr>
<th>Topic</th>
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<tbody>
<tr>
<td>Breast cancer: to screen or not to screen?</td>
<td>Fiona J. Gilbert; Cambridge/UK</td>
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### HANDS-ON WORKSHOPS

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<tr>
<th>Workshop Type</th>
<th>Coordinator(s)</th>
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<tbody>
<tr>
<td>MRI of the Prostate</td>
<td>Patrick Asbach; Berlin/DE</td>
<td>Bernd Hamm; Berlin/DE</td>
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<tr>
<td>MRI of the Pelvic Floor</td>
<td>Rania Farouk El Sayed; Cairo/EG</td>
<td>Vito Cantian; Rome/IT</td>
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<tr>
<td>Ultrasound</td>
<td>Liat Appelbaum; Jerusalem/IL</td>
<td>Caroline Ewertsen; Copenhagen/DK</td>
</tr>
<tr>
<td>Hot Topics in Emergency Radiology</td>
<td>Stefan Wirth; Munich/DE</td>
<td>Adrian K.P. Lim; London/UK</td>
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</table>

### CLINICAL TRIALS IN RADIOLOGY

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<tr>
<td>Marc Dewey; Berlin/DE</td>
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### MY THESIS IN 3 MINUTES

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<td>Marc Dewey; Berlin/DE</td>
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AI EXHIBITION AND THEATRE AT ECR 2020

After its hugely popular debut, the AIX is back and nearly doubled in size. Come and explore how machine learning, deep learning and big data are reshaping medical imaging to find out what the future of radiology holds.

Meet the companies and innovators at the forefront of the field and take in industry pitches, keynotes and panel discussions in our transformed AIX Theatre.

Expo Hall X1
March 11-14

AIX
10:00-17:00

AIX Theatre
11:00-16:00

For more information visit www.myESR.org/ai
<table>
<thead>
<tr>
<th>Time</th>
<th>Room X</th>
<th>ESR/ESTRO</th>
<th>Joint Session of the ESR and ESTRO: Radiology and radiotherapy in liver tumours</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30-10:00</td>
<td>Descartes (Room D3)</td>
<td>SF 1a</td>
<td>Evaluating oncologic treatment response in clinical practice and trials</td>
</tr>
<tr>
<td>08:30-10:00</td>
<td>Tech Gate Auditorium</td>
<td>SF 1b</td>
<td>Special Focus Session: CEUS in children</td>
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<tr>
<td>10:10-12:00</td>
<td>Da Vinci (Room D1)</td>
<td>SF 2b</td>
<td>My three most dreaded head and neck requests</td>
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<tr>
<td>10:10-12:00</td>
<td>Descartes (Room D3)</td>
<td>SF 2c</td>
<td>E-2018 Advanced Courses: Hot Topics in Emergency Radiology</td>
</tr>
<tr>
<td>14:00-15:00</td>
<td>Coffee &amp; Talk 2</td>
<td>C 10</td>
<td>Quality and safety in paediatric imaging</td>
</tr>
<tr>
<td>14:00-15:00</td>
<td>Room Y</td>
<td>CTIR 3</td>
<td>Clinical Trials in Radiology</td>
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<tr>
<td>14:00-15:00</td>
<td>Coffee &amp; Talk 2</td>
<td>C 34</td>
<td>Coffee &amp; Talk (open forum) Session: Oncologic and the World Health Organisation (WHO)</td>
</tr>
<tr>
<td>14:00-15:30</td>
<td>Room M 2</td>
<td>E 218</td>
<td>Growing radiography research</td>
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<tr>
<td>14:00-15:30</td>
<td>Room M 5</td>
<td>E 218</td>
<td>E-2: Advanced Courses: Artificial Intelligence and translations to clinical practice</td>
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<tr>
<td>16:00-17:30</td>
<td>Room N</td>
<td>EU 4a</td>
<td>EuroSafe Imaging Session</td>
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<tr>
<td>16:00-17:30</td>
<td>Room E</td>
<td>PS 427</td>
<td>Breast cancer: to screen or not to screen?</td>
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<tr>
<td>16:00-17:30</td>
<td>Tech Gate Auditorium</td>
<td>SF 4</td>
<td>Interventional radiology in oncology</td>
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<tr>
<td>17:45-19:45</td>
<td>Forum (Room A)</td>
<td>ECR 2020 Grand Opening</td>
<td>Prof. Brielke officially opens ECR 2020 / Award presentation ESR Honorary Membership and Gold Medals / Dance performances &amp; concert</td>
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TODAY’S HIGHLIGHTS

Thursday, March 12

Room C  RC 504  Refresher Courses: Chest
14:00-15:30

Room O  ESR/EFLM  Joint Session of the ESR and EFLM
14:00-15:30

Room X  PC 1  Professional Challenges Session
17:45-18:45

Room M1  ESR/UEMS  Visibility of imaging professionals in the EU
18:00-19:00

Room C  14:00-15:30

Forum (Room A)  PL 1  Plenary Lecture by Ralph Weissleder; Boston, MA: US Imaging at a different scale: the wild lives of our cells
10:30-11:00

Room C  14:00-15:30

Da Vinci (Room D1)  SF 7b  How radiologists can help the infertile couple
14:00-15:30

Coffee & Talk 3  C 24  Coffee & Talk (open forum) Session
14:00-15:30

Darwin (Room D2)  SF 7c  BasoCardiac for non-cardiac radiologists
14:00-15:30

Room G  MS 7a  Multidisciplinary Session
14:00-15:30

Room K  MS 7b  Multidisciplinary Session
14:00-15:30

Room O  IF 8  Children in Focus
16.00-17.30

Room O  Meetings 8a  Radiology in Israel: technology and professionalism
16.15-17.45

Darwin (Room D2)  Meetings 8b  Local Focus: Radiology profession performance and future challenges in Japan
16.15-17.45

Descartes (Room D3)  PC 8  Professional Challenges Session
16.15-17.30

Room C  TT  Trending Topic Session
17.30-18.45
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<thead>
<tr>
<th>Room/Time</th>
<th>Forum 2nd Level (ACV)</th>
<th>B 2nd Level (ACV)</th>
<th>C 2nd Level (ACV)</th>
<th>X 2nd Level (ACV)</th>
<th>Z 2nd Level (ACV)</th>
<th>Coffee &amp; Talk 2nd Level (ACV)</th>
<th>Studio 2020 2nd Level (ACV)</th>
<th>Coffee &amp; Talk 2 2nd Level (ACV)</th>
<th>C 15 2nd Level (ACV)</th>
<th>VeL Stage 1 2nd Level (ACV)</th>
<th>VeL Stage 2 2nd Level (ACV)</th>
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<tr>
<td>08:00-10:00</td>
<td>SF 9b</td>
<td>Special Focus Session</td>
<td>Imaging of migrant and refugee children</td>
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<td>SF 9c</td>
<td>Special Focus Session</td>
<td>Top my tips for breast imaging</td>
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FRIDAY, MARCH 13

Cuba 3.0  |  09:00-10:00  |  What would you tell your cancer patients? Challenges of the Art of Communication and Interaction*  
Cuba 3.0  |  10:00-11:00  |  AI: The Future of Computer-Aided Detection and Reporting in Cardiac Imaging  
Cuba 3.0  |  11:00-12:00  |  Imaging the Future: Lessons from the Medical AI Revolution*  
Cuba 3.0  |  12:00-13:00  |  Immunotherapy: what the radiologist needs to know*  
Cuba 3.0  |  13:00-14:00  |  State of the Art Symposium, Lower Level 1  

Programme Overviews key

Programme Overviews

Technical Exhibition: EXPO Hall (First Level): 10:00-17:00
Technical Exhibition: EXPO Halls and EXPO Foyer D: 10:00-17:00

www.myESR.org  Scientific Programme  |  ECR 2020  |  www.myESR.org
## TODAY’S HIGHLIGHTS

### Sunday, March 15

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<th>Forums</th>
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<th>C 2nd Level (ACV)</th>
<th>X 2nd Level (ACV)</th>
<th>Z 2nd Level (ACV)</th>
<th>Coffee &amp; Talk 1 2nd Level (ACV)</th>
<th>Studio 2020 1st Level (ACV)</th>
<th>Coffee &amp; Talk 2 1st Level (ACV)</th>
<th>VeE Stage 1 1st Level (ACV)</th>
<th>VeE Stage 2 1st Level (ACV)</th>
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<td>08:30-09:00</td>
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<td>VeE 033</td>
<td>VeE 068</td>
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<tr>
<td>08:30-09:30</td>
<td>Room N</td>
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<td>08:30-09:30 Breast cancer treatment monitoring Research: Presentation Sessions: Cardiac</td>
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<td>Voice of EPOS</td>
<td>Vascular Imaging</td>
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<tr>
<td>08:30-10:00</td>
<td>Room M 4</td>
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<td>10:00-10:30 Cardiac imaging for dose optimisation</td>
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<td>Voice of EPOS</td>
<td>Head and Neck</td>
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<tr>
<td>10:30-12:00</td>
<td>Room E</td>
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<td>10:30-11:10 Imaging of the biliary system Refresher Courses: Endoscopy &amp; Gastrointestinal</td>
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<td>Voice of EPOS</td>
<td>Vascular Imaging</td>
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<tr>
<td>10:30-12:00</td>
<td>Room E</td>
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<td>09:00-10:00 Imaging of the liver more than thyroid Refresher Presentation Sessions: Head and Neck</td>
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<td>Voice of EPOS</td>
<td>Head and Neck</td>
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<tr>
<td>12:30-14:00</td>
<td>Room A</td>
<td>GF</td>
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<td>GF 12:30-13:00 Children in Focus</td>
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<td>Voice of EPOS</td>
<td>Vascular Imaging</td>
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<tr>
<td>08:30-10:00</td>
<td>Room G</td>
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<td>08:30-10:00 Challenges facing the radiology workforce</td>
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<td>Voice of EPOS</td>
<td>Breast Imaging</td>
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</tbody>
</table>

**Programme Overviews**

ECR Online & EPOS Lounge / EPOS™ – Scientific Exhibition: 08:00-14:00

www.myESR.org

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**TODAY’S HIGHLIGHTS**

**Sunday, March 15**

- **Da Vinci (Room D1)**
  - PC 17: Professional Challenges Session
    - Challenges facing the radiology workforce

- **Room G**
  - NH 17: New Horizons Session
    - MRI of the future

- **Room M 4**
  - SF 17b: Special Focus Session
    - When stroke happens in children

- **Room N**
  - EU 18: EuroSafe Imaging Session
    - Artificial intelligence for dose optimisation

- **Room E**
  - CB: E3 - Rising Stars Programme
    - Case-Based Diagnosis Training
    - Case-Based Diagnosis Training

- **Room E**
  - ESR/EORTC: Advanced imaging for stratifying treatment in oligometastatic prostate cancer

- **Coffee & Talk 3**
  - C 33: Coffee & Talk (open forum) Session
    - Guidance for IT in radiology: how radiologist can benefit from DIAM

- **Forum (Room A)**
  - GF: ECR Grand Finale
    - Inspiring talks by three young speakers / Musical performances

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**SUNDAY, MARCH 15**

**ECR 2020** | **Scientific Programme**
### Scientific Programme | ECR 2020

SUNDAY, MARCH 15

<table>
<thead>
<tr>
<th>Room/Time</th>
<th>G Lower Level (ACV)</th>
<th>K Lower Level (ACV)</th>
<th>M1 Entrance Level (ACV)</th>
<th>M2 1st Level (M Building)</th>
<th>M3 2nd Level (M Building)</th>
<th>M4 3rd Level (M Building)</th>
<th>M5 4th Level (M Building)</th>
<th>Tech Gate Theatres Lower Level (Exp 10)</th>
<th>AIX Theatre Lower Level (Gep 9A)</th>
<th>Cube 3.0 Mall Level 1 (ECR City)</th>
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<tbody>
<tr>
<td>08:30-</td>
<td>NH 17 MRI of the future New Horizons Session</td>
<td>E3 1723 Gynaecology and obstetrics E4 - European Diploma Prep Sessions</td>
<td>BPS 1704 Gynaecology and obstetrics E4 - European Diploma Prep Sessions: Mammography</td>
<td>E3 1744 Upper extremities and facial bones: Research Presentation Sessions: Musculoskeletal Scenarios</td>
<td>E3 1745 Post-treatment emergencies in oncology patients E3 - ESR Master Class</td>
<td>E3 176 Breast imaging as a safety tool E3 - Rising Stars Basic Sessions</td>
<td>E3 1726 Early detection of prostate cancer E3 - Advanced Courses: First Steps in HUD</td>
<td>E3 1705 Cardiac imaging in structural heart disease E3 - Behinder Courses: Cardiac</td>
<td>E3 1715 E3 - Advanced Courses: Hot Topics in NDR</td>
<td>E3 1703 Deep learning based screening, image analysis, and quality assurance E3 - Advanced Courses: Hot Topics in NDR</td>
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**Programme Overviews key**

- Educational Programme
- Scientific Programme
- Interactive Sessions
- Hands-on Workshops
- Voice of EPOS Sessions

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**Voice of EPOS Sessions**

- **EPOS Sessions**
- **Case-Based Learning**
  - EPOS 104 Case-Based Learning - Female imaging (60 minutes)
  - EPOS 104 Case-Based Learning - Male imaging (60 minutes)
- **Hands-on Workshops**
  - EPOS 105 Hands-on Workshops - Musculoskeletal (60 minutes)
  - EPOS 105 Hands-on Workshops - Vascular (60 minutes)
- **Interactive Sessions**
  - EPOS 106 Interactive Sessions - New Horizons (60 minutes)
- **Scientific Programme**
  - EPOS 101 Scientific Programme - ECR 2020 (60 minutes)
ECR 2020 TRENDING TOPIC SESSION

Novel coronavirus outbreak: experience and challenges in imaging and beyond
March 12, 2020 | 17:45 CET | ACV Room C

The session will feature a multidisciplinary team of experts from Wuhan, Shanghai, Frankfurt, Munich, Paris and Rome, who have first-hand experience in imaging and treating patients infected with COVID-19, and who will share their experience and expertise with the audience.

As this epidemic affects the whole globe, the live stream via ESR Connect is free of charge.

connect.myESR.org

Register for the free live stream here:
**EDUCATIONAL AND SCIENTIFIC PROGRAMME**

Please note that sessions are marked with a logo to indicate their classification according to the European Training Curriculum.

- **LEVEL I** First three years of training
- **LEVEL II** Fourth and fifth years of training (general radiologist standard)
- **LEVEL III** Subspecialty training standard

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<td>Special Focus Sessions</td>
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<td>Professional Challenges Sessions</td>
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<td>Transatlantic Course</td>
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<td>European Excellence in Education (E³)</td>
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MY THESIS IN 3 MINUTES

Join 235 daring colleagues presenting their scientific theses in just three minutes!

ROOM Y (ENTRANCE LEVEL)

Topics:
Abdominal and Gastrointestinal
Artificial Intelligence and Machine Learning
Breast
Cardiac
Genitourinary
Head and Neck
Musculoskeletal
Neuro
Oncologic Imaging
Radiographers
Vascular

Details at myESR.org/programme
Track: My Thesis in 3 Minutes
**ESR MEETS SESSIONS**

The ‘ESR Meets’ Sessions are an opportunity for the radiological community to gain a greater insight into the innovations and perspectives of other nations, while also strengthening the bonds between the ESR and its guest societies. This year, the ESR is proud to host the countries of Canada, Croatia, Slovakia, Slovenia, and Israel.

**EFRS MEETS SESSION**

The ‘EFRS Meets’ Sessions are organised by the European Federation of Radiographer Societies (EFRS) and provide a platform to introduce and highlight the accomplishments of their diverse member societies in the world of radiography. This year will see the introduction of Slovenia and the Netherlands, with the sessions illustrating the excellent work these nations are producing, as well as offering a small sample of their unique cultures.

**ISRRT MEETS SESSION**

The ‘ISRRT Meets’ Sessions, hosted by the International Society of Radiographers and Radiological Technologists (ISRRT), demonstrate the vital role that radiographers play in the medical imaging profession. This is accomplished through the exploration of the practice, research, and unique challenges faced by radiographers from a selection of countries. This year features experts from Canada and Japan.

For all sessions, places are allocated on a first-come, first-served basis.
ESR/EFRS/ISRRT MEETS SESSIONS

Thursday, March 12, 08:30–10:00, Darwin (Room D2)

ISRRT meets Japan

Meets 5  Radiography profession performance and future challenges in Japan

Presiding: Hakon H. Hjemly; Oslo/NO
Donna Newman; Fargo, ND/US

- Chairpersons’ introduction
  Hakon H. Hjemly; Oslo/NO  [Meets 5-1]
  Donna Newman; Fargo, ND/US  [Meets 5-2]

- Education system and career structure of radiological technologists in Japan  [Meets 5-3]
  Naoki Kodama; Niigata/JP

- Latest optimal CT imaging technology and radiation dose reduction  [Meets 5-4]
  Takanori Masuda; Hiroshima/JP

- Radiation therapy in Japan: current status and recent topics of radiation therapy in Japan  [Meets 5-5]
  Hajime Monzen; Osaka/JP

- The role of radiological technologists in emergency medicine: a contribution of ultrasound  [Meets 5-6]
  Akihito Kasuya; Kariya/JP

- Panel discussion: How will you describe the future opportunities and challenges for radiographers in Japan? Do you think the emerging technology will change the profession, and in what way?  [Meets 5-7]

Thursday, March 12, 16:00–17:30, Room F1

ESR meets Israel

Meets 8a  Radiology in Israel: technology and professionalism

Presiding: Boris Brkljačić; Zagreb/HR
Jacob Sosna; Jerusalem/IL

- Welcome from the ESR President  [Meets 8a-1]
  Boris Brkljačić; Zagreb/HR

- Introduction  [Meets 8a-2]
  Jacob Sosna; Jerusalem/IL

- Will artificial intelligence (AI) replace the radiologist?  [Meets 8a-3]
  Eli Konen; Ramat Gan/IL

- Interlude 1: Israel: a rich history and bright future  [Meets 8a-4]

- Doctor-patient communication in radiology  [Meets 8a-5]
  Dorith Shaham; Jerusalem/IL

- Interlude 2: Musical piece  [Meets 8a-6]

- Imaging technology development: the Israeli experience  [Meets 8a-7]
  Jacob Sosna; Jerusalem/IL

- Panel discussion: The future of radiology: technology- or human-centred?  [Meets 8a-8]

Thursday, March 12, 16:00–17:30, Darwin (Room D2)

ISRRT meets Canada

Meets 8b  Radiography profession performance and future challenges in Canada

Presiding: Efthimios Agadakos; Athens/GR
Dimitris Katsifarakis; Athens/GR

- Chairpersons’ introduction
  Efthimios Agadakos; Athens/GR  [Meets 8b-1]
  Dimitris Katsifarakis; Athens/GR  [Meets 8b-2]

- The regulatory situation in Canada for radiographers and radiological technologists  [Meets 8b-3]
  Alain Cromp; Ottawa, ON/CA

- The current and evolving state of medical radiation technology (MRT) education in Canada  [Meets 8b-4]
  Carrie Bru; Ottawa, ON/CA

- Artificial intelligence (AI) and the medical radiation profession: how our advocacy must inform future practice  [Meets 8b-5]
  Andrew Murphy; Vancouver, BC/CA

- Quality, safety and peer review: a Canadian experience  [Meets 8b-6]
  Steve DeColle; Edmonton, AB/CA

- Panel discussion  [Meets 8b-7]

Friday, March 13, 08:30–10:00, Room F1

ESR meets Croatia, Slovakia and Slovenia

Meets 9  Interventional neuroradiology, cardiac MRI and EVAR: our experience

Presiding: Boris Brkljačić; Zagreb/HR
Damir Miletić; Rijeka/HR
Viera Lehotská; Bratislava/SK
Maja Marolt Music; Ljubljana/SI

- Welcome from the ESR President  [Meets 9-1]
  Boris Brkljačić; Zagreb/HR

- Introduction
  Damir Miletić; Rijeka/HR  [Meets 9-2]
  Viera Lehotská; Bratislava/SK  [Meets 9-3]
  Maja Marolt Music; Ljubljana/SI  [Meets 9-4]

- Interventional neuroradiology: from coil to clot  [Meets 9-5]
  David Ozretić; Zagreb/HR

- Interlude: Promotional video about Croatia  [Meets 9-6]
  Damir Miletić; Rijeka/HR

- Cardiac MRI and beyond  [Meets 9-7]
  Zuzana Berecova; Bratislava/SK

- Interlude: Promotional video about Slovakia  [Meets 9-8]
  Viera Lehotská; Bratislava/SK

- EVAR: two decades of experience in Slovenia  [Meets 9-9]
  Vladka Salapura; Ljubljana/SI

- Interlude: Promotional video about Slovenia  [Meets 9-10]
  Maja Marolt Music; Ljubljana/SI

- Panel discussion: What is the impact of cardiac MRI, neurovascular and aortic interventions on turf battles in Croatia, Slovakia and Slovenia?  [Meets 9-11]
### March 13
**Friday, March 13, 16:00–17:30, Darwin (Room D2)**

**EFRS meets Slovenia**

**Meets 12** A guided tour of Slovenia through the modalities

**Presiding:** Jonathan McNulty; Dublin/IE  
Uros Gačnik; Ljubljana/SI

» **Session introduction**  [Meets 12-1]  
  Jonathan McNulty; Dublin/IE

» **Introduction: Radiographers in Slovenia**  [Meets 12-2]  
  Uros Gačnik; Ljubljana/SI

» **The radiographers’ role in hybrid imaging**  [Meets 12-3]  
  Sebastjan Rep; Ljubljana/SI

» **The effective use of negative contrast agents in magnetic resonance cholangiopancreatography (MRCP)**  [Meets 12-4]  
  Andrej Breznik; Celje/SI

» **Interlude: I feel Slovenia**  [Meets 12-5]

» **Protocol designing and optimisation in cardiac CT**  [Meets 12-6]  
  Jure Misič; Ljubljana/SI

» **Quality assurance in mammography: evaluation of radiographs**  [Meets 12-7]  
  Erna Alukic; Ljubljana/SI

» **Panel discussion**  [Meets 12-8]

### March 14
**Saturday, March 14, 08:30–10:00, Darwin (Room D2)**

**EFRS meets the Netherlands**

**Meets 13** Safety in the Netherlands

**Presiding:** Jonathan McNulty; Dublin/IE  
Sija Geers-van Gemeren; Utrecht/NL

» **Session introduction**  [Meets 13-1]  
  Jonathan McNulty; Dublin/IE

» **Introduction: Radiographers in the Netherlands**  [Meets 13-2]  
  Sija Geers-van Gemeren; Utrecht/NL

» **Hybrid imaging: the merge between radiology and nuclear medicine**  [Meets 13-3]  
  Peter Liedorp; Raamsdonkveer/NL

» **Gonad shielding guidelines for radiographers**  [Meets 13-4]  
  Alie Vegter; Stadskanaal/NL

» **Interlude: Feel the Netherlands**  [Meets 13-5]

» **REVIVE: Radiology during pregnancy: translating risk factor publications and international guidelines into practice when communicating with pregnant patients**  [Meets 13-6]  
  Colinda Vroonland; Haarlem/NL

» **Electromagnetic field risk assessment and evaluation in MRI**  [Meets 13-7]  
  Jeannette Meedendorp; Utrecht/NL

» **Panel discussion**  [Meets 13-8]

**This session is part of the EuroSafe Imaging campaign.**

### March 14
**Saturday, March 14, 14:00–15:30, Room F1**

**EFRS meets Canada**

**Meets 15** Tales from the Canadian Frontier

**Presiding:** Boris Briklačić; Zagreb/HR  
Michael Barry; Ottawa, ON/CA

» **Welcome from the ESR President**  [Meets 15-1]  
  Boris Briklačić; Zagreb/HR

» **Introduction: Fun facts about Canada**  [Meets 15-2]  
  Michael Barry; Ottawa, ON/CA

» **Overview of radiology in Canada**  [Meets 15-3]  
  Michael Barry; Ottawa, ON/CA

» **Artificial intelligence: a global phenomenon changing the way radiologists practice**  [Meets 15-4]  
  Jaron Chong; Montreal, QC/CA

» **Hot topic - Physician burnout: a Canadian perspective**  [Meets 15-5]  
  Michael Patlas; Hamilton, ON/CA

» **Canadian Interlude with Embassy**  [Meets 15-6]  
  Stéphane Charbonneau; Vienna/AT

» **Transcontinental thematic analysis of gender role in medical schools leadership: a message to academic radiology and hospital administration**  [Meets 15-7]  
  Waleed Abdellatif; Vancouver, BC/CA

» **Can CTA differentiate free-floating thrombus in the internal carotid artery from atherosclerotic plaque in patients evaluated for stroke or transient ischaemic attack? A Canadian multi-centre study**  [Meets 15-8]  
  Paulo Puac Polanco; Ottawa, ON/CA

» **Traumatic bowel injuries increased detectability with dual-energy CT virtual monoenergetic with colour-coded iodine overlay imaging**  [Meets 15-9]  
  Francesco Macri; Vancouver, BC/CA

» **The history of Medicare in Canada**  [Meets 15-10]  
  Emil Lee; Langley, BC/CA

» **Questions**  [Meets 15-11]
COFFEE AND TALK SESSIONS

Don’t miss this popular informal session format, featuring short lectures and discussions, taking place in various stylish lounges:

**Room Coffee & Talk 1** (2nd level, Foyer B, within the ESOR Lounge)
**Room Coffee & Talk 2** (1st level, Foyer N, next to the EuroSafe Imaging Lounge)
**Room Coffee & Talk 3** (entrance level, Foyer E)

**Topics:**
- Artificial intelligence
- Audit
- ESR iGuide
- EuroSafe Imaging
- Professional Issues & Management tips
- Publication tips
- Radiation protection
- Research
- Undergraduate radiology teaching

Details at [myESR.org/programme](http://myESR.org/programme)
Track: Coffee & Talk (open forum) Session
In Memoriam of Professor Helen M.L. Carty

The European Congress of Radiology will be bringing the next ‘in Focus’ programme, Children in Focus, to ECR 2020. The programme will explore a range of healthcare and social issues affecting children and young people.

The sessions will feature a wide variety of speakers from across the spectrum of healthcare industries, both patients and professionals, sharing inspirational stories from their own personal experiences, offering advice, and asking the tough questions about children and the care they receive around the world. Topics will include bringing healthcare to children in low-resource areas, using imaging in cases of child abuse, and discussing hotly debated issues such as consent, data use, and medicolegal dilemmas in paediatric medicine.

Children in Focus is being coordinated by Dr. Lil-Sofie Ording Müller, Consultant Paediatric Radiologist at Oslo University Hospital, Oslo, and Dr. Catherine Owens, Consultant Paediatric Radiologist at Great Ormond Street Hospital, London.

Children in Focus is organised by the European Society of Radiology (ESR) in cooperation with the European Society of Paediatric Radiology (ESPR).

Places are allocated on a first-come, first-served basis.
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<th>Date</th>
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<td><strong>12 March</strong></td>
<td><strong>Thursday, March 12, 14:00–15:30</strong></td>
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<td><strong>The patient journey:</strong> from foetus to adulthood</td>
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<td>» Chairperson’s introduction [IF 7-1] Catherine Owens; Doha/QA</td>
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<td>» In memoriam Prof. Helen M.L. Carty [IF 7-2] Austin Carty; Liverpool/UK</td>
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<td>» From Women in Focus to Children in Focus [IF 7-3] Hedvig Hricak; New York, NY/US</td>
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<td>» Inspiration behind Children in Focus [IF 7-4] Boris Brkljačić; Zagreb/HR</td>
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<td>» The foetus: from imagination to imaging [IF 7-5] Lorenzo E. Derchi; Genoa/IT</td>
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<td>» The impact of advanced medical intervention on childhood malignancy: where we are now and why we need to be here [IF 7-6] Paul Veys; London/UK</td>
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<td>» My personal journey through childhood cancer in pictures: a ten year marathon [IF 7-7] Oscar Parry; London/UK / Phil Parry; London/UK [IF 7-8]</td>
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<td>» Panel discussion: Where are we now and what has really changed? [IF 7-9]</td>
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<th><strong>12 March</strong></th>
<th><strong>Thursday, March 12, 16:00–17:30</strong></th>
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<th><strong>Medicolegal dilemmas in paediatric medicine</strong></th>
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<td>» Chairperson’s introduction [IF 8-1] Amaka C. Offiah; Sheffield/UK</td>
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<td>» Medical evidence from a legal perspective [IF 8-3] Wilma Duijst; Maastricht/NL</td>
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<td>» The EU perspective: is child abuse a homogenous ‘disease’ across Europe? Cultural aspects [IF 8-4] Maria Raissaki; Iraklion/GR</td>
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<td>» Child sexual abuse in India among children from marginalised backgrounds [IF 8-5] Reena Mary George; Vienna/AT</td>
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<td>» Panel discussion: How can we secure credible evidence regarding child abuse in order to protect both children and their carers? [IF 8-6]</td>
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<tr>
<th><strong>13 March</strong></th>
<th><strong>Friday, March 13, 14:00–15:30</strong></th>
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<th><strong>Against all odds: bringing health care to children in low-resource areas</strong></th>
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<td>» Chairperson’s introduction [IF 11-1] Karen Rosendahl; Bergen/NO</td>
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<td>» Child health in the Sustainable Development Goals (SDG) era [IF 11-2] Anshu Banerjee; Geneva/CH</td>
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<td>» The challenges of health care delivery to refugee and migrant children [IF 11-3] Gaela Bernini; Milan/IT</td>
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<td>» ESPR Outreach task force: what is our best way to help? [IF 11-4] Joanna Kasznia-Brown; Taunton/UK</td>
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<td>» Panel discussion: How can we efficiently reach out to children in low resource areas to develop self-sustainable aid-programs? [IF 11-5]</td>
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<th><strong>13 March</strong></th>
<th><strong>Friday, March 13, 16:00–17:30</strong></th>
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<th><strong>The child as an individual: whose life is it anyway?</strong></th>
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<td>» Chairperson’s introduction [IF 12-1] Bella Said; London/UK</td>
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<td>» Use of restraints in children: what is acceptable, when and why? [IF 12-2] Jørgen Dahlberg; Oslo/NO</td>
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<td>» Parental and cultural autonomy: can carers make any decisions on behalf of their child? [IF 12-3] Eduard Verhagen; Groningen/NL</td>
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<td>» Paediatric radiology: is there really any point? [IF 12-4] Øystein E. Olsen; London/UK</td>
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<td>» Panel discussion: Who defines what is best for the child? [IF 12-5]</td>
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<td>» Closing remarks Lil-Sofie Ording Müller; Oslo/NO [IF 12-6] Catherine Owens; Doha/QA [IF 12-7]</td>
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The Image Interpretation Quiz (IIQ) and the Junior Image Interpretation Quiz (JIIQ) are two traditional highlights of ECR and provide both education and entertainment. During these interactive sessions, distinguished panels of radiologists will share their knowledge and diagnosis strategies with you.

The theme of the IIQ is “Humans vs Machines”, demonstrating the latest developments in artificial intelligence and exploring the strengths and weaknesses of the field through a competition with the audience, presided over by a panel of experts.

The JIIQ will present “Heroes assemble: join our ranks”, which explores a variety of fascinating cardiac cases wherein a member of the audience will have the chance to prove themselves as a radiological hero and be awarded a prize.

Places are allocated on a first-come, first-served basis.
**IMAGE INTERPRETATION QUIZZES**

**IIQ**  
**Image Interpretation Quiz**  
**Humans vs Machines**

**Moderator:** Paul M. Parizel; Perth, WA/AU  
**Introduction**  
Boris Briklačić; Zagreb/HR  
**Panellists:**  
José Vilar; Valencia/ES  
Gábor Forrai; Budapest/HU  
Konstantin Nikolaou; Tübingen/DE  
Cem Calli; Izmir/TR  
Alexandre Krainik; Grenoble/FR

**JIIQ**  
**Junior Image Interpretation Quiz**  
**Heroes assemble: join our ranks**

**Moderator:** Maja Pirnat; Maribor/SI  
**Introduction**  
Michael H. Fuchsjäger; Graz/AT  
**Panellists:**  
Tihana Balasko Josipovic; Zagreb/HR  
Milos Vrhovec; Slovenj Gradec/SI  
Johannes Schmid; Graz/AT  
Livia Marchitelli; Rome/IT

= Interactive session with electronic voting/self assessment
The New Horizons Sessions (NH) provide an insight into recent developments within a specific area of practice, be that innovations in technique, evolutions within a speciality, or improvements in disease treatment. Exploration of these topics allows presenters to highlight advancements that may become routine in the near future, or that indicate a whole new area of research and clinical application. A panel discussion is held at the end of each session wherein ideas are further explored between the session presenters.

Places are allocated on a first-come, first-served basis.
NEW HORIZONS SESSIONS

14 March  Saturday, March 14, 08:30–10:00, Room G
NH 13 Alzheimer’s disease and neurodegeneration: visualising the invisible

» Chairperson’s introduction [NH 13-1]
  Sven Haller; Geneva/CH

» Visualising the human glymphatic system [NH 13-2]
  Geir Ringstad; Oslo/NO

» PET as part of the biomarker toolbox for early clinical diagnosis of Alzheimer’s disease [NH 13-3]
  Javier Arbizu; Pamplona/ES

» Imaging beyond beta-amyloid and tau: insights from high-field MRI [NH 13-4]
  Louise van der Weerd; Leiden/NL

» Integrating population imaging with clinical imaging for the memory clinic: the Oxford Brain Health Centre [NH 13-5]
  Clare Mackay; Oxford/UK

» Panel discussion: Over 100 years of hype and hope in dementia and Alzheimer’s research: what lessons have we learned, and what are the future directions? [NH 13-6]

14 March  Saturday, March 14, 16:00–17:30, Room O
NH 16 Lung cancer screening implementation in Europe: is it inevitable?

» Chairperson’s introduction [NH 16-1]
  Mathias Prokop; Nijmegen/NL

» NELSON trial latest results [NH 16-2]
  Harry J. de Koning; Rotterdam/NL

» Lung cancer screening in Europe [NH 16-3]
  Mario Silva; Parma/IT

» Challenges to implementing lung cancer screening: US experience [NH 16-4]
  Alexander A. Bankier; Boston, MA/US

» Lung cancer screening: will humans still be needed? [NH 16-5]
  Bram Van Ginneken; Nijmegen/NL

» Panel discussion: Lung cancer screening, from trial to practice [NH 16-6]
  Mathias Prokop; Nijmegen/NL
  Harry J. de Koning, Rotterdam/NL
  Alexander A. Bankier; Boston, MA/US
  Bram Van Ginneken; Nijmegen/NL
  Stefania Vallone; Turin/IT

15 March  Sunday, March 15, 08:30–10:00, Room G
NH 17 MRI of the future

» Chairperson’s introduction [NH 17-1]
  Ferdia A. Gallagher; Cambridge/UK

» Is there a future for gadolinium-based contrast agents? [NH 17-2]
  Olivier Clément; Paris/FR

» High field MRI: is higher better and is there a limit? [NH 17-3]
  Siegfried Trattnig; Vienna/AT

» Novel MRI contrast methods: CEST, hyperpolarisation [NH 17-4]
  Silvio Aime; Turin/IT

» Quantitative MRI: fingerprinting and beyond [NH 17-5]
  Vikas Gulani; Ann Arbor, MI/US

» Matrix in vision: non-invasive imaging of the extracellular matrix [NH 17-6]
  Bernd Hamm; Berlin/DE

» Panel discussion: What are the promising emerging areas in MRI? [NH 17-7]
The State of the Art Symposia sessions (SA) are an opportunity for experts in their field to educate and inform the audience on essential topics such as anatomical regions, specific diseases, or particular techniques. Presentations are backed by experience, evidence, and data of the chosen subjects, and followed up with a conversation between the panellists led by the chairperson.

Places are allocated on a first-come, first-served basis.
### STATE OF THE ART SYMPOSIA

**Thursday, March 12, 14:00–15:30, Room M 4**

**SA 7** Musculoskeletal ultrasound of the extremities

- **Chairperson’s introduction** ([SA 7-1])
  - Georgina M. Allen; Oxford/UK

- **Tendons, ligaments and retinaculae of the wrist and hand** ([SA 7-2])
  - Marie Faruch; Toulouse/FR

- **Tendons, ligaments and retinaculae of the ankle and foot** ([SA 7-3])
  - Georgina M. Allen; Oxford/UK

- **Soft tissue masses** ([SA 7-4])
  - Elena E. Drakonaki; Iraklion/GR

- **Peripheral nerve disorders** ([SA 7-5])
  - Carlo Martinoli; Genoa/IT

- **Panel discussion: How can we, as radiologists, best serve the interest of the patient in musculoskeletal ultrasound of the extremities while protecting our turf?** ([SA 7-6])

**Friday, March 13, 08:30–10:00, Tech Gate Auditorium**

**SA 9** Immunotherapy: what the radiologist needs to know

- **Chairperson’s introduction** ([SA 9-1])
  - Jacob Sosna; Jerusalem/IL

- **Immunotherapy: the basics for radiologists** ([SA 9-2])
  - Tony Ng; London/UK

- **Assessment of tumour response** ([SA 9-3])
  - Chikako Suzuki; Stockholm/SE

- **The immune response in interventional oncology: challenges and opportunities** ([SA 9-4])
  - S. Nahum Goldberg; Jerusalem/IL

- **Panel discussion: Role of radiologists in immunotherapy** ([SA 9-5])

**Saturday, March 14, 16:00–17:30, Room F1**

**SA 16** Hepatocellular carcinoma (HCC): the role of radiology

- **Chairperson’s introduction** ([SA 16-1])
  - Filipe Caseiro Alves; Coimbra/PT

- **A clinician’s perspective on the role of radiology in HCC: any room for improvement?** ([SA 16-2])
  - Marcus-Alexander Wörns; Mainz/DE

- **Guidelines and beyond: the non-invasive diagnosis of HCC** ([SA 16-3])
  - Claude B. Sirlin; San Diego, CA/US

- **How to approach a small lesion in cirrhosis** ([SA 16-4])
  - Giuseppe Brancatelli; Palermo/IT

- **How imaging can help choose treatment of HCC and the role of interventional radiology** ([SA 16-5])
  - Valérie Vilgrain; Clichy/FR

- **Panel discussion: How can we improve the diagnosis of HCC?** ([SA 16-6])
The Special Focus Sessions (SF) explore cutting-edge developments within the world of clinical radiology, tackling these complex matters through in-depth analysis and debate. Presenters are invited to express their expert views and opinions through a lively discourse.

Places are allocated on a first-come, first-served basis.
SPECIAL FOCUS SESSIONS

March 11
Wednesday, March 11, 08:30–10:00, Descartes (Room D3)
SF 1a Evaluating oncologic treatment response in clinical practice and trials

» Chairperson’s introduction [SF 1a-I]
Marc Dewey; Berlin/DE

» Insights from trials about endpoints for response evaluation in clinical practice [SF 1a-2]
Laure S. Fournier; Paris/France

» Integrating quantitative imaging into clinical practice [SF 1a-3]
Nandita M. deSouza; Sutton/UK

» Quantification of bone metastases becomes possible in clinical practice [SF 1a-4]
Frédéric E. Lecouvet; Brussels/Belgium

» Panel discussion: How to best evaluate oncologic response in clinical practice? [SF 1a-5]

March 11
Wednesday, March 11, 10:30–12:00, Da Vinci (Room D1)
SF 2b My three most dreaded head and neck requests

» Chairperson’s introduction [SF 2b-I]
Piotr Golofit; Szczecin/Poland

» Tinnitus [SF 2b-2]
Berit Verbist; Leiden/Netherlands

» Enlarged lymph nodes [SF 2b-3]
Roberto Maroldi; Brescia/Italy

» Hoarseness [SF 2b-4]
Edith Vassallo; Msida/Malta

» Panel discussion: How to deal with symptomatic patients without definite imaging findings? [SF 2b-5]

March 11
Wednesday, March 11, 08:30–10:00, Tech Gate Auditorium
SF 1b CEUS in children

» Chairperson’s introduction [SF 1b-I]
Magdalena Wozniak; Lublin/Poland

» Liver and extrahepatic intravenous applications [SF 1b-2]
Damjana Kljucevsek; Ljubljana/Slovenia

» Vesicoureteral (VU) reflux [SF 1b-3]
Goran Roic; Zagreb/Croatia

» Traumas [SF 1b-4]
Hans-Joachim Mentzel; Jena/Deutschland

» Panel discussion: Is off-label use of CEUS in children a cause for concern? [SF 1b-5]

March 11
Wednesday, March 11, 10:30–12:00, Room N
SF 2a Prostate embolisation

» Chairperson’s introduction: New developments in managing benign prostatic disease [SF 2a-I]
Hanno Hoppe; Berne/CH

» Patient selection and assessment [SF 2a-2]
Tiago Bilhim; Lisbon/Portugal

» Anatomy, imaging and planning [SF 2a-3]
Charles Tapping; Oxford/UK

» Embolisation technique [SF 2a-4]
Kai Wilhelm; Bonn/Deutschland

» Outcome and results from trials [SF 2a-5]
Florian Wolf; Vienna/Austria

» Panel discussion: New developments in managing benign prostatic disease [SF 2a-6]
**Educational and Scientific Programme**

### SPECIAL FOCUS SESSIONS

#### Thursday, March 12, 08:30–10:00, Room F2

**SF 5**  
**MRI of rectal carcinoma**

- **Chairperson's introduction**  
  Ivana Blazic; Belgrade/RS
- **Keynote lecture: The disappearing rectal cancer: the radio-surgical challenge of our time**  
  Richard John Heald; Southampton/UK
- **Rectal cancer revisited: Dutch perspective**  
  Regina G.H. Beets-Tan; Amsterdam/NL
- **Rectal cancer revisited: UK perspective**  
  Gina Brown; Sutton/UK
- **Rectal cancer: old challenges, new tools**  
  Lennart K. Blomqvist; Stockholm/SE
- **Panel discussion: Role of the radiologist in diagnosis and management of rectal cancer**

#### Thursday, March 12, 14:00–15:30, Room C

**SF 7a**  
**Addressing challenges in imaging of larger patients**

- **Chairpersons' introduction**  
  Vibeke Logager; Copenhagen/DK  
  Jonathan McNulty; Dublin/IE
- **Key considerations in general radiography examinations of larger patients**  
  Karen Knapp; Exeter/UK
- **Modification of ultrasound technique and protocols for larger patients**  
  Barbara Kraus; Vienna/AT
- **Diagnostic image quality considerations for larger patients in computed tomography**  
  Shane J. Foley; Dublin/IE
- **Optimal imaging of larger patients in magnetic resonance imaging**  
  Elise Thiry; Strasbourg/FR
- **Panel discussion: How such patient diversity can impact on daily practice and how we can improve our services?**

#### Thursday, March 12, 14:00–15:30, Da Vinci (Room D1)

**SF 7b**  
**How radiologists can help the infertile couple**

- **Chairperson's introduction**  
  Michal Studniarek; Gdansk/PL
- **Andrology expert's view on the role of radiology in infertility**  
  Davor Jezek; Zagreb/HR
- **Imaging the infertile men: when and how?**  
  Michele Bertolotto; Trieste/IT
- **Imaging the infertile women: when and how?**  
  Rosemarie Forstner; Salzburg/AT
- **Interventional radiology in male and female infertility**  
  Raman Uberoi; Oxford/UK
- **Panel discussion: What is the role of the radiologist in the workup of infertility?**

#### Thursday, March 12, 14:00–15:30, Darwin (Room D2)

**SF 7c**  
**BasiCardiac for non-cardiac radiologists**

- **Chairperson's introduction**  
  Luigi Natale; Rome/IT
- **Cardiac findings in ungated chest CT**  
  Konstantin Nikolau; Tübingen/DE
- **Coronary artery disease: how, why, and when a cardiac CT?**  
  Rozemarijn Vliegenthart; Groningen/NL
- **CMR: characterising myocardial damage**  
  Marco Francone; Rome/IT
- **Acute chest pain with normal coronaries: a clear indication for CMR**  
  Matthias Gutberlet; Leipzig/DE
- **Panel discussion: The heart is not a black hole in the chest**

#### Thursday, March 12, 16:00–17:30, Studio 2020

**SF 8a**  
**How to diagnose and manage abdominal, retroperitoneal and pelvic incidentalomas**

- **Chairperson's introduction**  
  Andrea G. Rockall; London/UK
- **Liver, pancreatic and splenic incidentalomas**  
  Andrzej Cieszanowski; Warsaw/PL
- **Adrenal and renal incidentalomas**  
  Mikael Hellström; Gothenburg/SE
- **Pelvic incidentalomas**  
  Deniz Akata; Ankara/TR
- **Panel discussion: The management of incidentalomas: when to dismiss, follow-up or treat them?**
Thursday, March 12, 16:00–17:30, Da Vinci (Room D1)

**SF 8b Quantitative MRI: from MR-physics to tissue microstructure**

- **Chairperson’s introduction**
  Lorella Mascaro; Brescia/IT
- **T1, T2, and PD: direct mapping or not?**
  Marcel Jan Bertus Warmtjes; Linköping/SE
- **Bringing quantitative magnetic susceptibility mapping into the clinic**
  Christian Langkammer; Graz/AT
- **Promises and pitfalls of magnetisation transfer and diffusion**
  Mara Cercignani; Brighton/UK
- **Panel discussion: From direct mapping to extrapolating MR-properties**

Thursday, March 12, 16:00–17:30, Room G

**SF 8c Fibrotic lung diseases: what radiologists should know or learn**

- **Chairperson’s introduction**
  Sujal R. Desai; London/UK
- **Fleischner updated criteria for the diagnosis of idiopathic pulmonary fibrosis (IPF)**
  Nicola Sverzellati; Parma/IT
- **Drug and radiation-induced lung fibrosis**
  Cornelia M. Schaefer-Prokop; Amersfoort/NL
- **Connective tissue disease-related lung fibrosis**
  Guillaume Chassagnon; Paris/FR
- **Panel discussion: The pivotal role of radiologists for lung fibrosis management**

Friday, March 13, 08:30–10:00, Room X

**SF 9a Hybrid imaging: beyond FDG PET/CT**

- **Chairperson’s introduction**
  Thomas Beyer; Vienna/AT
- **Prostate specific membrane antigen (PSMA) hybrid imaging in guiding prostate cancer therapy**
  Clemens C. Cyran; Munich/DE
- **Somatostatin receptor imaging and therapy**
  Luigi Aloj; Cambridge/UK
- **Hybrid PET and SPECT for cardiovascular imaging**
  Albert Florent; Barcelona/ES
- **Imaging to guide immuno-oncology**
  Umar Mahmood; Charlestown, MA/US
- **Panel discussion: New trends in hybrid imaging**

Friday, March 13, 08:30–10:00, Studio 2020

**SF 9b Imaging of migrant and refugee children**

- **Chairperson’s introduction**
  Michal Soudack; Ramat Gan/IL
- **Challenge of promoting health of refugee and migrant children in Europe**
  Anders Hyrén; Stockholm/SE
- **Imaging of emerging diseases in refugee and migrant children**
  Berna Oguz; Ankara/TR
- **Age determination for legal purpose**
  Lil-Sofie Ording Müller; Oslo/NO
- **Panel discussion: The role of the radiologist in the management of refugee and migrant children**

March 13, Friday, March 13, 08:30–10:00, Room E

SF 9c  My top three tips for breast imaging

» Chairperson's introduction  [SF 9c-1]
  Michael H. Fuchsjäger; Graz/AT

» Screening with tomosynthesis  [SF 9c-2]
  Sophia Zackrisson; Malmö/SE

» Automated breast ultrasound  [SF 9c-3]
  Athina Vourtsis; Athens/GR

» Complex cystic and solid lesions  [SF 9c-4]
  Panagiotis Kapetas; Vienna/AT

» Questions and discussion  [SF 9c-5]

» Imaging the axilla  [SF 9c-6]
  Aysenur Oktay; Izmir/TR

» Contrast-enhanced spectral mammography  [SF 9c-7]
  Corinne S. Baileyguier; Villejuif/FR

» Stereotactic-guided biopsy  [SF 9c-8]
  Dragana Djilas-Ivanovic; Sremska Kamenica/RS

» Questions and discussion  [SF 9c-9]

» US-guided biopsy  [SF 9c-10]
  Gordana Ivanac; Zagreb/HR

» MRI-guided biopsy  [SF 9c-11]
  Ritse M. Mann; Nijmegen/NL

» Treatment response and therapy monitoring  [SF 9c-12]
  Eva M. Fallenberg; Munich/DE

» Post-therapy evaluation  [SF 9c-13]
  Julia Camps Herrero; Valencia/ES

» Questions and discussion  [SF 9c-14]

March 13, Friday, March 13, 16:00–17:30, Tech Gate Auditorium

SF 12  Update in head and neck cancer imaging

» Chairperson's introduction  [SF 12-1]
  Marco Ravanelli; Brescia/IT

» Functional imaging for characterisation of primary tumours  [SF 12-2]
  Maartje de Win; Amsterdam/NL

» Functional imaging for treatment prediction and treatment monitoring  [SF 12-3]
  Minerva Becker; Geneva/CH

» Texture analysis and radiogenomics in head and neck carcinoma  [SF 12-4]
  Ann D. King; Hong Kong/CN

» Panel discussion: New tools in head and neck oncology: fancy follies or must haves?  [SF 12-5]
**SPECIAL FOCUS SESSIONS**

**SF 13**  Saturday, March 14, 08:30–10:00, Studio 2020

- **The abused child: the key role of imaging**
- **Chairperson’s introduction** [SF 13-1]
  Stein Magnus Aukland; Bergen/NO
- **Skeletal injury: should we use radiography or CT?** [SF 13-2]
  Rick R. van Rijn; Amsterdam/NL
- **Head injury CT and/or MRI?** [SF 13-3]
  Arabinda Choudhary; Little Rock, AR/US
- **Inflicted abdominal injury** [SF 13-4]
  Maria Raissaki; Iraklion/GR
- **Testimony in court** [SF 13-5]
  Amaka C. Offiah; Sheffield/UK
- **Panel discussion: Imaging in non-accidental injury: the role of the paediatric radiologist** [SF 13-6]

**SF 15**  Saturday, March 14, 14:00–15:30, Room E

- **My top three tips for imaging musculoskeletal injury** [SF 15-1]
- **Chairperson’s introduction** [SF 15-1]
  Ustun Aydingoz; Ankara/TR
- **Wrist** [SF 15-2]
  Jean-Luc Drapé; Paris/FR
- **Shoulder** [SF 15-3]
  Klaus Wörtler; Munich/DE
- **Hip** [SF 15-4]
  Vasco Mascarenhas; Lisbon/PT
- **Knee** [SF 15-5]
  Christian W.A. Pfirrmann; Zurich/CH
- **Ankle** [SF 15-6]
  Bruce B. Forster; Vancouver, BC/CA
- **Panel discussion: My single best tip in improving diagnostic accuracy in musculoskeletal injury** [SF 15-7]

**SF 17a**  Sunday, March 15, 08:30–10:00, Studio 2020

- **Colorectal liver metastasis: treatment planning and management** [SF 17a-1]
- **Chairperson’s introduction** [SF 17a-1]
  Okan Akhan; Ankara/TR
- **Surgeon’s perspective: what is needed?** [SF 17a-2]
  John Conneely; Dublin/IE
- **Radiologist’s perspective: what should be shown?** [SF 17a-3]
  Damir Miletić; Rijeka/HR
- **Interventional radiology in oncology perspective: which therapies are recommended?** [SF 17a-4]
  Roberto Iezzi; Rome/IT
- **Immunotherapy and the role of the radiologist** [SF 17a-5]
  Joanna Podgorska; Warsaw/PL
- **Panel discussion: The role of diagnostic and interventional radiology in diagnosis and management of colorectal liver metastasis** [SF 17a-6]

**SF 17b**  Sunday, March 15, 08:30–10:00, Room M 4

- **When stroke happens in children** [SF 17b-1]
- **Chairperson’s introduction** [SF 17b-1]
  Maria I. Argyropoulou; Ioannina/GR
- **Stroke in neonates** [SF 17b-2]
  Maarten H. Lequin; Utrecht/NL
- **Stroke in older children** [SF 17b-3]
  Thekla von Kalle; Stuttgart/DE
- **Interventional radiology in paediatric stroke** [SF 17b-4]
  Olivier Naggara; Paris/FR
- **Panel discussion: How to organise stroke care related to age?** [SF 17b-5]
The Professional Challenges Sessions (PC) aim to provide a platform for important issues experienced by those working within the field of radiology. Subjects of current relevance, such as training, education, research, networking, and management, are presented.

Places are allocated on a first-come, first-served basis.
### PROFESSIONAL CHALLENGES SESSIONS

#### Thursday, March 12, 08:30–10:00, Room X

**PC 5**  
Audit and value in clinical radiology: enhancing quality  
_Jointly organised by the ESR Subcommittees on PIER and Audit and Standards_

- **Chairperson’s introduction**  
  [PC 5-1]  
  Adrian Brady; Cork/IE

- **Developing and implementing a national audit programme**  
  [PC 5-2]  
  Juha Suutari; Helsinki/FI

- **Audit and quality improvement: the UK perspective**  
  [PC 5-3]  
  David C. Howlett; Eastbourne/UK

- **Clinical audit: the radiographer’s perspective**  
  [PC 5-4]  
  Graciano Paulo; Coimbra/PT

- **Adding value in radiology**  
  [PC 5-5]  
  James P. Borgstede; Colorado Springs, CO/US

- **Panel discussion: Auditing: cumbersome formality or beneficial value-adding activity?**  
  [PC 5-6]

#### Thursday, March 12, 16:00–17:30, Descartes (Room D3)

**PC 8**  
Patient engagement, visible radiology and eHealth  
_Jointly organised by the ESR Subcommittee on PIER and ESR Patient Advisory Group (ESR-PAG)_

- **Chairpersons’ introduction**  
  [PC 8-1]  
  Nicola Bedlington; Vienna/AT  
  Elmar Kotter; Freiburg/DE  
  [PC 8-2]

- **Clinical services, communication with patients: which kind of report/language is expected**  
  [PC 8-3]  
  Jan M.L. Bosmans; Ghent/BE

- **Patient engagement in research: donation of data, risk-sharing in oncology, incentives for screening**  
  [PC 8-4]  
  Erik Briers; Hasselt/BE

- **Patient access to reports and images: solutions and experiences**  
  [PC 8-5]  
  Wende N. Gibbs; Phoenix, AZ/US

- **Education and training**  
  [PC 8-6]  
  Laura Oleaga Zufiria; Barcelona/ES

- **Panel discussion: Should radiology be more active in direct communication with patients?**  
  [PC 8-7]

#### Friday, March 13, 08:30–10:00, Descartes (Room D3)

**PC 9**  
Postgraduate and speciality training for radiographers

- **Chairpersons’ introduction**  
  Deniz Akata; Ankara/TR  
  Barbara Kraus; Vienna/AT  
  [PC 9-1]  
  [PC 9-2]

- **Postgraduate radiographer training across Europe**  
  [PC 9-3]  
  Louise A. Rainford; Dublin/IE

- **Ultrasound training requirements**  
  [PC 9-4]  
  Rute Santos; Coimbra/PT

- **In-house cardiovascular interventional training**  
  [PC 9-5]  
  Hervé Faltot; Colmar/FR

- **Paediatric radiography training in specialised and non-specialised centres**  
  [PC 9-6]  
  Jonathan Portelli; Msida/MT

- **Panel discussion: Overcoming the challenges in postgraduate radiography education**  
  [PC 9-7]

#### Saturday, March 14, 08:30–10:00, Descartes (Room D3)

**PC 13**  
Equipment purchasing decisions: a team approach

- **Chairperson’s introduction**  
  Annalisa Trianni; Udine/IT

- **Preliminary evaluation of the need and utilisation**  
  [PC 13-2]  
  Elmar Kotter; Freiburg/DE

- **Technical specification as the prerequisite for clinical use**  
  [PC 13-3]  
  Andy Rogers; Nottingham/UK

- **Site planning and project management**  
  [PC 13-4]  
  Mustafa N. Özmen; Ankara/TR

- **Legal and financial aspects of procurement**  
  [PC 13-5]  
  Andrea Giovagnoni; Ancona/IT

- **Economic issues**  
  [PC 13-6]  
  Elisabeth Schouron-Claeys; Paris/FR

- **Panel discussion: How to choose the right machine?**  
  [PC 13-7]

#### Sunday, March 15, 08:30–10:00, Da Vinci (Room D1)

**PC 17**  
Challenges facing the radiology workforce  
_Organised by the ESR Subcommittee on PIER_

- **Chairperson’s introduction**  
  Sergey Morozov; Moscow/RU

- **Strategies to overcome radiologists shortage including “turf battles - a friend or a foe?”, teleradiology, artificial technology, delegation to radiographers**  
  [PC 17-2]  
  Neelam Dugar; Doncaster/UK

- **Education and training challenges**  
  [PC 17-3]  
  Carlo Catalano; Rome/IT

- **Challenges and opportunities with subspecialisation in radiology**  
  [PC 17-4]  
  Christoph D. Becker; Geneva/CH

- **Radiologists' workload and risks for burnout**  
  [PC 17-5]  
  Bruce B. Forster; Vancouver, BC/CA

- **Panel discussion: Is radiology at risk due to shortages, subspecialisation and other challenges?**  
  [PC 17-6]
The Coffee and Talk Sessions (C) are an opportunity for essential topics to be discussed in an informal and comfortable setting. Composed of short presentations aimed at promoting a dialogue of a particular subject, the second half of the session then opens the conversation to the room, allowing a free-flowing of ideas and thoughts between the presenters and the audience.

Places are allocated on a first-come, first-served basis.
COFFEE & TALK SESSIONS

Wednesday, March 11, 12:45–13:45, Coffee & Talk 1

C 1  The scholar and fellow’s experience
Organised by ESOR

» Chairperson’s introduction [C 1-1]
Maria I. Argyropoulou; Ioannina/GR

» Visiting scholar in Europe [C 1-2]
Filippo Pesapane; Milan/IT

» Visiting scholar in USA [C 1-3]
Julian Kirchner; Düsseldorf/DE

» Exchange fellow in Europe [C 1-4]
Nino Bogveradze; Tbilisi/GE

» Bracco clinical fellow [C 1-5]
Chloé Standaert; Ghent/BE

» Open forum discussion [C 1-6]

Wednesday, March 11, 12:45–13:45, Coffee & Talk 3

C 19  Structured reporting: how to provide the key information - application to thoracic imaging

» Chairperson’s introduction [C 19-1]
Hans-Ulrich Kauczor; Heidelberg/DE

» Pulmonary embolism [C 19-2]
Benoît Ghaye; Brussels/BE

» Pulmonary nodules in lung cancer screening [C 19-3]
Mario Silva; Parma/IT

» Diffuse parenchymal lung disease [C 19-4]
Helmut Prosch; Vienna/AT

» Open forum discussion [C 19-5]

Wednesday, March 11, 14:00–15:00, Coffee & Talk 3

C 34  Oncologic imaging and the World Health Organisation (WHO)
Organised by WHO

» Chairperson’s introduction [C 34-1]
Erika R.E. Denton; Norwich/UK

» The work of the World Health Organisation in oncologic imaging [C 34-2]
Ian A. Cree; Lyon/FR

» How do radiologists currently standardise oncologic reporting? [C 34-3]
Andrea G. Rockall; London/UK

» Open forum discussion [C 34-4]

Wednesday, March 11, 16:00–17:00, Coffee & Talk 1

C 2  Quality and standards
Organised by ESOR

Moderator: Hans-Ulrich Kauczor; Heidelberg/DE

» What a fellow should learn about “Quality and Standards” [C 2-1]
Adrian Brady; Cork/IE

» What a fellow wants to learn about “Quality and Standards” [C 2-2]
Maja Marolt Music; Ljubljana/SI

» Role of radiographers in “Quality and Standards” [C 2-3]
Hakon H. Hjemly; Oslo/NO

» Role of structured reporting to foster “Quality and Standards” [C 2-4]
Wieland H. Sommer; Munich/DE

» Open forum discussion [C 2-5]

Wednesday, March 11, 16:00–17:00, Coffee & Talk 3

C 20  Imaging biobanks: from concept to implementation

» Chairperson’s introduction: What is an imaging biobank? [C 20-1]
Emanuele Neri; Pisa/IT

» Pulmonary embolism [C 20-2]
Benoît Ghaye; Brussels/BE

» Pulmonary nodules in lung cancer screening [C 20-3]
Mario Silva; Parma/IT

» Diffuse parenchymal lung disease [C 20-4]
Helmut Prosch; Vienna/AT

» Open forum discussion [C 20-5]
COFFEE & TALK SESSIONS

Thursday, March 12, 08:30–09:15, Coffee & Talk 3

C 21 Statistics resources for radiology research

» Chairperson’s introduction [C 21-1]
  Ustun Aydingoz; Ankara/TR

» Books and journal articles for learning and applying statistics in radiology research [C 21-2]
  Giovanni Di Leo; San Donato Milanese/IT

» Internet sources for learning and applying statistics in radiology research [C 21-3]
  Viktoria Wieske; Berlin/DE

» The p-value controversy in statistics: what the radiologist needs to know [C 21-4]
  Tugba Akinci D’Antonoli; Basle/CH

» Open forum discussion [C 21-5]

Thursday, March 12, 09:00–10:00, Coffee & Talk 1

C 3 Imaging research: making the most of our opportunities

Organised by ESOR

» Chairperson’s introduction [C 3-1]
  Vicky J. Goh; London/UK

» Why is imaging research important? [C 3-2]
  Gary Cook; London/UK

» Why should you undertake a PhD? [C 3-3]
  Damiano Caruso; Rome/IT

» Being an academic radiologist: what does this really mean in practice? [C 3-4]
  Sofia Gourtsoyianni; Athens/GR

» Research in the artificial intelligence era: how can we compete? [C 3-5]
  Kieran Foley; Llantrisant/UK

» Making the most of interdisciplinary research: artificial intelligence and beyond [C 3-6]
  Vicky J. Goh; London/UK

» Open forum discussion [C 3-7]

Thursday, March 12, 09:30–10:15, Coffee & Talk 3

C 22 How to organise research in radiology

» Chairperson’s introduction [C 22-1]
  Ferdia A. Gallagher; Cambridge/UK

» A research group as a small business: managing and running research [C 22-2]
  Gabriel P. Krestin; Rotterdam/NL

» Starting an academic career: balancing clinical work and research [C 22-3]
  Ramona Woitek; Cambridge/UK

» Open forum discussion: the challenges of clinical research and how to succeed [C 22-4]

Thursday, March 12, 12:45–13:45, Coffee & Talk 1

C 4 ESOR and its role in online education

Organised by ESOR

» Chairperson’s introduction [C 4-1]
  Christian Loewe; Vienna/AT

» ESR Education on demand: how does it work, what is there for you [C 4-2]
  Sue Barter; Bedford/UK

» ESOR in ESR Connect: where is the future? [C 4-3]
  Valérie Vilgrain; Clichy/FR

» Open forum discussion [C 4-4]

Thursday, March 12, 12:45–13:45, Coffee & Talk 3

C 23 How to get my manuscript accepted: tips and tricks from the editors

Organised by ESR Journals

» Chairperson’s introduction [C 23-1]
  Marion Smits; Rotterdam/NL

» How to “polish” a submission [C 23-2]
  Yves Menu; Paris/FR

» How to reply to reviewers’ criticism [C 23-3]
  Francesco Sardanelli; San Donato Milanese/IT

» How to manage critical reviews [C 23-4]
  Luis Marti-Bonmati; Valencia/ES

» Open forum discussion [C 23-5]

Thursday, March 12, 14:00–15:00, Coffee & Talk 3

C 24 How to get my manuscript accepted: getting help from reporting guidelines

Organised by ESR Journals

» Chairperson’s introduction [C 24-1]
  Yves Menu; Paris/FR

» Why are STARD and STROBE useful and how do they help authors and editors? [C 24-2]
  Francesco Sardanelli; San Donato Milanese/IT

» What is PRISMA, and what is the recipe for a relevant meta-analysis? [C 24-3]
  Marc Dewey; Berlin/DE

» Can we elaborate guidelines or a checklist for radiomics studies? [C 24-4]
  Daniel Pinto dos Santos; Cologne/DE

» Open forum discussion [C 24-5]
**COFFEE & TALK SESSIONS**

**Thursday, March 12, 16:00–17:00, Coffee & Talk 1**

**C 35** ETAP 2.0: a certification of excellence for radiology training departments
Organised by the European Board of Radiology (EBR)

- Chairperson’s introduction [C 35-1]
  Dragos Negru; Iasi/RO
- Steps for the certification [C 35-2]
  Antanas Montvila; Kaunas/LT
- Benefits of getting ETAP 2.0 certified [C 35-3]
  Jeannette Kraft; Leeds/UK
- Open forum discussion [C 35-4]

**Thursday, March 12, 16:00–17:00, Coffee & Talk 3**

**C 25** Publishing in the radiography journal

- Chairperson’s introduction [C 25-1]
  Julie Michelle Nightingale; Sheffield/UK
- A tool to help establish the evidence base for the profession [C 25-2]
  Helle Precht; Odense/DK
- Review articles: how to get your work published [C 25-3]
  Francis Zarb; Msida/MT
- The reviewer’s perspective and how to respond [C 25-4]
  Andrew England; Salford/UK
- Editor-in-chief’s top ten tips for publishing success [C 25-5]
  Julie Michelle Nightingale; Sheffield/UK
- Open forum discussion [C 25-6]

**Friday, March 13, 09:00–10:00, Coffee & Talk 1**

**C 5** What would the next generation of radiologists look like?
Organised by ESOR

- Moderator: Carlo Catalano; Rome/IT [C 5-M]
- A clinical radiologist [C 5-1]
  Ramy Mansour; Oxford/UK
- An interventional radiologist [C 5-2]
  Alessandro Napoli; Rome/IT
- An “artificial intelligent” radiologist [C 5-3]
  Luis Martí-Bonmatí; Valencia/ES
- A researcher [C 5-4]
  Olivier Clément; Paris/FR
- Open forum discussion [C 5-5]

**Friday, March 13, 09:00–10:00, Coffee & Talk 3**

**C 26** Embolisation techniques: tips and tricks

- Chairperson’s introduction [C 26-1]
  Thomas J. Kroencke; Augsburg/DE
- Embolisation in trauma [C 26-2]
  Suzie Anthony; Oxford/UK
- Embolisation for endoleaks post endovascular aneurysm repair (EVAR) [C 26-3]
  Robert Morgan; London/UK
- Gonadal vein embolisation [C 26-4]
  Antonio Basile; Catania/IT
- Oncology embolisation of liver tumours [C 26-5]
  Peter Reimer; Karlsruhe/DE
- Open forum discussion [C 26-6]
- Open forum discussion [C 26-7]

**Friday, March 13, 12:45–13:45, Coffee & Talk 3**

**C 27** Artificial intelligence (AI) and the future of imaging: European funding prospects
Organised by EIBIR

- Chairperson’s introduction [C 27-1]
  Gabriel P. Krestin; Rotterdam/NL
- The importance of artificial intelligence in imaging research [C 27-2]
  Wiro J. Niessen; Rotterdam/NL
- Deep learning in imaging and cancer care [C 27-3]
  Georg Langs; Vienna/AT
- Applying artificial intelligence for biomarker discovery [C 27-4]
  Angel Alberich-Bayarri; Valencia/ES
- European funding and support services for AI and imaging research [C 27-5]
  Pamela Zolda; Vienna/AT
- Open forum discussion [C 27-6]
COFFEE & TALK SESSIONS

13 March  
Friday, March 13, 16:00–17:00, Coffee & Talk 1  
C 6  The European Diploma in Radiology (EDiR) as an instrument to develop a professional career  
Organised by ESOR  
» Chairperson’s introduction  [C 6-1]  
Laura Oleaga Zufiría; Barcelona/ES  
» How to succeed in the EDiR examination: presentation of “EDiR: the essential guide” and new innovative tools to prepare for the EDiR examination  [C 6-2]  
Laura Oleaga Zufiría; Barcelona/ES  
» Why EDiR certification matters  [C 6-3]  
Alexandre Soler; Barcelona/ES  
» Interactive quiz  [C 6-4]  
Winnifred van Lankeren; Rotterdam/NL  
» Open forum discussion  [C 6-5]  

13 March  
Friday, March 13, 16:00–17:00, Coffee & Talk 3  
C 28  Value in radiology: in the eye of the beholder  
Organised by the ESR Subcommittee on Value-based Radiology  
» Chairperson’s introduction  [C 28-1]  
Michael H. Fuchsjäger; Graz/AT  
» Artificial intelligence and value-based health care  [C 28-2]  
Paul R. Algra; Alkmaar/NL  
» What do patients value?  [C 28-3]  
Caroline Justich; Vienna/AT  
» Results of the ESR patient survey on value-based radiology (VBR)  [C 28-4]  
Michael H. Fuchsjäger; Graz/AT  
» Value-based pay models for radiology  [C 28-5]  
Vijay M. Rao; Philadelphia, PA/US  
» Value of radiology: the Canadian perspective  [C 28-6]  
Emil Lee; Langley, BC/CA  
» VBR concepts around the globe: similarities and contrasts  [C 28-7]  
James A. Brink; Boston, MA/US  
» Joint paper on value-based radiology  [C 28-8]  
Adrian Brady; Cork/IE  
» Open forum discussion: International perspectives on value in radiology  [C 28-9]  

14 March  
Saturday, March 14, 09:00–10:00, Coffee & Talk 1  
C 7  Why are research fellowships important for young radiologists?  
Organised by ESOR  
» Chairperson’s introduction  [C 7-1]  
Luis Martí-Bonmatí; Valencia/ES  
» My experience as a young research fellowship recipient  [C 7-2]  
Joao Amorim; Porto/PT  
» Multidisciplinary collaboration to improve research in radiology  [C 7-3]  
Angel Alberich-Bayarri; Valencia/ES  
» How to mentor research fellowship programmes  [C 7-4]  
Riccardo Manfredi; Rome/IT  
» Open forum discussion  [C 7-5]  

14 March  
Saturday, March 14, 09:00–10:00, Coffee & Talk 3  
C 29  Developing the next generation radiologist by targeting undergraduates  
Organised by the ESR Subcommittee on Undergraduate Education  
» Welcome and introduction: It’s never too early to develop the next generation radiologist  [C 29-1]  
Vicky J. Goh; London/UK  
» Why I chose radiology as a future career  [C 29-2]  
Amy Sharkey; London/UK  
» Engaging undergraduates: lessons learnt from a young teacher’s perspective  [C 29-3]  
Atis Svare; Riga/LV  
» Interactivity: using software teaching platforms to inspire undergraduates  [C 29-4]  
Tim Vincent; Brighton/UK  
» How could the ESR develop the next generation radiologists? Delivering the undergraduate curriculum  [C 29-5]  
Carló Catalano; Rome/IT  
» Open forum discussion: The next generation radiologist: next steps in producing a white paper  [C 29-6]  
Laura Oleaga Zufiría; Barcelona/ES
### COFFEE & TALK SESSIONS

#### March 14, Saturday, March 14, 12:45–13:45, Coffee & Talk 3

C 30  **Innovative tools to improve the communication between radiologists and patients**  
Organised by the ESR Patient Advisory Group (ESR-PAG)

- **Chairperson’s introduction**  
  Erik Briers; Hasselt/BE
- **Sharing best practices in engaging with radiologists**  
  Cheryl Cruwys; Gianges/FR
- **The radiologist’s perspective: effectively dividing time for communication with patients**  
  Dominique-Gérard Carrié; Toulouse/FR
- **Patient experiences on optimising communication in the radiology department**  
  Birgit Bauer; Abensberg/DE
- **Achieving better patient outcomes through effective communication and empowerment**  
  Caroline Justich; Vienna/AT
- **Open forum discussion: How to implement a system of effective patient-professional communication**

#### March 14, Saturday, March 14, 14:00–15:00, Coffee & Talk 1

C 8  **ESOR one-year fellowship**  
Organised by ESOR

- **Chairperson’s introduction**  
  Regina G.H. Beets-Tan; Amsterdam/NL
- **Why should you apply for a one-year fellowship?**  
  Thi Dan Linh Nguyen-Kim; Zurich/CH  
  Eun Kyoung Hong; Seoul/KR
- **Open forum discussion**

#### March 14, Saturday, March 14, 14:30–15:30, Coffee & Talk 3

C 31  **Addressing shortages in the medical imaging workforce**

- **Overview from the WHO on the health care worker shortages and contributing factors**  
  Maria del Rosario Perez; Geneva/CH
- **The view of the International Society of Radiology**  
  Luis Donoso; Barcelona/ES
- **The view of the European Society of Radiology**  
  Lorenzo E. Derchi; Genoa/IT
- **The view of the International Society of Radiographers and Radiologic Technologists**  
  Donna Newman; Fargo, ND/US
- **The views of the European Federation of Radiographer Societies**  
  Jonathan McNulty; Dublin/IE
- **Open forum discussion**

#### March 14, Saturday, March 14, 16:00–17:00, Coffee & Talk 3

C 32  **How to advance the academic ladder**

- **Chairperson’s introduction**  
  Jacob Sosna; Jerusalem/IL
- **Judging publications for academic promotions**  
  Luis Martí-Bonmatí; Valencia/ES
- **Grants: importance for science and academia**  
  Gabriel P. Krestin; Rotterdam/NL
- **Open forum discussion**

#### March 15, Sunday, March 15, 10:30–11:30, Coffee & Talk 3

C 33  **Guidance for IT in radiology: how radiologist can benefit from DIAM (Digital Imaging Adoption Model)**  
Organised by the ESR Subcommittee on PiER

- **Chairperson’s introduction**  
  Luis Donoso; Barcelona/ES
- **Overview and update on DIAM radiology**  
  Peter Mildenberger; Mainz/DE
- **Overview and international experiences with DIAM enterprise imaging (EI)**  
  Jörg Studzinski; Leipzig/DE
- **The value of DIAM Gap analyses**  
  Paul Hoogland; Utrecht/NL
- **Open forum discussion: DIAM radiology or DIAM enterprise imaging, which one to go for?**
The Multidisciplinary Sessions (MS) allow experts from a variety of disciplines to come together and discuss a collaborative approach to detection and treatment. Through the use of a case presentation, speakers from the same hospital or country share their expertise on how best to clinically integrate the skills of radiologists and other medical specialists.

Places are allocated on a first-come, first-served basis.
MULTIDISCIPLINARY SESSIONS

Thursday, March 12, 14:00–15:30, Room G
MS 7a Multidisciplinary team for breast cancer

» Chairperson’s introduction [MS 7a-1]
  Gordana Ivanac; Zagreb/HR

» Radiologist’s perspective [MS 7a-2]
  Eugen Divjak; Zagreb/HR

» Pathologist’s perspective [MS 7a-3]
  Cedna Tomasovic-Loncaric; Zagreb/HR

» Surgeon’s perspective [MS 7a-4]
  Rado Zic; Zagreb/HR

» Oncologist’s perspective [MS 7a-5]
  Natalija Dedic Plavetic; Zagreb/HR

» Multidisciplinary case presentation and discussion [MS 7a-6]
  Gordana Ivanac; Zagreb/HR

Thursday, March 12, 14:00–15:30, Room K
MS 7b Liver transplantation in patients with hepatocellular carcinoma: a multidisciplinary approach

» Chairperson’s introduction [MS 7b-1]
  Ioana G. Lupescu; Bucharest/RO

» Surveillance of hepatocellular carcinoma in patients with cirrhosis and indications for liver transplantation: the gastroenterologist’s perspective [MS 7b-2]
  Liana Gheorghe; Bucharest/RO

» Imaging and interventional radiology in preoperative liver transplantation: from diagnosis to bridging [MS 7b-3]
  Radu Dumitru; Bucharest/RO

» The point of view of the surgeon: what the surgeon needs to know? [MS 7b-4]
  Irinel Popescu; Bucharest/RO

» Post-transplant complications: from diagnosis to treatment [MS 7b-5]
  Mugur Grasu; Bucharest/RO

» Multidisciplinary case presentation and discussion [MS 7b-6]
  Ioana G. Lupescu; Bucharest/RO

Friday, March 13, 16:00–17:30, Room G
MS 12a Revisiting screening for developmental dysplasia of the hip (DDH)

» Chairperson’s introduction [MS 12a-1]
  Karen Rosendahl; Bergen/NO

» The need for a standardised approach to US screening for DDH [MS 12a-2]
  Konstantinos Chlapoutakis; Iraklion/GR

» A paediatrician’s perspective on screening DDH: Swiss-Mongolian Paediatric Project [MS 12a-3]
  Thomas Baumann; Solothurn/CH

» A paediatric orthopaedist’s perspective: who, when and how to screen for DDH [MS 12a-4]
  Claudia Maizen; London/UK

» Panel discussion: How can we improve early detection of developmental dysplasia of the hip? [MS 12a-5]

Friday, March 13, 16:00–17:30, Room K
MS 12b Multidisciplinary team for epilepsy

» Chairperson’s introduction [MS 12b-1]
  Philippe Demaerel; Leuven/BE

» Clinical presentation and treatment options in epileptic disease [MS 12b-2]
  Andreas Schulze-Bonhage; Freiburg/DE

» Radiological workup in epilepsy: (functional) MRI [MS 12b-3]
  Horst Urbach; Freiburg/DE

» Stereotactic techniques [MS 12b-4]
  Volker Coenen; Freiburg/DE

» Image-guided epilepsy surgery [MS 12b-5]
  Juergen Beck; Freiburg/DE

» Multidisciplinary case presentation and discussion [MS 12b-6]
The Pros & Cons Session (PS) examines both sides of an argument when it comes to method and strategy, protocols, and clinical applications of a chosen controversial topic. Speakers first introduce their thoughts on the advantages of a particular area of radiology and then the conversation is opened up to the room, with the audience being able to express their own opinions through interactive electronic voting. The debate is orchestrated by a chairperson moderating the provocative questions and contrasting the views of the audience against those of the presenters.

Places are allocated on a first-come, first-served basis.

**Wednesday, March 11, 16:00–17:30, Room E**

**PS 427  Breast cancer: to screen or not to screen?**

- **Chairperson’s Introduction**  [PS 427-1]
  Fiona J. Gilbert; Cambridge/UK

- **A. The evidence for breast screening**  [PS 427-2]
  Mireille Broeders; Nijmegen/NL

- **B. The evidence against breast screening**  [PS 427-3]
  Philippe Autier; Dardilly/FR

- **Discussion**  [PS 427-4]

= Interactive session with electronic voting/self assessment
CLINICAL TRIALS IN RADIOLOGY

Straight from the Research Centre ...
... to the world’s most innovative imaging meeting

Watch and listen to the results at
ROOM Y (ENTRANCE LEVEL)

Wednesday to Friday
14:00–15:30

Details at
myESR.org/programme
Track: Clinical Trials in Radiology
The Transatlantic Course (TC) combines the resources of the ESR and RSNA (Radiological Society of North America) to present a series of sessions concentrated around a central topic. This year’s focus is ‘Stroke Imaging and Endovascular Treatment: Now and the Future’, with the sessions delving into the multifaceted considerations that go into current stroke imaging and treatment, as well as looking towards the innovations that can be expected in the coming years. The course incorporates the use of electronic voting to allow the audience to interact with the speakers and the information being discussed.

Places are allocated on a first-come, first-served basis.

Friday, March 13, 16:00–17:30, Room M 4

TC 1228  Current status of stroke workup and treatment

Moderators: Raman Uberoi; Oxford/UK  [TC 1228-M]
Achala Vagal; Cincinnati, OH/US  [TC 1228-M]

A. Current status of endovascular management of acute ischaemic stroke: evidence and guidelines  [TC 1228-1]
Raman Uberoi; Oxford/UK

B. CT-based evaluation of acute stroke: advantages and challenges  [TC 1228-2]
Achala Vagal; Cincinnati, OH/US

C. MRI-based evaluation of acute stroke: advantages and challenges  [TC 1228-3]
Max Wintermark; San Francisco, CA/US

» Panel discussion: Strategy for acute stroke imaging and intervention  [TC 1228-4]

Saturday, March 14, 08:30–10:00, Room M 4

TC 1328  Practical stroke imaging and mimics

Moderators: Jean-Pierre Pruvo; Lille/FR  [TC 1328-M]
Achala Vagal; Cincinnati, OH/US  [TC 1328-M]

A. Stroke mimics and “chameleons”: how to recognise them  [TC 1328-1]
Didier Leys; Lille/FR

B. Practical review of stroke imaging and triage: within six hours and beyond including wake-up strokes  [TC 1328-2]
Lotfi Hacein-Bey; Sacramento, CA/US

C. Interactive case discussion
Lotfi Hacein-Bey; Sacramento, CA/US  [TC 1328-3]
Didier Leys; Lille/FR  [TC 1328-4]

Saturday, March 14, 14:00–15:30, Room M 4

TC 1528  Endovascular treatment

Moderators: Jean-Pierre Pruvo; Lille/FR  [TC 1528-M]
Raman Uberoi; Oxford/UK  [TC 1528-M]

A. Endovascular treatment of acute ischaemic stroke: practical pearls  [TC 1528-1]
Ansgar Berlis; Augsburg/DE

B. Where to perform and how to organise thrombectomy  [TC 1528-2]
Jeremy Heit; Stanford, CA/US

C. Interactive discussion with illustrative cases of endovascular thrombectomy
Ansgar Berlis; Augsburg/DE  [TC 1528-3]
Jeremy Heit; Stanford, CA/US  [TC 1528-4]
Gregoire Boulouis; Paris/FR  [TC 1528-5]

Saturday, March 14, 16:00–17:30, Room M 4

TC 1628  The future strategy for stroke thrombectomy

Moderators: Jean-Pierre Pruvo; Lille/FR  [TC 1628-M]
Raman Uberoi; Oxford/UK  [TC 1628-M]
Achala Vagal; Cincinnati, OH/US  [TC 1628-M]

A. Addressing workforce needs: who and how to train specialists  [TC 1628-1]
Hans van Overhagen; Den Haag/NL

B. The future for stroke thrombectomy: what is next?  [TC 1628-2]
Mahesh V. Jayaraman; Providence, RI/US

C. New innovations in stroke thrombectomy techniques and technology  [TC 1628-3]
Klaus A. Haussegger; Klagenfurt/AT

= Interactive session with electronic voting/self assessment
EUROSAFE IMAGING SESSIONS

The EuroSafe Imaging Sessions highlight quality and safety aspects related to medical imaging with a focus on radiation protection and related research and regulatory requirements as well as their implementation.

Places are allocated on a first-come, first-served basis.
EUROSAFE IMAGING SESSIONS

Wednesday, March 11, 14:00–15:30, Room N

EU 3  Cumulative dose: too often and too much

» Chairpersons’ introduction
  Kimberly Applegate; Indianapolis, IN/US  [EU 3-1]
  Guy Frija; Paris/FR  [EU 3-2]

» Cumulative doses: an awareness problem  [EU 3-3]
  Jenia N. Vassileva; Vienna/AT

» Defining scenarios with a risk for cumulative dose  [EU 3-4]
  Franz Kainberger; Vienna/AT

» EuroSafe Imaging: opportunities to reduce cumulative doses in children  [EU 3-5]
  Rajia Seuri; Helsinki/FI

» Panel discussion: Next steps for reducing cumulative doses  [EU 3-6]
  This session is part of the EuroSafe Imaging campaign.

Wednesday, March 11, 16:00–17:30, Room N

EU 4a  Why do we need to know radiation doses in imaging procedures?

Moderator: Graciano Paulo; Coimbra/PT  [EU 4a-M]

» Chairperson’s introduction  [EU 4a-1]
  Eliseo Vaño; Madrid/ES

» Relevance of patient dose evaluation in the MEDIRAD project  [EU 4a-2]
  John Damilakis; Iraklion/GR

» Diagnostic reference levels in paediatrics  [EU 4a-3]
  Claudio Granata; Genoa/IT

» Diagnostic reference levels (DRLs) and image quality: the need to use clinical indication  [EU 4a-4]
  Efthathios Efthathopoulos; Alimos/GR

» Optimisation and radiation dose in medical imaging  [EU 4a-5]
  Roberto M. Sánchez Casanueva; Madrid/ES

» Panel discussion: What basic dosimetric information in medical imaging has to be known by the referrers, by the radiologists, and by the patients?  [EU 4a-6]
  This session is part of the EuroSafe Imaging campaign.

Wednesday, March 11, 16:00–17:00, Coffee & Talk 2

EU 4b  Building capacity and quality/safety awareness in Africa
  Jointly organised by EuroSafe Imaging and IAEA

Moderators: May Abdel Wahab; Vienna/AT (EU 4b-M)
  Shaukat Abdulrazak; Vienna/AT (EU 4b-M)
  Guy Frija; Paris/FR (EU 4b-M)

» Introduction
  Boris Brkljačić; Zagreb/HR  [EU 4b-1]
  Guy Frija; Paris/FR  [EU 4b-2]
  Shaukat Abdulrazak; Vienna/AT  [EU 4b-3]

» Strengthening radiology in Africa: the IAEA multifactorial approach  [EU 4b-4]
  Diana Paez; Vienna/AT

» IAEA policy in Africa  [EU 4b-5]
  Peter Johnston; Vienna/AT

» African Society of Radiology (ASR) expectations  [EU 4b-6]
  Tarek El-Diasty; Mansoura/EG

» EuroSafe Imaging Star concept in Africa  [EU 4b-7]
  Boudjema Mansouri; Algiers/DZ

» Introducing ESR iGuide Clinical Decision Support in Africa  [EU 4b-8]
  Dina Husseiny Salama; Cairo/EG
  Michael G. Kawooya; Kampala/UG  [EU 4b-9]

» EuroSafe Imaging: ISR vision for imaging in Africa  [EU 4b-10]
  Guy Frija; Paris/FR

» Discussion  [EU 4b-11]
  This session is part of the EuroSafe Imaging campaign.

Thursday, March 12, 16:00–17:30, Room N

EU 8  European study on clinical diagnostic reference levels (DRLs) (EUCLID) project: final results

Moderators: John Damilakis; Iraklion/GR  [EU 8-M]
  Guy Frija; Paris/FR  [EU 8-F]

» An overview of the EUCLID project  [EU 8-1]
  John Damilakis; Iraklion/GR

» EUCLID clinical DRLs values in CT and European comparisons  [EU 8-2]
  Virginia Tsapaki; Athens/GR

» EUCLID clinical DRLs values in interventional radiology and European comparisons  [EU 8-3]
  Werner R. Jaschke; Innsbruck/AT

» Implementation of clinical DRLs in practice: ask one centre  [EU 8-4]
  Sebastian T. Schindera; Aarau/CH

» The European Commission’s perspective  [EU 8-5]
  Georgi Simeonov; Luxembourg/LU

» Panel discussion: How can clinical DRLs be introduced into daily clinical routine?  [EU 8-6]
  This session is part of the EuroSafe Imaging campaign.
EUROSAFE IMAGING SESSIONS

**13 March**
**Friday, March 13, 16:00–17:30, Room N**

**EU 12**  
Dose reduction in quantitative single- and multi-energy computed tomography

- **Chairpersons’ introduction**
  - Sebastian T. Schindera; Aarau/CH  [EU 12-1]
  - Wolfram Stiller; Heidelberg/DE  [EU 12-2]
- **Dual- and multi-energy CT: physical background and concepts**
  - Peter B. Noël; Philadelphia, PA/US  [EU 12-3]
- **Spectral photon-counting CT: technical concepts for quantitative multi-energy imaging and dose reduction**
  - Loic Boussel; Lyon/FR  [EU 12-4]
- **Effects of dose reduction on quantitative analyses of chest CT**
  - Jin Mo Goo; Seoul/KR  [EU 12-5]
- **Perfusion CT as quantitative imaging biomarker in acute ischaemic stroke and brain trauma: what about the dose?**
  - Ilan Shelef; Beer Sheva/IL  [EU 12-6]
- **Panel discussion: Which role does quantitative single- and multi-energy computed tomography play in daily practice, and is it compatible with dose reduction?**
  - [EU 12-7]

This session is part of the EuroSafe Imaging campaign.

**14 March**
**Saturday, March 14, 08:30–10:00, Room N**

**EU 13**  
Paediatric CT doses and risks (MEDIRAD)

- **Moderator:** Isabelle Thierry-Chef; Barcelona/ES  [EU 13-M]
- **Chairperson's introduction**
  - John Damilakis; Iraklion/GR  [EU 13-1]
- **The use of CT in paediatrics: examination frequencies and common practices**
  - Magnus Kajser; Stockholm/SE  [EU 13-2]
- **CT dosimetry in children: patient-specific dosimetry and dose reduction tools**
  - John Damilakis; Iraklion/GR  [EU 13-3]
- **Radiation exposure from CT in childhood and subsequent risk of haematological malignancies, brain and other cancers**
  - Isabelle Thierry-Chef; Barcelona/ES  [EU 13-4]
- **Risk communication and risk optimisation**
  - Claudio Granata; Genoa/IT  [EU 13-5]
- **Panel discussion: Radiation safety in paediatric CT: what are the challenges?**
  - [EU 13-6]

This session is part of the EuroSafe Imaging campaign.

**14 March**
**Saturday, March 14, 16:00–17:30, Room N**

**EU 16**  
Technology developments which impact dose delivery

- **Chairpersons’ introduction:**
  - Setting the scene of modern technology for exposure efficient medical imaging  [EU 16-1]
  - Guy Frija; Paris/FR  [EU 16-2]
- **Overarching technological developments for producing x-rays in medical imaging for reducing dose**
  - Christoph Hoeschen; Magdeburg/DE  [EU 16-3]
- **Applying algorithmic approaches for efficient imaging technologies**
  - Magdalena Rafecas; Lübeck/DE  [EU 16-4]
- **Optimising radiation efficiency in interventional imaging**
  - Maciej Pech; Magdeburg/DE  [EU 16-5]
- **New concepts for dose determination for staff and patients, and its importance for optimisation**
  - Lara Struelens; Mol/BE  [EU 16-6]
- **Panel discussion: Future chances for radiation protection by efficient use of technological developments**
  - [EU 16-7]

This session is part of the EuroSafe Imaging campaign.

**15 March**
**Sunday, March 15, 10:30–12:00, Room N**

**EU 18**  
Artificial intelligence for dose optimisation

- **Moderator:** Mika Kortesniemi; Helsinki/FI  [EU 18-M]
- **Chairperson’s introduction**
  - Melanie Fachet; Magdeburg/DE  [EU 18-1]
- **Technology using AI for radiation protection**
  - Mika Kortesniemi; Helsinki/FI  [EU 18-2]
- **What is the limit of dose reduction by artificial intelligence methods: 2D and 3D?**
  - Christoph Hoeschen; Magdeburg/DE  [EU 18-3]
- **Chances and limitations of AI for nuclear medical imaging**
  - Lara Struelens; Mol/BE  [EU 18-4]
- **Panel discussion: Towards AI for dose optimisation in medical imaging: where are we using it in clinical practice?**
  - [EU 18-5]

This session is part of the EuroSafe Imaging campaign.
Tuesday, March 11, 09:00–10:00, Coffee & Talk 2

C 9  Radiation protection: more opportunities than risks
Organised by EuroSafe Imaging

» Chairpersons' introduction
Guy Frija; Paris/FR  [C 9-1]
Ivana Kralik; Zagreb/HR  [C 9-2]

» What is the ideal referral that we wish to receive?
Adrian Brady; Cork/IE  [C 9-3]

» Very low dose: a paradigm shift in radiation protection?
Reinhard W.R. Loose; Nuremberg/DE  [C 9-4]

» Defensive medicine: how to avoid inappropriate “rule-out” referrals
Franz Kainberger; Vienna/AT  [C 9-5]

» Open forum discussion  [C 9-6]

Tuesday, March 11, 11:00–12:00, Coffee & Talk 2

C 10  Quality and safety in paediatric imaging
Organised by EuroSafe Imaging

» Chairpersons' introduction
Claudio Granata; Genoa/IT  [C 10-1]
Donald P. Frush; Durham, NC/US  [C 10-2]

» Radiation protection in the neonatal intensive care unit
Sergio Salerno; Palermo/IT  [C 10-3]

» Optimising protocol parameters in paediatric conventional radiology and CT
Erich Sorantin; Graz/AT  [C 10-4]

» Understanding dose indices and exposure indicators in digital radiography
Raija Seuri; Helsinki/FI  [C 10-5]

» Open forum discussion  [C 10-6]

Wednesday, March 12, 08:30–09:30, Coffee & Talk 2

C 12  Using CT in asymptomatic people: are we doing more harm than good?
Jointly organised by WHO and EuroSafe Imaging

» Chairperson's introduction  [C 12-1]
Maria del Rosario Perez; Geneva/CH

» Setting the scene  [C 12-2]
Guy Frija; Paris/FR

» Individual health assessment (IHA) in the regulations
Jürgen Griebel; Neuharmberg/DE  [C 12-3]

» The Korean experience regarding IHA
Min-Jeong Kim; Seoul/KR  [C 12-4]

» Open forum discussion  [C 12-5]
Maria del Rosario Perez; Geneva/CH

Wednesday, March 12, 12:45–13:45, Coffee & Talk 2

C 13  ESR iGuide: more appropriate imaging through clinical decision support
Organised by EuroSafe Imaging

» Chairperson's introduction: Update on Croatia adoption  [C 13-1]
Boris Brkljačić; Zagreb/HR

» Medical imaging decision and support study (MIDAS)  [C 13-2]
Thomas J. Kroencke; Augsburg/DE

» ESR iGuide implementation in Saudi Arabia  [C 13-3]
Faiz Garni; Riyadh/SA

» ESR guideline localisation and version upgrade experience  [C 13-4]
Henriettæ Ståhlbrandt; Eksjö/SE

» Open forum discussion  [C 13-5]

Thursday, March 12, 16:00–17:00, Coffee & Talk 2

C 14  Clinical audit and the European-Basic Safety Standards (EU-BSS): where are we now?
Organised by the ESR Subcommittee on Audit and Standards

» Chairperson's introduction  [C 14-1]
David C. Howlett; Eastbourne/UK

» Clinical audit: EU-BSS uptake, the ESR perspective  [C 14-2]
Adrian Brady; Cork/IE

» Clinical audit: EU-BSS uptake, the regulator perspective  [C 14-3]
Alexandra Karoussou-Schreiner; Luxembourg/LU

» Case example: clinical audit template  [C 14-4]
Tanja Holter; Oslo/NO

» Open forum discussion: To discuss the potential for future pan European projects  [C 14-5]
EUROSAFE IMAGING

SESSIONS

FRIDAY, MARCH 13, 08:30–09:30, COFFEE & TALK 2

C 15  ESR and EuroSafe Imaging initiatives: improving justification 
Organised by EuroSafe Imaging

» Chairperson’s introduction
Guy Frija; Paris/FR  [C 15-1]

» Audit and Standards Subcommittee’s published surveys  [C 15-2]
David C. Howlett; Eastbourne/UK

» Overview of justification processes following previous HERCA initiatives and potential new ones  [C 15-3]
Alexandra Karoussou-Schreiner; Luxembourg/LU

» Giving a practical, on the ground view of how justification is handled on a day-to-day basis  [C 15-4]
András Palkó; Szeged/HU

» Activities undertaken during 2019/20 to assess and improve matters  [C 15-5]
Guy Frija; Paris/FR

» Open forum discussion  [C 15-6]

C 16  Dose management (DM): requirements, promises and reality 
Organised by EuroSafe Imaging

» Chairperson’s introduction  [C 16-1]
Reinhard W.R. Loose; Nuremberg/DE

» DICOM image and radiation dose structured report (RDSR) dose parameters: what do we have, what do we need?  [C 16-2]
Eliseo Vaño; Madrid/ES

» Workflow of dose management in the context of PACS, RIS, HIS, IHE  [C 16-3]
Peter Mildenberger; Mainz/DE

» Requirements on dose management system in terms of dose storage, processing, reporting, tracking, quality assurance and the directive EU-BSS 2013/59  [C 16-4]
Sebastian T. Schindera; Aarau/CH

» Experiences in practice between vendor promises and clinical reality  [C 16-5]
Virginia Tsapaki; Athens/GR

SATURDAY, MARCH 14, 08:30–09:30, COFFEE & TALK 2

C 17  International Society of Radiology (ISR) call for action on quality and safety 
Organised by EuroSafe Imaging

Moderators: Donald P. Frush; Durham, NC/US  [C 17-M]
Guy Frija; Paris/FR  [C 17-M]

» Introduction to the concept of the International Atomic Energy Agency (IAEA) Bonn Call for Action  [C 17-1]
Ola Holmberg; Vienna/AT

» The World Health Organisation (WHO) vision  [C 17-2]
Maria del Rosario Perez; Geneva/CH

» The Middle East vision  [C 17-3]
Sarah Hagi Albahiti; Jeddah/SA

» The African vision  [C 17-4]
Tarek El-Diasty; Mansoura/EG

» The Chinese vision  [C 17-5]
Zhengyu Jin; Beijing/CN

» Open forum discussion  [C 17-6]

C 18  EuroSafe meets ArabSafe 
Organised by EuroSafe Imaging

» Chairpersons’ introduction
Guy Frija; Paris/FR  [C 18-1]
Boudjema Mansouri; Algiers/DZ  [C 18-2]

» EuroSafe Imaging campaign: is the EuroSafe Imaging Call for Action relevant for ArabSafe?  [C 18-3]
Guy Frija; Paris/FR

» ArabSafe campaign: which are the most important challenges in implementing radiation protection?  [C 18-4]
Boudjema Mansouri; Algiers/DZ

» Use case in Saudi Arabia. Presentation of the first Saudi National DRLs for CT in adults and children: implementation plan and the effect of the implementation of dose monitoring in mammography screening practice in Saudi Arabia  [C 18-5]
Sarah Hagi Albahiti; Jeddah/SA

» Use case in Egypt  [C 18-6]
Dina Husseiny Salama; Cairo/EG

» Open forum discussion  [C 18-7]
Visit the EPOS area on LEVEL 1
or epos.myESR.org
to browse through thousands
of posters.
The E³ programme emphasises the importance of lifelong learning. It covers the entire range of educational issues, from undergraduate medical education to subspecialised continuing professional development. The E³ programme is structured according to the different levels defined by the European Training Curriculum for Radiology. The E³ programme consists of the following five branches, each reflecting the different levels of education in radiology, as well as the different stages of an individual’s professional career:

- **Rising Stars Programme**
- **European Diploma Prep Sessions**
- **The Beauty of Basic Knowledge**
- **Advance Courses**
- **ECR Master Classes**
| **Target groups** | - Trainees  
|                  | - Radiologists |
| **Formats**      | - Courses  
|                  | - EDiR preparation courses  
|                  | - Professorships  
|                  | - Tutorials  
|                  | - Scholarships  
|                  | - Fellowships |
| **Location**     | - Worldwide |
| **Methods**      | - Face-to-Face  
|                  | - Online |

Learn more about ESOR activities in the **ESOR Lounge**, second Level, Foyer B, next to room B!
The E³ Rising Stars Programme is tailored for residents, students, radiographers, and trainee radiographers, designed specifically to offer a variety of essential knowledge. An assortment of sessions ensures a thorough examination of the topics, including Basic Sessions organised by ESR, ESOR and EFRS, Case-Based Diagnosis Training Sessions, Student Sessions, and the Radiology Trainees Forum Programme including the RTF Highlighted Lectures and the entertaining RTF Quiz.

Places are allocated on a first-come, first-served basis.
E³ – RISING STARS PROGRAMME

BASIC SESSIONS

Special sessions suitable for residents, students, radiographers and radiographers-in-training

11 March
Wednesday, March 11, 08:30-10:00, Room M 4

BS 1  Radiologic anatomy: abdomen
Organised by ESOR

Moderator: Sofia Gourtsoyianni; Athens/GR  [BS 1-M]

» Small bowel  [BS 1-1]
  Stuart A. Taylor; London/UK

» Anorectal  [BS 1-2]
  András Palkó; Szeged/HU

» Peritoneum and mesentery  [BS 1-3]
  Panos K. Prassopoulos; Thessaloniki/GR

11 March
Wednesday, March 11, 10:30-12:00, Room E

BS 2  Radiologic anatomy: chest
Organised by ESOR

Moderator: Fabian Rengier; Heidelberg/DE  [BS 2-M]

» Mediastinal  [BS 2-1]
  Mariaelena Occhipinti; Florence/IT

» Lungs  [BS 2-2]
  Cornelia M. Schaeffer-Prokop; Amersfoort/NL

» Vasculature  [BS 2-3]
  Iva Žuža; Rijeka/HR

11 March
Wednesday, March 11, 14:00-15:30, Room E

BS 3  Musculoskeletal: essentials of trauma imaging
Organised by ESOR

Moderator: Alberto S. Vieira; Porto/PT  [BS 3-M]

» Fractures and dislocations in the extremities  [BS 3-1]
  Reto Sutter; Zurich/CH

» Acetabular fractures demystified  [BS 3-2]
  Ustun Aydingoz; Ankara/TR

» Cervical spine trauma  [BS 3-3]
  Peter J. MacMahon; Dublin/IE

12 March
Thursday, March 12, 08:30-10:00, Room M 3

BS 5b  Career opportunities for radiographers
Organised by the EFRS

Moderator: Jonathan McNulty; Dublin/IE  [BS 5b-M]

» The specialised paediatric radiographer  [BS 5b-1]
  Jenny Gårdeing; Lund/SE

» Radiographers in ultrasound  [BS 5b-2]
  Gill Harrison; London/UK

» The radiation protection officer  [BS 5b-3]
  Edward Grupetta; Msida/MT

» Panel discussion: Things to consider when starting your career  [BS 5b-4]

12 March
Thursday, March 12, 16:00-17:30, Room B

BS 8  Genitourinary

Moderator: Lorenzo E. Derchi; Genoa/IT  [BS 8-M]

» Adrenal pathologies  [BS 8-1]
  Marek Stajgis; Poznan/PL

» Prostate cancer  [BS 8-2]
  Bernd Hamm; Berlin/DE

» Foetal MRI  [BS 8-3]
  Daniela Prayer; Vienna/AT

13 March
Friday, March 13, 08:30-10:00, Room B

BS 9a  Radiologic anatomy: head and neck
Organised by ESOR

Moderator: Minerva Becker; Geneva/CH  [BS 9a-M]

» Neck spaces  [BS 9a-1]
  Nikolalet I. Traykova; Plovdiv/BG

» Temporal bone  [BS 9a-2]
  Jan Walther Casselman; Bruges/BE

» Larynx  [BS 9a-3]
  Roberto Maroldi; Brescia/IT

13 March
Friday, March 13, 08:30-10:00, Room M 1

BS 9b  Bone health and osteoporosis imaging
Organised by the EFRS

Moderator: Jean-Philippe Dillenseger; Strasbourg/FR  [BS 9b-M]

» Osteoporosis: epidemiology, risk factors, and screening  [BS 9b-1]
  Karen Knapp; Exeter/UK

» Dual-energy x-ray absorptiometry and other modalities  [BS 9b-2]
  Rogério Lopes; Vila Nova de Foz Côa/PT

» Opportunities for radiographers in bone health  [BS 9b-3]
  Eilish McDermott; Dublin/IE

» Panel discussion: How can we further develop the radiographers' role in osteoporosis imaging?  [BS 9b-4]
## E³ – RISING STARS PROGRAMME

### BASIC SESSIONS

*Special sessions suitable for residents, students, radiographers and radiographers-in-training*

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<tr>
<th>Date</th>
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<td><strong>Friday</strong></td>
<td><strong>March 13, 16:00–17:30, Room F2</strong></td>
<td>BS 12</td>
<td>Vascular: US and vascular disease</td>
<td>ECR 2020</td>
<td>Jens Bremerich; Basle/CH (BS 12-M)</td>
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<td>» Abdominal aorta (BS 12-1) [BS 12-M]</td>
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<td>Dirk André Clevert; Munich/DE</td>
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<td>» Upper and lower limb: arterial (BS 12-2) [BS 12-M]</td>
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<td>Eugen Divjak; Zagreb/HR</td>
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<td>» Lower limb: venous (BS 12-3)</td>
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<td>Sorin M. Dudea; Cluj-Napoca/RO</td>
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| **14 March** | **Saturday** | **March 14, 14:00–15:30, Room F2** | BS 15a  | Hybrid imaging                                                                 | ECR 2020                  | Umar Mahmood; Charlestown, MA/US (BS 15a-M)                                      |
|             |             |                                  |          | » Clinical applications of hybrid imaging (BS 15a-1)                        |                            | Katrine Riklund; Umea/SE                                                          |
|             |             |                                  |          | » Hybrid imaging: thorax (BS 15a-2)                                         |                            | Deena Neriman; London/UK                                                         |
|             |             |                                  |          | » Hybrid imaging: abdomen and pelvis (BS 15a-3)                             |                            | Sergios Gatidis; Tübingen/DE                                                     |

| **14 March** | **Saturday** | **March 14, 14:00–15:30, Room M 1** | BS 15b  | Radiographer research: tips to get you started | ECR 2020                  | Gerold Unterhumer; Vienna/AT (BS 15b-M)                                         |
|             |             |                                  |          | » Undertaking a systematic review (BS 15b-1)                                |                            | Luis J.O.C. Lança; Lisbon/PT                                                      |
|             |             |                                  |          | » Planning and undertaking interviews (BS 15b-2)                            |                            | Michaela Davis; Dublin/IE                                                       |
|             |             |                                  |          | » Conducting survey-based research (BS 15b-3)                               |                            | Anetta Bolejko; Malmo/SE                                                       |
|             |             |                                  |          | » Panel discussion: Research mentorship: getting help from the experts (BS 15b-4) |                            |                                                                                  |

| **15 March** | **Saturday** | **March 15, 14:00–15:30, Room M 3** | BS 16    | The importance of good patient positioning in imaging | ECR 2020                  | Anke Ohmstede; Oldenburg/DE (BS 16-M)                                           |
|             |             |                                  |          | » Positioning tips and tricks for musculoskeletal radiography (BS 16-1)    |                            | Janni Jensen; Odense/DK                                                          |
|             |             |                                  |          | » Positioning tips and tricks for CT (BS 16-2)                              |                            | Ronald Boob; Rotterdam/NL                                                        |
|             |             |                                  |          | » Positioning tips and tricks for MRI (BS 16-3)                             |                            | Christina Malamatieniu; London/UK                                                 |
|             |             |                                  |          | » Panel discussion: The importance of patient positioning: do we have to go back to basics? (BS 16-4) |                            |                                                                                  |

| **15 March** | **Sunday**  | **March 15, 08:30–10:00, Room M 3** | BS 17    | Communication as a safety tool | ECR 2020                  | Adelino Santos; Coimbra/PT (BS 17-M)                                             |
|             |             |                                  |          | » The relevance of patient communication (BS 17-1)                          |                            | Uffe L. W. Jakobsen; Odense/DK                                                   |
|             |             |                                  |          | » Communication of radiation risk (BS 17-2)                                 |                            | Jonathan Portelli; Msida/MT                                                      |
|             |             |                                  |          | » Radiographers as communication role models (BS 17-3)                      |                            | Dieuwertje Toonen-Bok; Groningen/NL                                              |
|             |             |                                  |          | » Panel discussion: Communication as a tool to improve the patient experience: how can we build an effective communication culture? (BS 17-4) |                            |                                                                                  |

| **15 March** | **Sunday**  | **March 15, 10:30–12:00, Room B**  | BS 18    | Cardiathoracic emergencies | ECR 2020                  | Adrian Santa; Sibiu/RO (BS 18-M)                                                 |
|             |             |                                  |          | » Acute aortic syndrome (BS 18-1)                                           |                            | Tomasz Jargiello; Lublin/PL                                                      |
|             |             |                                  |          | » Pulmonary embolism (BS 18-2)                                              |                            | Ioannis Vlahos; Houston, TX/US                                                    |
|             |             |                                  |          | » Acute coronary syndrome (BS 18-3)                                          |                            | Ricarda M.M. Hinzpeter; Zurich/CH                                                 |
**CASE-BASED DIAGNOSIS TRAINING**
Special programme for residents and general radiologists

**RADIOLOGY TRAINEES FORUM PROGRAMME**

**Case-Based Diagnosis Training**

**Case-Based Diagnosis Training**

**Moderators:**
- Liver [CB-1]: Filipe Caseiro Alves; Coimbra/PT
- Neuro [CB-2]: Daniela Prayer; Vienna/AT
- Musculoskeletal [CB-3]: Franz Kainberger; Vienna/AT
- Maxillofacial [CB-4]: Soraya Robinson; Vienna/AT
- Genitourinary [CB-5]: Michael Toepker; Vienna/AT
- Interlude: Air in the wrong place [CB-6]: Burçe Ozgen Mocan; Chicago, IL/US
- Head and neck [CB-7]: Christian Czerny; Vienna/AT
- Chest [CB-8]: Helmut Prosch; Vienna/AT
- Spine [CB-9]: Klaus M. Friedrich; Vienna/AT
- Gastrointestinal [CB-10]: Wolfgang Schima; Vienna/AT
- Breast [CB-11]: Michael H. Fuchsjäger; Graz/AT

**3 March Sunday, March 15, 10:15–12:15, Room E**

**Interactive session with electronic voting/self assessment**

**Highlight Lectures**

**Moderators:**
- Imaging of knee in sports injuries [TF-1]: Žiga Snoj; Ljubljana/SI
- Benign lesions in head and neck: what is really benign? [TF-2]: Roberto Maroldi; Brescia/IT
- Bone lesions: an integrated approach [TF-3]: Victor N. Cassar-Pullicino; Oswestry/UK

**3 March Friday, March 13, 16:00–17:30, Room M 3**

**RTF Quiz Beating heart of radiology**

**Quiz-Masters:**
- Marco Francone; Rome/IT [RTF Quiz-1]
- Christian Loewe; Vienna/AT [RTF Quiz-2]
E³ EUROPEAN DIPLOMA PREP SESSIONS

The E³ European Diploma Prep Sessions provide a foundation for future European Diploma in Radiology (EDiR) candidates. The information conveyed in these sessions is also relevant to those preparing for national board examinations, or anyone interested in gaining a comprehensive overview of subjects relating to medical imaging. The topics are defined by the European Training Curriculum (ETC), and the sessions are held in close cooperation with the European Board of Radiology (EBR).

Places are allocated on a first-come, first-served basis.
**E³ – EUROPEAN DIPLOMA PREP SESSIONS**

**Wednesday, March 11, 08:30–10:00, Room K**

**E³ 123 Paediatric**

- **Chairperson’s introduction** *(E³ 123-1)*
  Jean-François Chateil; Bordeaux/FR
- **Paediatric neuro imaging** *(E³ 123-2)*
  Maria I. Argyropoulou; Ioannina/GR
- **Paediatric chest imaging** *(E³ 123-3)*
  Catherine Owens; Doha/QA
- **Paediatric abdominal imaging** *(E³ 123-4)*
  Tom Watson; London/UK

**Wednesday, March 11, 14:00–15:30, Room K**

**E³ 323 Interventional**

- **Chairperson’s introduction** *(E³ 323-1)*
  José Ignacio Bilbao; Pamplona/ES
- **Basic principles of angiography and image-guided interventions** *(E³ 323-2)*
  Nino Tičinović; Zagreb/HR
- **Image-guided interventions in oncology** *(E³ 323-3)*
  Tiago Bilhim; Lisbon/PT
- **Vascular interventions** *(E³ 323-4)*
  Dimitrij Kuhelj; Ljubljana/SI

**Thursday, March 12, 08:30–10:00, Room K**

**E³ 523 Head and neck**

- **Chairperson’s introduction** *(E³ 523-1)*
  Martin G. Mack; Munich/DE
- **Temporal bone and skull base** *(E³ 523-2)*
  Agnieszka Trojanowska; Lublin/PL
- **Nose, paranasal sinuses and nasopharynx** *(E³ 523-3)*
  Frank A. Pameijer; Utrecht/NL
- **Oral cavity, oropharynx, hypopharynx and larynx** *(E³ 523-4)*
  Minerva Becker; Geneva/CH

**Saturday, March 14, 08:30–10:00, Room K**

**E³ 1323 Urogenital**

- **Chairperson’s introduction** *(E³ 1323-1)*
  Vibeke Logager; Copenhagen/DK
- **Renal and adrenal imaging** *(E³ 1323-2)*
  Nicolas Grenier; Bordeaux/FR
- **Imaging of the ureter and bladder** *(E³ 1323-3)*
  Mustafa Secil; Izmir/TR
- **Prostate imaging** *(E³ 1323-4)*
  Harriet C. Thoeny; Fribourg/CH

**Saturday, March 14, 14:00–15:30, Room K**

**E³ 1523 Cardiac and vascular**

- **Chairperson’s introduction** *(E³ 1523-1)*
  Karl-Friedrich Kreitner; Mainz/DE
- **Cardiovascular imaging: the basics** *(E³ 1523-2)*
  Riccardo Marano; Rome/IT
- **Cardiovascular imaging: valves, endocardium and aorta** *(E³ 1523-3)*
  Christian Loewe; Vienna/AT
- **Cardiovascular imaging: myocardium and pericardium** *(E³ 1523-4)*
  Jan Bogaert; Leuven/BE

**Sunday, March 15, 08:30–10:00, Room K**

**E³ 1723 Gynaecology and obstetrics**

- **Chairperson’s introduction** *(E³ 1723-1)*
  Monika Bekiesinska-Figatowska; Warsaw/PL
- **Imaging of the uterus** *(E³ 1723-2)*
  Rahel A. Kubik-Huch; Baden/CH
- ** Disorders of the adnexa** *(E³ 1723-3)*
  Rosemarie Forstner; Salzburg/AT
- **Acute gynaecological and obstetric disorders** *(E³ 1723-4)*
  Gabriele Masselli; Rome/IT
The E³ Beauty of Basic Knowledge Sessions offers participants the chance to refresh their knowledge in fundamental topics of imaging. Structured around a case-based approach, these sessions are a return to traditional education wherein experienced teachers share insights from their field of expertise while incorporating interaction from the audience. This year, the Beauty of Basic Knowledge sessions focus on the areas of the breast and pancreas, allowing anyone from new residents to board-certified radiologists to strengthen their understanding in these essentials of radiology.

Places are allocated on a first-come, first-served basis.
## E3 – THE BEAUTY OF BASIC KNOWLEDGE

### BREAST

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<th>Level</th>
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<td>Karen Kinkel; Chêne-Bougeries/CH [E3 24A-M]</td>
<td>Differences in mammography techniques and image analysis [E3 24A-2]</td>
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<td>Anne Tardivon; Paris/FR</td>
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<tr>
<td>12 March</td>
<td>Thursday, 12:45–13:45</td>
<td>B</td>
<td>E3 24B</td>
<td>Basis of breast ultrasound and multimodality readings</td>
<td>LEVEL</td>
<td>Panagiotis Kapetas; Vienna/AT</td>
<td>Practical ultrasound of the breast: how I do it [E3 24B-1]</td>
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<td>Karen Kinkel; Chêne-Bougeries/CH [E3 24B-M]</td>
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<td>Alexandra Athanasiou; Athens/GR</td>
<td>Integrating ultrasound findings into the final mammography report [E3 24B-2]</td>
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<td>13 March</td>
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<td>E3 24C</td>
<td>Basics of breast MRI</td>
<td>LEVEL</td>
<td>Julia Camps Herrero; Valencia/ES</td>
<td>When is breast MRI indicated and what protocol to use? [E3 24C-1]</td>
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<td>Karen Kinkel; Chêne-Bougeries/CH [E3 24C-M]</td>
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<td>Ritse M. Mann; Nijmegen/NL</td>
<td>How to read breast MRI [E3 24C-2]</td>
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<td>Karen Kinkel; Chêne-Bougeries/CH [E3 24D-M]</td>
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<td>Mary C. Mahoney; Cincinnati, OH/US</td>
<td>When and how to biopsy under mammographic guidance? [E3 24D-2]</td>
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<td>Dragana Djilas-Ivanovic; Sremka Kamenica/RS</td>
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<td>Pascal A.T. Baltzer; Vienna/AT</td>
<td>When and how to biopsy under MRI guidance? [E3 24D-3]</td>
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<td>15 March</td>
<td>Sunday, 08:30–09:30</td>
<td>B</td>
<td>E3 24E</td>
<td>How to deal with common clinical breast symptoms</td>
<td>LEVEL</td>
<td>Gábor Forrai; Budapest/HU</td>
<td>The acute painful breast [E3 24E-1]</td>
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<td>Karen Kinkel; Chêne-Bougeries/CH [E3 24E-M]</td>
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<td>Mihai Lesaru; Bucharest/RO</td>
<td>How to manage nipple discharge [E3 24E-2]</td>
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<td>Isabelle Thomassin-Naggara; Paris/FR</td>
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<td>Thomas Boilen; Nieuwegein/NL</td>
<td>Role of imaging [E3 25A-2]</td>
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<td>C</td>
<td>E3 25B</td>
<td>Chronic pancreatitis</td>
<td>LEVEL</td>
<td>Celso Matos; Lisbon/PT</td>
<td>How to diagnose and classify [E3 25B-1]</td>
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<td>Giulia Zamboni; Verona/IT</td>
<td>Functional evaluation of chronic pancreatitis [E3 25B-2]</td>
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<td>13 March</td>
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<td>E3 25C</td>
<td>Cystic neoplasms</td>
<td>LEVEL</td>
<td>Thomas C. Lauenstein; Düsseldorf/DE</td>
<td>Intraductal papillary neoplasms [E3 25C-1]</td>
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<td>Stephen Skehan; Dublin/IE</td>
<td>Other cystic pancreatic neoplasms [E3 25C-2]</td>
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<td>Marc Zins; Paris/FR</td>
<td>Staging [E3 25D-2]</td>
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<td>Nikolas Kartalis; Stockholm/SE</td>
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<td>15 March</td>
<td>Sunday, 08:30–09:30</td>
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<td>E3 25E</td>
<td>Pancreatic adenocarcinoma mimickers</td>
<td>LEVEL</td>
<td>Riccardo Negrelli; Verona/IT</td>
<td>Autoimmune pancreatitis [E3 25E-1]</td>
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<td>Riccardo Manfredi; Rome/IT</td>
<td>Paraduodenal pancreatitis [E3 25E-2]</td>
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</table>
The E³ Advanced Courses are a series of sessions spanning across multiple days of the congress that delve into specific aspects of radiology. This year covers subjects not only of great interest, but also great relevance, including artificial intelligence and improvements in cardiothoracic imaging. A light is shone on the hot topics in emergency radiology and GU cancer, and the always engaging interactive teaching sessions will again be available. Conducted by specialists in their discipline, the various sessions within each course demonstrate the multiple facets of these topics while complementing one another to provide an in-depth exploration of the respective field.

Places are allocated on a first-come, first-served basis.
E3 – ADVANCED COURSES

HOT TOPICS IN EMERGENCY RADIOLOGY

11 March
Wednesday, March 11, 10:30–12:00, Room M 2
E3 218 Pregnancy and postpartum abdominal acute conditions

» Chairperson’s introduction [E3 218-1]
  Marcela De La Hoz Polo; London/UK
A. The acute abdomen in pregnancy [E3 218-2]
  Marcia C. Javitt; Haifa/IL
B. Acute postpartum conditions [E3 218-3]
  Ali Devrim Karaosmanoglu; Ankara/TR
C. Interventional radiology in postpartum haemorrhage [E3 218-4]
  Rafiuddin Patel; Oxford/UK

11 March
Wednesday, March 11, 14:00–15:30, Room M 2
E3 318 Assessing neurological complications and brain death in ICU patients

» Chairperson’s introduction [E3 318-1]
  Cem Calli; Izmir/TR
A. CT and MRI in neurologically impaired ICU patients [E3 318-2]
  Frederick J.A. Meijer; Nijmegen/NL
B. Brain death evaluation [E3 318-3]
  Oleg Bronov; Moscow/RU
C. Imaging of potential organ donors [E3 318-4]
  Stefan Roosendaal; Amsterdam/NL
» Panel discussion: Combined imaging of brain death and organ donation: is this feasible? [E3 318-5]

11 March
Wednesday, March 11, 16:00–17:30, Room M 2
E3 418 Non-neurological complications in intensive care patients

» Chairperson’s introduction [E3 418-1]
  Marc-André Weber; Rostock/DE
A. The white chest and severe dyspnoea [E3 418-2]
  Miroslav Herman; Olomouc/CZ
B. Acute abdominal complications [E3 418-3]
  Mariano Scaglione; Castel Voleto/IT
C. Image-guided interventions in ICU patients [E3 418-4]
  Liat Appelbaum; Jerusalem/IL

12 March
Thursday, March 12, 08:30–10:00, Room M 2
E3 518 The role of radiology in the management of mass casualty incidents

» Chairperson’s introduction [E3 518-1]
  Ana Blanco Barrio; Murcia/ES
A. Before the disaster: preparations and standards [E3 518-2]
  Fabian G. Mück; Munich/DE
B. CT findings of mass casualty incidents, terror attacks and assaults [E3 518-3]
  Elizabeth Dick; London/UK
C. The role of interventional radiology in mass casualty incidents [E3 518-4]
  Allan Bloom; Jerusalem/IL

12 March
Thursday, March 12, 16:00–17:30, Room M 2
E3 818 Occlusive vascular diseases: no time to lose!

» Chairperson’s introduction [E3 818-1]
  Raffaella Basilico; Chieti/IT
A. Acute stroke: CT and MRI findings [E3 818-2]
  Katarzyna Katulska; Poznan/PL
B. Acute chest pain [E3 818-3]
  Hatem Alkadhi; Zurich/CH
C. Acute mesenteric ischaemia [E3 818-4]
  Marc Zins; Paris/FR
D. Interventional radiology in acute mesenteric ischaemia [E3 818-5]
  Antonín Krajina; Hradec Kralove/CZ

13 March
Friday, March 13, 14:00–15:30, Room M 2
E3 1118 Dual-energy and subtraction CT in emergency radiology

» Chairperson’s introduction [E3 1118-1]
  Stefan Wirth; Munich/DE
A. Blood and bleeding [E3 1118-2]
  Monique Brink; Nijmegen/NL
B. The usual suspects: urogenital and musculoskeletal [E3 1118-3]
  Roman Guggenberger; Zurich/CH
C. Dual-energy CT in acute emergency conditions in the abdomen and pelvis [E3 1118-4]
  Jacob Sosna; Jerusalem/IL

= Interactive introduction with electronic voting/self assessment
# Educational and Scientific Programme

## E³ – ADVANCED COURSES

### HOW TO IMPROVE YOUR EXPERTISE IN CARDIOTHORACIC IMAGING

<table>
<thead>
<tr>
<th>Date</th>
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<th>Chairperson's introduction</th>
<th>Presenters</th>
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<tbody>
<tr>
<td>13 March</td>
<td>Friday, 08:30-10:00</td>
<td>M 2</td>
<td>E³ 919 Low-dose thoracic CT: only screening for lung cancer?</td>
<td>Nigel Howarth, Chêne-Bougeries/CH</td>
<td>A. Overview of lung cancer screening activities in European countries</td>
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<td>Stefan Diederich, Düsseldorf/DE</td>
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<td>B. Lung nodule management</td>
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<td>C. Coronary artery disease assessment as part of a lung cancer screening</td>
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<td>programme: how to do it?</td>
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<td>13 March</td>
<td>Friday, 16:00-17:30</td>
<td>M 2</td>
<td>E³ 1219 Infections of the chest</td>
<td>Rok Cesar, Golnik/SI</td>
<td>A. Pulmonary infections</td>
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<td>B. Tuberculosis (TB)</td>
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<td>C. Infectious endocarditis</td>
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<td>14 March</td>
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<td>M 2</td>
<td>E³ 1319 Cardiovascular imaging in pregnancy</td>
<td>Jean-Nicolas Dacher, Rouen/FR</td>
<td>A. Pulmonary embolism: optimising patient’s selection and radiation</td>
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<td>B. Acute aortic disease in pregnancy</td>
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<td>C. Imaging peripartum cardiomyopathy and other cardiac complications</td>
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<td>14 March</td>
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<td>M 2</td>
<td>E³ 1519 Mediastinal and cardiac tumours in adults</td>
<td>Emmanuel E.J.G. Coche, Brussels/BE</td>
<td>A. Prevascular compartment of the mediastinum</td>
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<td>B. Paravertebral space</td>
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<td>C. Cardiac masses: a survival guide</td>
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<td>14 March</td>
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<td>M 2</td>
<td>E³ 1619 Pulmonary embolism/ pulmonary hypertension</td>
<td>Galit Aviram, Tel Aviv/IL</td>
<td>A. Diagnosis of acute pulmonary embolism (PE)</td>
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<td>B. Pulmonary hypertension</td>
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<td>C. The heart in pulmonary hypertension</td>
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= Interactive introduction with electronic voting/self assessment
ARTIFICIAL INTELLIGENCE

**E3 120** Artificial intelligence in radiology: the basics you need to know

- **Chairperson’s introduction:** Artificial intelligence, machine learning and deep learning: what is the difference? [E3 120-1] Georg Langs; Vienna/AT
- **A. Conventional machine learning vs deep learning** [E3 120-2] Marleen de Bruijne; Rotterdam/NL
- **B. Training data for deep learning: what is needed?** [E3 120-3] Ben Glocker; London/UK
- **C. Clinical applications of artificial intelligence (AI) in medical imaging** [E3 120-4] Nickolas Papanikolaou; Lisbon/PT

**E3 220** Artificial intelligence for image reconstruction: towards deep imaging?

- **Chairperson’s introduction** [E3 220-1] Denis Le Bihan; Gif-sur-Yvette/FR
- **A. Deep learning for MRI reconstruction** [E3 220-2] Kerstin Hammernik; London/UK
- **B. Deep learning in cardiovascular MRI** [E3 220-3] Daniel Rueckert; London/UK
- **C. Deep learning in CT imaging** [E3 220-4] Mathias Prokop; Nijmegen/NL

**E3 320** Artificial intelligence and translations to clinical practice

- **Chairperson’s introduction** [E3 320-1] Wiro J. Niessen; Rotterdam/NL
- **A. Artificial intelligence (AI) use cases** [E3 320-2] Keith J. Dreyer; Boston, MA/US
- **B. Challenges to objectively compare performance of AI applications** [E3 320-3] Lena Maier-Hein; Heidelberg/DE
- **C. How far are we in getting AI into clinical practice?** [E3 320-4] Luis Martí-Bonmatí; Valencia/ES

**E3 420** Radiomics: principles and applications

- **Chairperson’s introduction** [E3 420-1] Stefan Klein; Rotterdam/NL
- **A. Radiomics: images are data!** [E3 420-2] Giuseppe Cicchetti; Rome/IT
- **B. Radiomics applications** [E3 420-3] Tobias Penzkofer; Berlin/DE
- **C. Multicentre studies for more robust radiomics signatures** [E3 420-4] Martijn Starmans; Rotterdam/NL

**E3 520** Artificial intelligence and clinical decision support

- **Chairperson’s introduction** [E3 520-1] Angel Alberich-Bayarri; Valencia/ES
- **A. Clinical decision support workflow improved by artificial intelligence (AI)** [E3 520-2] Erik R. Ranschaert; Tilburg/NL
- **B. Data mining and machine learning for integrated clinical decision support** [E3 520-3] Giles Boland; Boston, MA/US
- **C. AI to predict treatment response** [E3 520-4] Nandita M. deSouza; Sutton/UK

**E3 720** Challenges and solutions for introducing artificial intelligence (AI) in daily clinical workflow

- **Chairperson’s introduction** [E3 720-1] Elmar Kotter; Freiburg/DE
- **A. Implementation of AI algorithms in picture archiving and communication systems (PACS)** [E3 720-2] Wouter B. Veldhuis; Utrecht/NL
- **B. How to best complement human intelligence with AI** [E3 720-3] Christian J. Herold; Vienna/AT
- **C. AI, ethics and radiology** [E3 720-4] Adrian Brady; Cork/IE
- **D. AI in radiology: culture change** [E3 720-5] Howard Fleishon; Atlanta, GA/US
ARTIFICIAL INTELLIGENCE

Thursday, March 12, 16:00–17:30, Room M 5

E³ 820 Making visible the invisible: pushing the boundaries in multimodality radiomic quantification
Jointly organised by the ESR and EIBALL

Moderator: Nandita M. deSouza; Sutton/UK  {E³ 820-M}

» Chairperson's introduction  [E³ 820-I]
Laure S. Fournier; Paris/FR

A. Unravelling the mysteries of the black box: does radiomics enhance or complement biomarker data? [E³ 820-2]
Ana Jimenez-Pastor; Valencia/ES

B. Working across modalities: how do we progress from redundant to relevant data? [E³ 820-3]
Henry Woodruff; Maastricht/NL

Marius E. Mayerhöfer; Vienna/AT

» Panel discussion: How do we make sure radiomic analyses are ready for prime time use? [E³ 820-5]

INTERACTIVE TEACHING SESSIONS FOR YOUNG (AND NOT SO YOUNG) RADIOLOGISTS

Wednesday, March 11, 08:30–10:00, Room E

E³ 121a Musculoskeletal tumours  LEVEL II

A. Soft tissue tumours  [E³ 121a-1]
Filip M.H.M. Vanhoenacker; Antwerp/BE

B. Bone tumours  [E³ 121a-2]
F. Bilge Ergen; Ankara/TR

Wednesday, March 11, 08:30–10:00, Room F1

E³ 121b Emergency and chest radiology  LEVEL II

A. Dyspnoea in oncologic patients: how to approach it  [E³ 121b-1]
Cornelia M. Schaefer-Prokop; Amersfoort/NL

B. Blunt thoracic trauma: from the plain film to CT  [E³ 121b-2]
Anastasia Oikonomou; Toronto, ON/CA

Wednesday, March 11, 10:30–12:00, Room M 4

E³ 221 Paediatric brain imaging  LEVEL II

A. Head and neck emergencies in children  [E³ 221-1]
Andrea Rossi; Genoa/IT

B. Acute neurological child beyond trauma  [E³ 221-2]
Baard Nedregaard; Oslo/NO

Wednesday, March 11, 14:00–15:30, Room M 4

E³ 321 Paediatric radiology for the general radiologist  LEVEL II

A. Pitfalls in paediatric chest and abdomen  [E³ 321-1]
Brian D. Coley; Cincinnati, OH/US

B. Paediatric musculoskeletal imaging: normal variants or real injuries?  [E³ 321-2]
Fermin Saez; Barakaldo/ES

Wednesday, March 11, 16:00–17:30, Room F1

E³ 421 Imaging of the liver  LEVEL II

A. CT and MRI liver imaging reporting and data system (LIRADS): how to use it and what to expect  [E³ 421-1]
Anna Darnell; Barcelona/ES

B. Focal lesions in non-cirrhotic liver: how to diagnose, differentiate and manage  [E³ 421-2]
Giuseppe Brancatelli; Palermo/IT

= Interactive introduction/session with electronic voting/self assessment
**E³ – ADVANCED COURSES**

**INTERACTIVE TEACHING SESSIONS FOR YOUNG (AND NOT SO YOUNG) RADIOLOGISTS**

**March 12**

**Thursday, March 12, 08:30–10:00, Room F1**

**E³ 521** Small bowel imaging  
A. CT and MR enterography: my technical tips for preparation and scanning  
António J.B.S. Madureira; Porto/PT  
B. Detection of small bowel involvement in patients with peritoneal carcinomatosis before hyperthermic intraperitoneal chemotherapy (HIPEC)?  
Michael R. Torkzad; Stockholm/SE

**Thursday, March 12, 14:00–15:30, Room E**

**E³ 721a** Errare humanum est  
A. Errors in chest radiograph  
Denis Tack; Baudour/BE  
B. Errors in CT of the chest  
José Vilar; Valencia/ES

**Thursday, March 12, 14:00–15:30, Room M 2**

**E³ 721b** Head and neck imaging  
A. Cystic neck lesions  
Alexandra Borges; Lisbon/PT  
B. Non-traumatic head and neck emergencies  
Alejandro Rovira-Cañellas; Barcelona/ES

**Thursday, March 12, 16:00–17:30, Room M 4**

**E³ 821** Imaging of the brain  
A. Stroke mimics  
Majda M. Thurnher; Vienna/AT  
B. Acquired toxic-metabolic encephalopathies  
Martina Spero; Zagreb/HR

**Friday, March 13, 16:00–17:30, Room F1**

**E³ 1221** Gastrointestinal radiology  
A. Inflammatory bowel disease  
Jordi Rimola; Barcelona/ES  
B. Rectal cancer staging: key findings  
Ivana Blazic; Belgrade/RS

**March 12**

**Thursday, March 12, 16:00–17:30, Room E**

**E³ 721b** Head and neck imaging  
A. Cystic neck lesions  
Alexandra Borges; Lisbon/PT  
B. Non-traumatic head and neck emergencies  
Alejandro Rovira-Cañellas; Barcelona/ES

**March 13**

**Friday, March 13, 16:00–17:30, Room E**

**E³ 1221a** Genitourinary radiology for the general radiologist  
A. Cystic pelvic masses: differential diagnosis and management  
Olivera Nikolic; Novi Sad/RS  
B. Gynaecological emergencies  
Michael Weston; Leeds/UK

**March 13**

**Friday, March 13, 16:00–17:30, Room M 5**

**E³ 1821b** Breast imaging  
A. Imaging of ductal abnormalities  
Dragana Djilas-Ivanovic; Sremska Kamenica/RS  
B. Diffusion-weighted imaging (DWI) of the breast  
Niko Radović; Zagreb/HR

**March 14**

**Saturday, March 14, 08:30–10:00, Room E**

**E³ 1321** Musculoskeletal radiology: arthropathies  
A. Extremities  
Ustun Aydingoz; Ankara/TR  
B. The axial skeleton  
Apostolos H. Karantanas; Iraklion/GR

**March 15**

**Sunday, March 15, 08:30–10:00, Room E**

**E³ 1721** Neuroradiology: paediatric and adult  
A. Imaging in epilepsy: how to scan and find the suspect  
Michael Okujava; Tbilisi/GE  
B. Imaging in movement disorders: keeping up with the neurologist  
Kader Karli Oguz; Ankara/TR

**Sunday, March 15, 10:30–12:00, Room F1**

**E³ 1821a** Cardiac imaging: an update  
A. Coronary artery disease - reporting and data system (CAD-RADS): a new tool for reporting coronary CT angiograms (CTAs)  
Balint Szilveszter; Budapest/HU  
B. Athlete’s heart  
Jan Bogaert; Leuven/BE

**March 15**

**Sunday, March 15, 10:30–12:00, Room M 5**

**E³ 1821b** Breast imaging  
A. Imaging of ductal abnormalities  
Dragana Djilas-Ivanovic; Sremska Kamenica/RS  
B. Diffusion-weighted imaging (DWI) of the breast  
Niko Radović; Zagreb/HR

**= Interactive session with electronic voting/self assessment**
## E³ – ADVANCED COURSES

### HOT TOPICS IN GU CANCER

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<td>13 March</td>
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<td>M 5</td>
<td>Whole-body imaging in metastatic urinary tract and prostate cancer</td>
<td>Level II</td>
<td>Anwar R. Padhani; London/UK</td>
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<td>Chairperson's introduction [E³ 922-1]</td>
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<td>Frédéric E. Lecouvet; Brussels/BE</td>
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<td>A. Whole-body MRI: technique and reporting system [E³ 922-2]</td>
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<td>Nina Tunariu; London/UK</td>
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<td>B. Whole-body MRI and response assessment [E³ 922-3]</td>
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<td>Irene A. Burger; Zurich/CH</td>
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<td>C. PET and PET/MRI in prostate cancer [E³ 922-4]</td>
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<tr>
<td>13 March</td>
<td>Friday</td>
<td>16:00–17:30</td>
<td>M 5</td>
<td>Whole-body imaging in gynaecological malignancy</td>
<td>Level II</td>
<td>Pascal Rousse; Pierre-Benite/FR</td>
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<td>Chairperson's introduction [E³ 1222-1]</td>
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<td>Vincent Vandecaveye; Leuven/BE</td>
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<td>A. Whole-body MRI for staging and treatment planning in ovarian cancer [E³ 1222-2]</td>
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<td>Laie Umutlu; Essen/DE</td>
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<td>B. PET/CT and PET/MRI in cervix and endometrial cancer: current status [E³ 1222-3]</td>
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<td>Evis Sala; Cambridge/UK</td>
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<td>C. Advanced imaging techniques in metastatic gynaecological cancer [E³ 1222-4]</td>
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<td>14 March</td>
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<td>Tumour relapse in urological cancer</td>
<td>Level II</td>
<td>Vibeke Logager; Copenhagen/DK</td>
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<td>B. Non prostate urological cancer relapse [E³ 1522-3]</td>
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<td>Markus Hartenbach; Vienna/AT</td>
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<td>C. Theranostics in urological cancer [E³ 1522-4]</td>
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<td>16:00–17:30</td>
<td>M 5</td>
<td>Early detection of ovarian cancer</td>
<td>Level II</td>
<td>Angela George; London/UK</td>
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<td>Chairperson's introduction [E³ 1622-1]</td>
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<td>Andrea G. Rockall; London/UK</td>
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<td>A. Current guidance on screening and familial ovarian cancer [E³ 1622-2]</td>
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<td>Joseph Yazbek; London/UK</td>
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<td>B. Ultrasound in ovarian tumours: the role of pattern recognition, IOTA, and O-RADS [E³ 1622-3]</td>
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<td>Isabelle Thomassin-Naggrara; Paris/FR</td>
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<td>C. O-RADS: MRI [E³ 1622-5]</td>
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<td>15 March</td>
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<td>08:30–10:00</td>
<td>M 5</td>
<td>Early detection of prostate cancer</td>
<td>Level II</td>
<td>Arnaldo Stanzione; Naples/IT</td>
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<td>Aslam Sohaib; London/UK</td>
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<td>A. Screening for prostate cancer: where are we now? [E³ 1722-2]</td>
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<td>Angela George; London/UK</td>
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<td>B. Pre-biopsy detection and new techniques for detection in prostate cancer [E³ 1722-3]</td>
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<td>Shonit Punwani; London/UK</td>
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= Interactive introduction with electronic voting/self assessment

www.myESR.org
Clinical Decision Support

ESR iGuide is the European Society of Radiology’s clinical decision support solution to deliver evidence-based guidance for imaging referrals at the point of care.

We would like to meet you personally at ECR 2020 for a demonstration of ESR iGuide!

VISIT THE ESR iGUIDE BOOTH
EuroSafe Imaging Lounge,
1st floor – Foyer N

myESR.org/ESRiGuide
The E³ ECR Master Classes provide continuous professional development through the exploration of state-of-the-art knowledge and emerging trends of radiological subspecialties. Designed for the lifelong learner, the sessions are conducted by experts in their speciality armed with the most up-to-date information to ensure delivery of the highest level of education.

Places are allocated on a first-come, first-served basis.
**E³ – ECR MASTER CLASSES**

### March 11

**Wednesday, March 11, 10:30–12:00, Tech Gate Auditorium**

**Hybrid, Molecular and Translational Imaging**

**E³ 226**  
Quantitative imaging in oncology

- **Chairperson’s introduction**  
  James O’Connor; Manchester/UK

- **A. Intra- and intertumoural heterogeneity and the impact for cancer diagnostics**  
  Michel Eisenblätter; Münster/DE

- **B. Quantitative image biomarkers for targeted tumour therapies**  
  Roberto García Figueiras; Santiago de Compostela/ES

- **C. From quantitative imaging to radiomics and deep learning**  
  Horst K. Hahn; Bremen/DE

- **Panel discussion: What can we quantify and why is it essential?**  
  [E³ 226-5]

### March 12

**Thursday, March 12, 08:30–10:00, Room N**

**Paediatric**

**E³ 526a**  
Whole-body MRI in children

- **Chairperson’s introduction**  
  Goran Roić; Zagreb/HR

- **A. Technical considerations: the basics**  
  Laura Tanturri de Horatio; Rome/IT

- **B. Whole-body MRI in oncological conditions**  
  Annemieke S. Littooij; Utrecht/NL

- **C. Whole-body MRI in musculoskeletal inflammation**  
  Elisabeth Von Brandis; Oslo/NO

- **D. The future role of MR-PET**  
  Sergios Gatidis; Tübingen/DE

- **Panel discussion: Whole-body MRI in children: what to expect in the future?**  
  [E³ 526a-6]

**Paediatric**

**E³ 526b**  
Cardiac imaging in arrhythmia and sudden cardiac death

- **Chairperson’s introduction**  
  Paulo Donato; Coimbra/PT

- **A. The role of cardiovascular magnetic resonance (CMR) in sudden cardiac death**  
  Dorota Piotrowska-Kownacka; Warsaw/PL

- **B. Preventing sudden cardiac death with CT: pure theory or new diagnostic paradigm?**  
  Katarzyna Gruszczynska; Katowice/PL

- **C. Imaging to drive electrophysiology procedures**  
  Gianluca Pontone; Milan/IT

- **Panel discussion: Should we screen, who should we screen and how should we screen in order to prevent sudden cardiac death?**  
  [E³ 526b-5]

### March 13

**Friday, March 13, 14:00–15:30, Room G**

**Head and Neck**

**E³ 1126**  
Improving staging and treatment outcomes in head and neck cancer

- **Chairperson’s introduction**  
  Mariana Horta; Lisbon/PT

- **A. Nasopharynx: early tumour detection and imaging markers for treatment response**  
  Ann D. King; Hong Kong/CN

- **B. Early glottic carcinoma: new insights relevant for tumour staging and patient management**  
  Davide Farina; Brescia/IT

- **C. Oropharynx: risk stratification related to HPV association**  
  Agnieszka Trojanowska; Lublin/PL

- **Panel discussion: Will new developments in imaging alter staging and treatment in head and neck oncology?**  
  [E³ 1126-5]

**Vascular**

**E³ 826**  
Cone-beam, 4D and more: new diagnostic tools for vascular diseases

- **Moderator:** Tobias F. Jakobs; Munich/DE  
  [E³ 826-M]

- **A. The role of intraprocedural perfusion assessment in peripheral arterial disease**  
  Jim A. Reekers; Amsterdam/NL

- **B. CT 4D imaging after thoracic endovascular aortic repair (TEVAR)**  
  Rüdiger Schernthaner; Vienna/AT

- **C. How cone-beam CT can change your practice in interventional radiology**  
  Raman Uberoi; Oxford/UK

**Neuro**

**E³ 726**  
How to implement MRI neuro advanced techniques at home

- **Moderator:** Ioannis Tsougos; Larissa/GR  
  [E³ 726-M]

- **A. Practical approach to cerebral perfusion techniques**  
  Hans Rolf Jäger; London/UK

- **B. How to read spectroscopy**  
  Chen Hoffmann; Tel Hashomer/IL

- **C. How to read diffusion tensor imaging (DTI)**  
  Roberto Gasparotti; Brescia/IT

**Interactive session with electronic voting/self assessment**
**March 13**

Friday, March 13, 16:00–17:30, Studio 2020

**Oncologic Imaging**

**E3 1226** Whole-body MRI (and PET/MRI)  
**Moderator:** Davide Prezzi; London/UK  
**A.** Metastatic bone prostate cancer  
Frédéric E. Lecouvet; Brussels/BE  
**B.** Multiple myeloma  
Lia-Angela Moulopoulos; Athens/GR  
**C.** Lymphoma  
Marius E. Mayerhöfer; Vienna/AT

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**March 14**

Saturday, March 14, 08:30–10:00, Room O

**Breast**

**E3 1326a** Artificial intelligence (AI) in breast imaging: potential perspectives and (unjustified) fears  
**Moderator:** Thomas H. Helbich; Vienna/AT  
**A.** What a breast radiologist should know about artificial intelligence  
Elisabetta Giannotti; Nottingham/UK  
**B.** Deep learning algorithm applications in breast imaging  
Isabelle Thomassin-Naggara; Paris/FR  
**C.** Radiomics and breast imaging  
Katja Pinker-Domenig; New York, NY/US

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Saturday, March 14, 14:00–15:30, Darwin (Room D2)

**Abdominal Viscera**

**E3 1526** Update of diffusion-weighted MRI  
**Moderator:** Sören Rafaelsen; Vejle/DK  
**A.** Technical advances of diffusion-weighted imaging (DWI)  
Nickolas Papanikolaou; Lisbon/PT  
**B.** DWI of abdominal organs  
Damiano Caruso; Rome/IT  
**C.** DWI of pelvic organs  
Evis Sala; Cambridge/UK

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**March 14**

Saturday, March 14, 16:00–17:30, Studio 2020

**Musculoskeletal**

**E3 1626a** State-of-the-art imaging of postoperative joints  
**Moderator:** Franz Kainberger; Vienna/AT  
**A.** Postoperative shoulder  
Christian W.A. Pfirrmann; Zurich/CH  
**B.** Postoperative knee  
Edwin H.G. Oei; Rotterdam/NL  
**C.** Postoperative hip  
P. Diana Afonso; Lisbon/PT

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**March 15**

Sunday, March 15, 08:30–10:00, Room M 2

**Emergency Imaging**

**E3 1726** Post-treatment emergencies in oncologic patients  
**Chairperson’s introduction:** The role of imaging in the early detection of complications in oncologically treated patients  
Jonathan Spratt; Sunderland/UK  
**A.** Chest  
Sebastien Bommart; Montpellier/FR  
**B.** Abdomen  
Raffaella Basilico; Chieti/IT  
**C.** How can interventional radiologists help in the management of oncological treatment complications?  
Krzysztof K. Pyra; Lublin/PL  
**Panel discussion:** What is the impact of complication findings on the continued management of oncologic patients?  
= Interactive session with electronic voting/self assessment
EuroSafe Imaging is the ESR’s flagship initiative to promote quality and safety in medical imaging. Visit the lounge and learn more about radiation protection and safety in medical imaging, while enjoying a cup of coffee or tea.

This year, children are in focus – find out how EuroSafe Imaging helps to ensure the highest standards in paediatric radiology.

www.eurosafeimaging.org
Follow us on twitter or Facebook @ESREuroSafe

ACV, 1st floor – Foyer N
At ECR 2020, educational Hands-on Workshops dealing with the topics ‘MRI of the Prostate’, ‘MRI of the Pelvic Floor’, and ‘Ultrasound’ will take place. Participants will need to pre-register on-site at the workshop registration desk. Refer to INFORMATION FROM A–Z for more details.

For the ‘MRI of the Prostate’ workshops, each session is limited to 50 participants, with attendees only able to participate in one session from each ETC level.

For the ‘MRI of the Pelvic Floor’ workshops, each session is limited to 50 participants, with attendees only able to participate in one of the two sessions. All attendees are asked to bring along a laptop or tablet loaded with Dicom Viewer software to ensure interaction throughout the session.

For the ‘Ultrasound’ workshops, each session is limited to 30 participants, with attendees only able to participate in one session from each subtopic. Two interactive quizzes will also be held where participants can test their skills, with the winner of each quiz being awarded a prize.
HANDS-ON WORKSHOPS

MRI OF THE PROSTATE

**March 11, Wednesday, March 11, 09:00–10:00, Room H**

HW 130 Hands-on Workshop: MRI of the prostate (1)

- Instructor: Patrick Asbach; Berlin/DE

**March 11, Wednesday, March 11, 10:30–11:30, Room H**

HW 230 Hands-on Workshop: MRI of the prostate (2)

- Instructor: Alexander Baur; Berlin/DE

**March 11, Wednesday, March 11, 14:30–15:30, Room H**

HW 330 Hands-on Workshop: MRI of the prostate (3)

- Instructor: Geert M. Villeirs; Ghent/BE

**March 12, Thursday, March 12, 09:00–10:00, Room H**

HW 530 Hands-on Workshop: MRI of the prostate (4)

- Instructor: Anwar R. Padhani; London/UK

**March 12, Thursday, March 12, 14:30–15:30, Room H**

HW 730 Hands-on Workshop: MRI of the prostate (5)

- Instructor: Lars Schimmöller; Düsseldorf/DE

**March 12, Thursday, March 12, 16:00–17:00, Room H**

HW 830 Hands-on Workshop: MRI of the prostate (6)

- Instructor: Vibeke Logager; Copenhagen/DK

**March 13, Friday, March 13, 16:00–17:00, Room H**

HW 1230 Hands-on Workshop: MRI of the prostate (7)

- Instructor: Bernd Hamm; Berlin/DE

**March 14, Saturday, March 14, 09:00–10:00, Room H**

HW 1330 Hands-on Workshop: MRI of the prostate (8)

- Instructor: Patrick Asbach; Berlin/DE

**March 14, Saturday, March 14, 14:30–15:30, Room H**

HW 1530 Hands-on Workshop: MRI of the prostate (9)

- Instructor: Bernd Hamm; Berlin/DE

**March 14, Saturday, March 14, 16:00–17:00, Room H**

HW 1630 Hands-on Workshop: MRI of the prostate (10)

- Instructor: Anwar R. Padhani; London/UK
MRI OF PELVIC FLOOR

All attendees are asked to bring along a laptop or tablet loaded with Dicom Viewer software.

**Wednesday, March 11, 16:00–17:30, Room H**

**HW 431** Hands-on Workshop: MRI of the pelvic floor (1)

**Instructor:** Rania Farouk El Sayed; Cairo/EG

- Part I: Optimisation of imaging techniques and reporting: anatomy overview and standardised reporting
- Part II: Speciality based MRI report: case-based reporting and multi-compartment pelvic floor disorder (PFD)

**Wednesday, March 11, 14:00–15:30, Room Z**

**HW 432** Hands-on Workshop: Musculoskeletal ultrasound

**Instructor:** Carlo Martinoli; Genoa/IT

**Demonstrators:**
- Vito Cantisani; Rome/IT
- Adrian K.P. Lim; London/UK
- Paul S. Sidhu; London/UK
- Arturas Samuolis; Vilnius/LT

**Thursday, March 12, 08:30–10:00, Room Z**

**HW 532** Hands-on Workshop: Advanced applications of ultrasound

**Instructors:** Vito Cantisani; Rome/IT
- Adrian K.P. Lim; London/UK

**Demonstrators:**
- Vito Cantisani; Rome/IT
- Thomas Fischer; Berlin/DE
- Adrian K.P. Lim; London/UK
- Arturas Samuolis; Vilnius/LT
- Paul S. Sidhu; London/UK

**Thursday, March 12, 14:00–15:30, Room Z**

**HW 732** Hands-on Workshop: Interventional ultrasound

**Instructor:** Liat Appelbaum; Jerusalem/IL

**Demonstrators:**
- Ali Alsafi; London/UK
- Liat Appelbaum; Jerusalem/IL
- Nira Beck-Razi; Haifa/IL
- James Burn; London/UK
- Cheng Fang; London/UK
- Bjørn Skjoldbye; Herlev/DK

**Friday, March 13, 08:30–10:00, Room H**

**HW 931** Hands-on Workshop: MRI of the pelvic floor (2)

**Instructor:** Rania Farouk El Sayed; Cairo/EG

- Part I: Optimisation of imaging techniques and reporting: anatomy overview and standardised reporting
- Part II: Speciality based MRI report: case-based reporting and multi-compartment pelvic floor disorder (PFD)

**Wednesday, March 11, 08:30–10:00, Room Z**

**HW 832** Hands-on Workshop: Vascular ultrasound

**Instructors:**
- Diana Gaitini; Haida/IL
- Maija Radzina; Riga/LV

**Demonstrators:**
- Luca Aiani; Como/IT
- Fabrizio Calliada; Pavia/IT
- Kristoffer Lindskov Hansen; Copenhagen/DK
- Gordana Ivanac; Zagreb/HR
- Maija Radzina; Riga/LV

**Thursday, March 12, 14:00–15:30, Room Z**

**HW 732** Hands-on Workshop: Interventional ultrasound

**Instructor:** Liat Appelbaum; Jerusalem/IL

**Demonstrators:**
- Ali Alsafi; London/UK
- Liat Appelbaum; Jerusalem/IL
- Nira Beck-Razi; Haifa/IL
- James Burn; London/UK
- Cheng Fang; London/UK
- Bjørn Skjoldbye; Herlev/DK
HANDS-ON WORKSHOPS

ULTRASOUND

Thursday, March 12, 16:00–17:30, Room Z

HW 832  Hands-on Workshop:
Abdominal ultrasound

Instructor: Caroline Ewertsen; Copenhagen/DK
Demonstrators:
Ditte Dencker; Copenhagen/DK
Francesco M. Drudi; Rome/IT
Caroline Ewertsen; Copenhagen/DK
Zoltan Harkanyi; Budapest/HU
Adnan Kabaalioglu; Antalya/TR
Kristina Rue Nielsen; Copenhagen/DK

Friday, March 13, 08:30–10:00, Room Z

HW 932  Hands-on Workshop:
Musculoskeletal ultrasound

Instructor: Carlo Martinoli; Genoa/IT
Demonstrators:
Philip Hansen; Frederiksberg/DK
Carlo Martinoli; Genoa/IT
Marina Obradov; Nijmegen/NL
Philippe Peertons; Brussels/BE
Iwona Sudol-Szopińska; Warsaw/PL
James Teh; Oxford/UK

Friday, March 13, 16:00–17:00, Room X

HW Quiz 1  Ultrasound quiz

Quiz Master: Zoltan Harkanyi; Budapest/HU

Friday, March 13, 16:00–17:30, Room Z

HW 1232  Hands-on Workshop:
Vascular ultrasound

Instructors: Diana Gaitini; Haida/IL
Maja Radzina; Riga/LV

Demonstrators:
Luca Aiani; Como/IT
Fabrizio Calliada; Pavia/IT
Diana Gaitini; Haida/IL
Kristoffer Lindskov Hansen; Copenhagen/DK
Gordana Ivanac; Zagreb/HR
Maja Radzina; Riga/LV

Saturday, March 14, 08:30–10:00, Room Z

HW 1332  Hands-on Workshop:
Abdominal ultrasound

Instructor: Caroline Ewertsen; Copenhagen/DK
Demonstrators:
Ditte Dencker; Copenhagen/DK
Francesco M. Drudi; Rome/IT
Caroline Ewertsen; Copenhagen/DK
Zoltan Harkanyi; Budapest/HU
Adnan Kabaalioglu; Antalya/TR
Kristina Rue Nielsen; Copenhagen/DK

Saturday, March 14, 14:00–15:30, Room Z

HW 1532  Hands-on Workshop:
Interventional ultrasound

Instructor: Liat Appelbaum; Jerusalem/IL
Demonstrators:
Ali Alsafi; London/UK
Liat Appelbaum; Jerusalem/IL
Nira Beck-Razi; Haifa/IL
James Burn; London/UK
Bjørn Skjoldbye; Herlev/DK
Tim Yusuf; London/UK

Saturday, March 14, 16:00–17:30, Room Z

HW 1632  Hands-on Workshop:
Advanced applications of ultrasound

Instructors: Vito Cantisani; Rome/IT
Adrian K.P. Lim; London/UK

Demonstrators:
Vito Cantisani; Rome/IT
Elene Gotsiridze; Tbilisi/GE
Christopher J. Harvey; London/UK
Adrian K.P. Lim; London/UK
Arturas Samuilis; Vilnius/LT
Paul S. Sidhu; London/UK

Sunday, March 15, 08:30–09:30, Room X

HW Quiz 2  Ultrasound quiz

Quiz Master: Zoltan Harkanyi; Budapest/HU

= Interactive session with electronic voting/self assessment
ESR AT WORK SESSIONS

The ESR at Work Sessions are organised by bodies of the European Society of Radiology to showcase their current activities.

Places are allocated on a first-come, first-served basis.
EDiR SESSIONS  
(European Diploma in Radiology)

This session aims to prepare prospective candidates for the European Diploma in Radiology (EDiR).

11 March  
**Wednesday, March 11, 12:45–13:15, Room M 5**

**EDiR 1**  
An instrument to develop excellence in your career: practical session (part 1)

**Moderator:** Laura Oleaga Zufiria; Barcelona/ES  
[EDiR 1-M]

» **EDiR teaser**  
Laura Oleaga Zufiria; Barcelona/ES  
[EDiR 1-1]

» **Tips from an EDiR holder**  
Albert Pons Escoda; Barcelona/ES  
[EDiR 1-2]

12 March  
**Thursday, March 12, 12:45–13:15, Room M 5**

**EDiR 2**  
An instrument to develop excellence in your career: practical session (part 2)

**Moderator:** Laura Oleaga Zufiria; Barcelona/ES  
[EDiR 2-M]

» **EDiR teaser**  
Laura Oleaga Zufiria; Barcelona/ES  
[EDiR 2-1]

» **Tips from an EDiR holder**  
Christine Tolman; Gouda/NL  
[EDiR 2-2]

13 March  
**Friday, March 13, 12:45–13:45, Room M 5**

**EDiR 3**  
The Essential Guide by Springer and other new tools to prepare for the examination

**Moderator:** Laura Oleaga Zufiria; Barcelona/ES  
[EDiR 3-M]

» **The Essential Guide publication by Springer**  
Laura Oleaga Zufiria; Barcelona/ES  
[EDiR 3-1]

» **EDiR App: self-assessment**  
Winnifred van Lankeren; Rotterdam/NL  
[EDiR 3-2]

» **EDiR App: structured reporting**  
Fermin Saez; Barakaldo/ES  
[EDiR 3-3]

» **EDiR blog**  
Winnifred van Lankeren; Rotterdam/NL  
[EDiR 3-4]

» **Discussion**  
[EDiR 3-5]

14 March  
**Saturday, March 14, 14:00–15:00, Room M 3**

**EDiR Quiz**  
EDiR Holders vs Audience

**Moderators:** Winnifred van Lankeren; Rotterdam/NL  
[EDiR Quiz-M]

Giulia Zamboni; Verona/IT  
[EDiR Quiz-M]

**EDiR Holders:** Ekim Gümeler; Ankara/TR  
[EDiR Quiz-1]

Albert Pons Escoda; Barcelona/ES  
[EDiR Quiz-2]

Christine Tolman; Gouda/NL  
[EDiR Quiz-3]

= Interactive session with electronic voting/self assessment
ESR PATIENT ADVISORY GROUP (ESR-PAG) SESSION

Saturday, March 14, 14:00–15:30, Room X

PA  Artificial intelligence (AI) in radiology: meeting expectations and benefiting outcomes

Jointly organised by the ESR Patient Advisory Group (ESR-PAG) and ESR Sub committee on PIER

Chairpersons' introduction
Birgit Bauer; Abensberg/DE  [PA-1]  
Nikoleta I. Traykova; Plovdiv/BG  [PA-2]

The untapped potential of AI in radiology  [PA-3]
James A. Brink; Boston, MA/US

Managing expectations for a patient-centred application of AI in radiology  [PA-4]
Erik Briers; Hasselt/BE

A patient perspective on data privacy in AI  [PA-5]
Chris Isaacs; Woking/UK

Putting ethics first: key questions concerning AI in radiology  [PA-6]
Adrian Brady; Cork/IE

Data sets for training and validation of AI tools  [PA-7]
Luis Martí-Bonmatí; Valencia/ES

Panel discussion: How to embed AI in radiology to the benefit of a patient-centred approach  [PA-8]

ESR ULTRASOUND SUBCOMMITTEE SESSIONS

Wednesday, March 11, 10:30–12:00, Descartes (Room D3)

US 2  Ultrasound (US) incidental findings

Moderators: Christiane Nyhse; Strasbourg/FR  [US 2-M]  
Paolo Ricci; Rome/IT  [US 2-M]

Thyroid and lymph node  [US 2-1]
Dirk André Clevert; Munich/DE

Liver and pancreas  [US 2-2]
Mirko D’Onofrio; Verona/IT

Spleen and kidney  [US 2-3]
Michele Bertolotto; Trieste/IT

Testis and ovary  [US 2-4]
Paul S. Sidhu; London/UK

Panel discussion: Diagnostics and treatment  [US 2-5]

March 14
Saturday, March 14, 14:00–15:30, Room X

PA  Artificial intelligence (AI) in radiology: meeting expectations and benefiting outcomes

Jointly organised by the ESR Patient Advisory Group (ESR-PAG) and ESR Sub committee on PIER

Chairpersons' introduction
Birgit Bauer; Abensberg/DE  [PA-1]  
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The untapped potential of AI in radiology  [PA-3]
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A patient perspective on data privacy in AI  [PA-5]
Chris Isaacs; Woking/UK

Putting ethics first: key questions concerning AI in radiology  [PA-6]
Adrian Brady; Cork/IE

Data sets for training and validation of AI tools  [PA-7]
Luis Martí-Bonmatí; Valencia/ES

Panel discussion: How to embed AI in radiology to the benefit of a patient-centred approach  [PA-8]

March 14
Saturday, March 14, 14:00–15:30, Tech Gate Auditorium

US 15  Common applications of dermatologic ultrasound

Moderators: Orlando Catalano; Naples/IT  [US 15-M]  
Diana Gaitini; Haifa/IL  [US 15-M]

Chairperson's introduction  [US 15-1]
Ximena Wortsman; Santiago/CL

Dermatologic ultrasound: essential anatomy, guidelines, and technical considerations  [US 15-2]
Diana Gaitini; Haifa/IL

Top ten applications of ultrasound in benign dermatologic conditions  [US 15-3]
Ximena Wortsman; Santiago/CL

Ultrasonographic signs and locoregional staging of skin cancer  [US 15-4]
Orlando Catalano; Naples/IT

Questions and answers  [US 15-5]

March 14
Saturday, March 14, 16:00–17:30, Tech Gate Auditorium

US 16  Ultrasound-guided interventional procedures: new techniques and applications

Moderator: Dirk André Clevert; Munich/DE  [US 16-M]

Liver  [US 16-1]
Edward Leen; London/UK

Pancreas  [US 16-2]
Mirko D’Onofrio; Verona/IT

Kidney  [US 16-3]
Jean-Michel Correas; Paris/FR

Thyroid  [US 16-4]
Giovanni Mauri; Milan/IT

Vascular  [US 16-5]
Dirk André Clevert; Munich/DE

Panel discussion: How to be prepared for ultrasound-guided interventions?  [US 16-6]
Your Key to Research Funding

Our Mission is your Funding Success

Visit the EIBIR lounge in the main entrance hall
The Joint Sessions are an opportunity to gain a deeper insight into the multidisciplinary collaboration of the ESR with a multitude of other disciplines related to the world of medical imaging. The sessions highlight collaborative efforts in regards to science and professional issues.

Places are allocated on a first-come, first-served basis.
**EFOMP WORKSHOPS**  
(European Federation of Organisations for Medical Physics)

**EF11  CT protocol management and optimisation: management (part A)**

**Moderator:** Marco Brambilla; Novara/IT  
**EF11-M**

- **Chairperson’s introduction**  
  Kirsten Nygaard Bolstad; Bergen/NO  
  **EF11-1**

- **Developing a CT protocol management system (CT-PMS)**  
  Johan Sjöberg; Stockholm/SE  
  **EF11-2**

- **A general framework for monitoring CT acquisition workflow**  
  Timothy Szczykutowicz; Madison, WI/US  
  **EF11-3**

- **Dose tracking systems as a tool for CT-PMS**  
  Federica Zanca; Leuven/BE  
  **EF11-4**

This session is part of the EuroSafe Imaging campaign.

**EF12  CT protocol management and optimisation: optimisation (part B)**

**Moderator:** Annalisa Trianni; Udine/IT  
**EF12-M**

- **Chairperson’s introduction**  
  Mika Kortesniemi; Helsinki/FI  
  **EF12-1**

- **Optimised acquisition and reconstruction protocols: chest CT**  
  Elly Castellano; London/UK  
  **EF12-2**

- **Optimised acquisition and reconstruction protocols: cardiac CT**  
  Mannudeep Kalra; Boston, MA/US  
  **EF12-3**

- **Optimised acquisition and reconstruction protocols: abdomen and CT angiography**  
  Nico Buls; Brussels/BE  
  **EF12-4**

This session is part of the EuroSafe Imaging campaign.

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**EFRS WORKSHOPS**  
(European Federation of Radiographer Societies)

**EFRS WS 3  Growing radiography research**

**Moderators:** Andrew England; Salford/UK  
 Jonathan McNulty; Dublin/IE  
**EFRS WS 3-M**

- **Building research collaboration: my top tips**  
  Carst Buissink; Groningen/NL  
  **EFRS WS 3-1**

- **The EFRS Research Hub**  
  Louise A. Rainford; Dublin/IE  
  **EFRS WS 3-2**

- **Grant writing: my top tips**  
  Karen Knapp; Exeter/UK  
  **EFRS WS 3-3**

- **Considering doctoral studies: my top tips**  
  Jonathan McNulty; Dublin/IE  
  **EFRS WS 3-4**

- **Making the most of the EFRS Radiographer Research Network**  
  Andrew England; Salford/UK  
  **EFRS WS 3-5**

- **Panel discussion: Is radiographer research essential for all radiographers?**  
  **EFRS WS 3-6**

**EFRS WS 4  Public and patient involvement (PPI)**

**Moderators:** Charlotte Beardmore; London/UK  
 Erik Briers; Hasselt/BE  
**EFRS WS 4-M**

- **The patient’s perspective: considering our voice**  
  Erik Briers; Hasselt/BE  
  **EFRS WS 4-1**

- **Patient, public and practitioner partnerships at a national level: a UK case study**  
  Rachel Harris; London/UK  
  **EFRS WS 4-2**

- **Public and patient involvement in education and training**  
  Helle Precht; Odense/DK  
  **EFRS WS 4-3**

- **Public and patient involvement in research**  
  Anastassia Negrouk; Brussels/BE  
  **EFRS WS 4-4**

- **The role of the EFRS in supporting public and patient engagement**  
  Jonathan McNulty; Dublin/IE  
  **EFRS WS 4-5**

- **Panel discussion: Public and patient involvement: are we doing enough?**  
  **EFRS WS 4-6**
ESHIMT SESSION
(Chinese Society for Hybrid, Molecular and Translational Imaging)

Friday, March 13, 16:00–17:30, Room M1

The importance of identifying technical errors in hybrid imaging: pitfalls and artefacts in PET/CT and PET/MRI

Moderators: Melvin D’Anastasi; Msida/MT [ESHIMT-M]
Johannes Rübenhalter; Munich/DE [ESHIMT-M]

» Artefacts on PET/CT and PET/MRI [ESHIMT-I]
Ivo Rausch; Vienna/AT

» Pitfalls in FDG-PET/CT [ESHIMT-2]
Jose Luis Vercher-Conejero; Barcelona/ES

» Beyond FDG: pitfalls and artefacts [ESHIMT-3]
Clemens C. Cyran; Munich/DE

» Panel discussion: Clinical relevance of misinterpreting pitfalls and artefacts in hybrid imaging. How can we augment diagnostic confidence in hybrid imaging? [ESHIMT-4]

ESTI SESSION
(European Society of Thoracic Imaging)

Saturday, March 14, 14:00–15:30, Room O

Lung nodule management: case-based session

» Chairperson’s introduction [ESTI-4]
Helmut Prosch; Vienna/AT

» Solid nodule morphological evaluation: how to recognise obviously benign/malignant nodules, intrapulmonary lymph nodes, and pitfalls [ESTI-1]
Anand Devaraj; London/UK

» Solid nodule measurement, follow-up and criteria of positive screens [ESTI-2]
Mario Silva; Parma/IT

» Subsolid nodules evaluation, follow-up and criteria of positive screens [ESTI-3]
Marie-Pierre Revel; Paris/FR

= Interactive session with electronic voting/self assessment
JOINT SESSIONS

JOINT SESSIONS WITH RELATED SOCIETIES

Wednesday, March 11, 08:30–10:00, Room X

Joint Session of the ESR and ESTRO
ESR/ESTRO
Radiology and radiotherapy in liver tumours

» Chairpersons’ introduction
  Regina G.H. Beets-Tan; Amsterdam/NL  [ESR/ESTRO-1]
  Ben J. Slotman; Amsterdam/NL  [ESR/ESTRO-2]

» Stereotactic body radiation therapy (SBRT) in liver tumours  [ESR/ESTRO-3]
  Maria Hawkins; London/UK

» MRI-guided RT in liver tumours  [ESR/ESTRO-4]
  Luca Boldrini; Rome/IT

» Selective internal radiation therapy (SIRT) for liver tumours  [ESR/ESTRO-5]
  José Ignacio Bilbao; Pamplona/ES

» Post-selective intra-arterial radiation therapy (SIRT) response evaluation: what a radiologist should know  [ESR/ESTRO-6]
  Naama Lev-Cohain; Jerusalem/IL

» Panel discussion: Radiologists and radiotherapists: how can they help each other to achieve the best care for the patient with liver tumours  [ESR/ESTRO-7]

Thursday, March 12, 08:30–10:00, Room O

Joint Session of the ESR and EFLM
ESR/EFLM
Integrated diagnostics: are we ready for it?

» Chairpersons’ introduction
  Ana-Maria Simundic; Zagreb/HR  [ESR/EFLM-1]
  Boris Brkljačić; Zagreb/HR  [ESR/EFLM-2]

» Can we improve patient outcome by integrating radiology and laboratory medicine?
  Michael Neumaier; Mannheim/DE  [ESR/EFLM-3]
  Stefan O. Schönberg; Mannheim/DE  [ESR/EFLM-4]

» How to improve cancer detection through integrated diagnostics?  [ESR/EFLM-5]
  Verena Haselmann; Mannheim/DE

» Diagnosing heart failure: is there a better way?  [ESR/EFLM-6]
  Paul Collinson; London/UK

» Integrating blood biomarkers and radiology to achieve optimal detection and management of pulmonary embolism  [ESR/EFLM-7]
  Giuseppe Lippi; Verona/IT

» Panel discussion: Integrating the diagnostic strategies in radiology and laboratory medicine: a “nice to have” or a necessity?  [ESR/EFLM-8]
JOINT SESSIONS
WITH RELATED SOCIETIES

Thursday, March 12, 08:30–10:00, Room M 1

Joint Session of the ESR and UEMS
ESR/UEMS
Visibility of imaging professionals in the EU

» Chairpersons’ introduction
  Miraude Adriaensen; Heerlen/NL  [ESR/UEMS-I]
  Lorenzo Bonomo; Rome/IT  [ESR/UEMS-2]

» Putting your interests first: two approaches, one goal
  [ESR/UEMS-3]
  Lorenzo E. Derchi; Genoa/IT

» The UEMS approach
  Bernard Maiillet; Brussels/BE

» What does the EU mean for me? A radiologist’s guide
  Philips Catalano; Rome/IT  [ESR/UEMS-6]

» To be or not to be at the table: why advocacy matters for radiologists?
  Katrine Riklund; Umea/SE

» Creating a European radiology workforce: the value of qualifications across borders
  Carlo Catalano; Rome/IT  [ESR/UEMS-6]
  Vassilios Papalios; London/UK  [ESR/UEMS-7]

» Setting European standards for radiology: making your qualifications count at home and abroad
  Laura Oleaga Zufiria; Barcelona/ES

» Setting European standards for interventional neuroradiology: the UEMS ETR in INR
  Marek Sasiadek; Wroclaw/PL  [ESR/UEMS-9]

» Setting European standards for ultrasound: which way to go?
  Paolo Ricci; Rome/IT  [ESR/UEMS-10]

» Staying ahead of the curve with CME/CPD
  Vassilios Papalios; London/UK

» The importance of CME/CPD across Europe: the role of EACCME
  Vassilios Papalios; London/UK

» Which kind of European CME/CPD do the radiologists want to gain?
  Milos A. Lucic; Sremska Kamenica/RS

» Panel discussion: The state of radiology in the EU
  [ESR/UEMS-12]

Friday, March 13, 08:30–10:00, Room K

Joint Session of the ESR and EFOMP
ESR/EFOMP
Photon counting detectors: system design and clinical applications of an emerging technology

Moderators: Vesna Gershan; Skopje/MK  [ESR/EFOMP-M]
  Tamar Sella; Jerusalem/IL  [ESR/EFOMP-M]

» Photon counting CT: detector, prototypes and scan modes
  Marc Kachelrieß; Heidelberg/DE  [ESR/EFOMP-1]

» Pre-clinical and clinical applications of spectral photon counting CT (SPCCT)
  Philippe C. Douek; Lyon/FR  [ESR/EFOMP-2]

» Physics evaluation and initial clinical results with the first full-field photon counting CT system based on silicon
  Mats Danielsson; Stockholm/SE  [ESR/EFOMP-3]

» Digital mammography screening with photon counting technique: high diagnostic performance at low mean glandular dose
  Maximilian F.J. Ryan; Cork/IE  [ESR/EFOMP-4]

» Panel discussion: Which clinical applications are foreseeable for the photon counting technology?
  [ESR/EFOMP-5]

Thursday, March 12, 14:00–15:30, Studio 2020

Joint Session of the EFRS and ISRRT
EFRS_ISRRT
Artificial intelligence and the radiographer profession

» Chairpersons’ introduction
  Jonathan McNulty; Dublin/IE  [EFRS_ISRRT-1]
  Donna Newman; Fargo, ND/US  [EFRS_ISRRT-2]

» Exploring the current landscape and evidence-base relating to artificial intelligence (AI) and the radiographer profession
  Nicholas Hans Woznitza; London/UK  [EFRS_ISRRT-3]

» Ethical considerations in AI
  Adrian Brady; Cork/IE  [EFRS_ISRRT-4]

» Considering AI in our education and training programmes
  Maryann Hardy; Bradford/UK  [EFRS_ISRRT-5]

» Horizon scanning: the future of AI and the radiographer profession
  Melissa Jackowski; Angier, NC/US  [EFRS_ISRRT-6]

» Panel discussion: What steps can be taken to better prepare radiographers for AI?
  [EFRS_ISRRT-7]
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**People**
This is where the fun happens! From a range of interviews with specialists, fun and promotional clips to a look behind the scenes, the People Channel offers entertaining content on a lighter note.
Thursday, March 11, 10:30–12:00, Room M 1

Joint Session of the ESR, EFSUMB & EORTC

ESR/EFSUMB/EORTC

Advanced imaging for stratifying treatment in oligometastatic prostate cancer

Moderator: Nandita M. deSouza; Sutton/UK
[ESR/EORTC-1]

Chairperson’s introduction
Frédéric E. Lecouvet; Brussels/BE

Prostate cancer: managing the oligometastatic patient
Martin Spahn; Zurich/CH
[ESR/EORTC-2]

Whole-body MRI: is it ready for prime time to detect oligometastatic prostate cancer?
Frederik de Keyzer; Leuven/BE
[ESR/EORTC-3]

Molecular imaging for directing and delivering therapy in oligometastatic prostate cancer
Daniela Oprea-Lager; Amsterdam/NL
[ESR/EORTC-4]

Panel discussion: How, whom and when to image oligometastatic prostate cancer?
[ESR/EORTC-5]

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Wednesday, March 10, 08:30–10:00, Room X

Joint Session of the ESR and EFSUMB

ESR/EFSUMB

Bosniak cyst classification

Chairpersons’ introduction
Dirk André Clevert; Munich/DE
[ESR/EFSUMB-1]
Paul S. Sidhu; London/UK
[ESR/EFSUMB-2]

Contrast-enhanced ultrasound (CEUS) in the classification of Bosniak cysts: is it better?
Vito Cantisani; Rome/IT
[ESR/EFSUMB-3]

Role of CT and MRI
Thomas Fischer; Berlin/DE
[ESR/EFSUMB-4]

Key recommendations of the EFSUMB clinical position paper on US-based Bosniak cyst classification
Michele Bertolotto; Trieste/IT
[ESR/EFSUMB-5]

Interactive cases presentation with renal cysts
Jolanta Makowska-Webb; Liverpool/UK
[ESR/EFSUMB-6]
Matthew Ragel; Liverpool/UK
[ESR/EFSUMB-7]

Panel discussion: How would you classify this complex renal cyst?
[ESR/EFSUMB-8]

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Tuesday, March 9, 08:30–10:00, Room X

Joint Session of the ESR and ESMRMB

ESR/ESMRMB

Ultrahigh-field (UHF) MRI goes clinical and beyond

Moderators: Roland Kreis; Berne/CH
[ESR/ESMRMB-M]
Andrea G. Rockall; London/UK
[ESR/ESMRMB-M]

Challenges and solutions
Andrew Webb; Leiden/NL
[ESR/ESMRMB-1]

The clinical use today
Tim Sinnecker; Basle/CH
[ESR/ESMRMB-2]

New horizons
Jannie Wijnen; Utrecht/NL
[ESR/ESMRMB-3]

Panel discussion: Does UHF MRI add more than cost?
[ESR/ESMRMB-4]
Aim to be the best, learn from the best!

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The Refresher Courses (RC) are comprised of a variety of key radiological topics orchestrated by the scientific subcommittees. The aim of the sessions is not only to refresh the audience’s knowledge, but also to review, inform, and offer updates of the various fields through engaging presentations suitable for new radiologists through to experienced doctors.

Accepted papers for oral presentation are presented in the Research Presentation Sessions (RPS). The authors of the best research papers will be presented with a certificate and given free ECR 2021 registration. An award will be assigned to the best paper presentation of each topic based on an evaluation by session moderators and subcommittee members. The selection criteria consist of the quality of the presentation, the scientific content, and overall impression of the performance.

Places are allocated on a first-come, first-served basis.
**REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS**

### Abdominal and Gastrointestinal

**Wednesday, March 11, 08:30–10:00, Room F2**

#### RC 101  Colon cancer: a multidisciplinary approach

Moderator: Lennart K. Blomqvist; Stockholm/SE  
[(RC 101-M)]

A. What are the expectations from the surgeon?  
Dejan Ignjatovic; Oslo/NO  
[(RC 101-1)]

B. My CT protocol for staging colon cancer  
Anders Droisum; Oslo/NO  
[(RC 101-2)]

C. Integrated staging and vascular assessment  
Anne Negaard; Lørenskog/NO  
[(RC 101-3)]

**Wednesday, March 11, 10:30–12:00, Room O**

#### RC 201  Benign and malignant lesions in “forgotten organs”

Moderator: Iva Petkovska; New York, NY/US  
[(RC 201-M)]

A. Imaging of the spleen  
Cäcilia S. Reiner; Zurich/CH  
[(RC 201-1)]

B. Imaging of mesentery and omentum  
Max J. Lahaye; Amsterdam/NL  
[(RC 201-2)]

C. Imaging of the gallbladder  
Bart J. Op de Beeck; Antwerp/BE  
[(RC 201-3)]

**Wednesday, March 11, 14:00–15:30, Room G**

#### RC 301  Imaging the acute abdomen: new insights

Moderator: Dermot E. Malone; Dublin/IE  
[(RC 301-M)]

A. Acute mesenteric ischaemia  
Maxime Ronot; Clichy/FR  
[(RC 301-1)]

B. Low-dose abdominal CT for evaluating suspected appendicitis  
Kyoung Ho Lee; Seoul/KR  
[(RC 301-2)]

C. Acute colonic diverticulitis  
Sabine Schmidt Kobbe; Lausanne/CH  
[(RC 301-3)]

**Wednesday, March 11, 14:00–15:30, Room M 1**

#### RPS 301a  Pancreas and biliary disease

Moderators: Maria Chiara Ambrosetti; Verona/IT  
[(RPS 301a-M)]  
Sunil Kumar Puri; New Delhi/IN  
[(RPS 301a-M)]  
[(RPS 301a-I)]

**Wednesday, March 11, 14:00–15:30, Tech Gate Auditorium**

#### RPS 301b  The role of imaging in hepatocellular carcinoma (HCC) management

Moderators: Mark Burgmans; Leiden/NL  
[(RPS 301b-M)]  
Riccardo Sartoris; Clichy/FR  
[(RPS 301b-M)]

» Keynote lecture  
Ahmed Ba-Ssalamah; Vienna/AT  
[(RPS 301b-K)]

**Thursday, March 12, 11:15–12:30, Room C**

#### RPS 601a  Advances in rectal cancer imaging

Moderators: Ivana Blazic; Belgrade/RS  
[(RPS 601a-M)]  
Bart J. Op de Beeck; Antwerp/BE  
[(RPS 601a-M)]

**Thursday, March 12, 11:15–12:30, Room F1**

#### RPS 601b  Elastography

Moderators: Irina Abelskaya; Minsk/BY  
[(RPS 601b-M)]  
Chiara Pozzessere; Lausanne/CH  
[(RPS 601b-M)]

» Keynote lecture  
Maxime Ronot; Clichy/FR  
[(RPS 601b-K)]

**Thursday, March 12, 11:15–12:30, Room M 5**

#### RPS 601c  Diffuse liver disease

Moderators: Ulrike I. Attenberger; Mannheim/DE  
[(RPS 601c-M)]  
Christoforos Stoupis; Männedorf/CH  
[(RPS 601c-M)]

**Thursday, March 12, 14:00–15:30, Coffee & Talk 1**

#### RPS 701  Upper GI tract: what is new?

Moderators: Andrea Laghi; Rome/IT  
[(RPS 701-M)]  
Samuel Withey; London/UK  
[(RPS 701-M)]
Abdominal and Gastrointestinal Sessions

Friday, March 13, 08:30–10:00, Room G

RC 901  CT protocol selection for imaging of abdominal viscera

Moderator: Damian J.M. Tolan; Leeds/UK  [RC 901-M]

A. CT protocol of the liver  [RC 901-1]
   Filipe Caseiro Alves; Coimbra/PT
B. CT protocol of the pancreas  [RC 901-2]
   Wolfgang Schima; Vienna/AT
C. CT protocol in trauma patients  [RC 901-3]
   Andreas Schreyer; Brandenburg/DE

Friday, March 13, 11:15–12:30, Da Vinci (Room D1)

RPS 1001a  Advances in MRI techniques

[RPS 1001a-1 – RPS 1001a-II]

Moderators: Nickolas Papanikolaou; Lisbon/PT
   Francesco Regini; Florence/IT

» Keynote lecture  [RPS 1001a-K]
   Aart J. van der Molen; Leiden/NL

RPS 1001b  Colon cancer: techniques for detection and staging

[RPS 1001b-1 – RPS 1001b-II]

Moderators: Anders Drolsum; Oslo/NO
   Lukás Lambert; Prague/CZ

» Keynote lecture  [RPS 1001b-K]
   Marc J. Gollub; New York, NY/US

Friday, March 13, 11:15–12:30, Room M 3

RPS 1001c  Liver imaging and beyond: giving answers to clinical questions

[RPS 1001c-1 – RPS 1001c-II]

Moderators: Rok Dezman; Ljubljana/SI
   Axel Wetter; Essen/DE

RPS 1101  Advances in CT techniques

[RPS 1101-1 – RPS 1101-15]

Moderators: Nils Grosse-Hokamp; Cologne/DE
   Tim Leiner; Utrecht/NL

Friday, March 13, 14:00–15:30, Room M 3

Saturday, March 14, 08:30–10:00, Room C

RC 1301  Common benign and malignant liver lesions: unusual radiological appearance

Moderator: Sükrü Mehmet Ertürk; Istanbul/TR  [RC 1301-M]

A. Features of benign liver lesions  [RC 1301-1]
   Maria Manuela França; Porto/PT
B. Features of primary malignant liver lesions  [RC 1301-2]
   Valérie Vilgrain; Clichy/FR
C. Features of liver metastases  [RC 1301-3]
   Yves Menu; Paris/FR

Saturday, March 14, 11:15–12:30, Room F1

RPS 1401  Dos and don'ts for liver imaging reporting and data system (LI-RADS)

[RPS 1401-1 – RPS 1401-12]

Moderators: Nikola Borojevic; Warrington/UK
   Cäcilia S. Reiner; Zurich/CH

Saturday, March 14, 16:00–17:30, Room E

RC 1601  Imaging of pancreatitis

Moderator: Kristina I. Ringe; Hannover/DE  [RC 1601-M]

A. Focal pancreatitis vs adenocarcinoma  [RC 1601-1]
   Thomas Bollen; Nieuwegein/NL
B. IgG4 autoimmune pancreatitis  [RC 1601-2]
   Ankur Arora; Worthing/UK
C. Imaging of chronic pancreatitis  [RC 1601-3]
   Nikolaos Kartalis; Stockholm/SE
D. Interventions in acute pancreatitis  [RC 1601-4]
   Michael M. Maher; Cork/IE

Sunday, March 15, 10:30–12:00, Room O

RC 1801  Imaging of the biliary system

Moderator: Panos K. Prassopoulos; Thessaloniki/GR  [RC 1801-M]

A. Magnetic resonance cholangiopancreatography (MRCP): state of the art  [RC 1801-1]
   Celso Matos; Lisbon/PT
B. Primary sclerosing cholangitis (PSC)  [RC 1801-2]
   Giovanni Morana; Treviso/IT
C. Biliary drainage and stenting  [RC 1801-3]
   Thomas K. Helmberger; Munich/DE
Breast

**Wednesday, March 11, 08:30–10:00, Room G**

RPS 102 - Mammography and breast ultrasound: technical advances

**Moderators:** Corinne S. Baileguier; Villejuif/FR [RPS 102-M]
Nuala A. Healy; Cambridge/UK [RPS 102-M]

**Wednesday, March 11, 14:00–15:30, Room F2**

RC 302 - New developments in mammographic breast imaging

**Chairperson's introduction** [RC 302-1]
Min Sklair-Levy; Tel Aviv/IL

A. Tomo, 2D-Synthetic and artefacts: is it the same in all machines? [RC 302-2]
Ioannis Sechopoulos; Nijmegen/NL

B. Contrast mammography alone or combined with tomosynthesis: which is the way to go? [RC 302-3]
Paola Clauser; Vienna/AT

C. Phase-contrast mammography and future techniques [RC 302-4]
Marco Stampanoni; Zurich/CH

**Panel discussion:** Mammography, digital breast tomosynthesis, and contrast-enhanced mammography: where will we stand in 10 years? [RC 302-5]

**Thursday, March 12, 08:30–10:00, Tech Gate Auditorium**

RPS 502 - Breast cancer screening scenarios with and without tomosynthesis

**Moderators:** Shabnam Bhandari Grover; New Delhi/IN [RPS 502-M]
Maria Adele Marino; Messina/IT [RPS 502-M]

**Thursday, March 12, 11:15–12:30, Room O**

RPS 602a - Contrast-enhanced breast MRI and beyond

**Moderators:** Olga Puchkova; Moscow/RU [RPS 602a-M]
Rubina M. Trimboli; Milan/IT [RPS 602a-M]

**Thursday, March 12, 14:00–15:30, Coffee & Talk 2**

RPS 702 - Artificial intelligence, radiomics and more: part 1

**Moderators:** Otso Arponen; Tampere/FI [RPS 702-M]
Katja Pinker-Domenig; New York, NY/US [RPS 702-M]

**Friday, March 13, 11:15–12:30, Room O**

RPS 1002a - Contrast-enhanced x-ray imaging of the breast

**Moderators:** Gul Esen; Istanbul/TR [RPS 1002a-M]
Heike Preibsch; Tübingen/DE [RPS 1002a-M]

**Friday, March 13, 11:15–12:30, Darwin (Room D2)**

RPS 1002b - Interactions between breast radiology and pathology

**Moderators:** Eugen Divjak; Zagreb/HR [RPS 1002b-M]
Mihai Lesaru; Bucharest/RO [RPS 1002b-M]

**Friday, March 13, 14:00–15:30, Room N**

RC 1102 - State of the art and recent developments in breast ultrasound

**Moderator:** Alexandra Athanasiou; Athens/GR [RC 1102-M]

A. Breast ultrasound: tell me the value of coloured images [RC 1102-1]
Corinne S. Baileguier; Villejuif/FR

B. Automated breast ultrasound (ABUS): the right add-on in screening dense breast [RC 1102-2]
Athena Vourtsis; Athens/GR

C. Can artificial intelligence (AI) be helpful in the US-screening setting? [RC 1102-3]
Panagiotis Kapetas; Vienna/AT
REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS

**Breast**

**Friday, March 13, 16:00–17:30, Room C**

**RC 1202** Evidence-based breast MRI: when, how and why

» Chairperson’s introduction  [RC 1202-1]
  Francesco Sardanelli; San Donato Milanese/IT

A. Preoperative staging with MRI: fresh data on an old mantra  [RC 1202-2]
  Rubina M. Trimboli; Milan/IT

B. Abbreviated protocols: are we ready?  [RC 1202-3]
  Christiane K. Kuhl; Aachen/DE

C. How can we make use of MRI biomarkers in clinical practice?  [RC 1202-4]
  Laura Martinicich; Candiolo/IT

» Panel discussion: Why is the adoption of MRI in clinical practice still so difficult?  [RC 1202-5]

**Saturday, March 14, 08:30–10:00, Room B**

**RPS 1302** Imaging-guided breast biopsy innovations  
[RPS 1302-1 – RPS 1302-14]

Moderators: Tamar Sella; Jerusalem/IL  
[RPS 1302-M]

**Saturday, March 14, 11:15–12:30, Room C**

**RPS 1402a** Artificial Intelligence, radiomics and more: part 2  
[RPS 1402a-1 - RPS 1402a-12]

Moderators: Sanjay Jeganathan; Perth, WA/AU  
[RPS 1402a-M]

Hanna Sartor; Lund/SE  
[RPS 1402a-M]

**Saturday, March 14, 11:15–12:30, Room O**

**RPS 1402b** Hand-held, contrast-enhanced, and automated whole-breast ultrasound  
[RPS 1402b-1 - RPS 1402b-12]

Moderators: Gabriel Adelsmayr; Graz/AT  
[RPS 1402b-M]

Athena Vourtsis; Athens/GR  
[RPS 1402b-M]

**Saturday, March 14, 14:00–15:30, Room N**

**RC 1502** Interventional breast imaging: the increasing role of the radiologist

Moderator: Claudia Kurtz; Lucerne/CH  
[RC 1502-M]

A. Fine needle aspiration cytology (FNAC), core needle or vacuum assisted biopsy (VAB): what, when and how?  
[RC 1502-1]
Andrew Evans; Dundee/UK

B. Breast lesion localisation: going beyond wires  
[RC 1502-2]
Maja Marolt Music; Ljubljana/SI

C. Percutaneous ablation of breast cancer: a step forward  
[RC 1502-3]
Giovanni Mauri; Milan/IT

**Saturday, March 14, 16:00–17:30, Darwin (Room D2)**

**RPS 1602** Update on lesions with uncertain malignant potential (B3)

Moderator: Chantal Van Ongeval; Leuven/BE  
[RC 1602-M]

A. Wrap-up of the newest literature on the most important B3 lesions  
[RC 1602-1]
Zsuzsanna Varga; Zurich/CH

B. Imaging lesions of uncertain potential  
[RC 1602-2]
Anna Linda; Udine/IT

C. How to handle them: update on B3 guidelines  
[RC 1602-3]
Nisha Sharma; Leeds/UK

**Sunday, March 15, 10:30–12:00, Room X**

**RPS 1802** Breast cancer treatment monitoring  
[RPS 1802-1 – RPS 1802-15]

Moderators: Rosa M. Lorente Ramos; Madrid/ES  
[RPS 1802-M]

Marcello Alessandro Orsi; Milan/IT  
[RPS 1802-M]
REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS

Cardiac

11 March

Wednesday, March 11, 08:30–10:00, Da Vinci (Room D1)

RC 103 Imaging the complexity of pulmonary hypertension (PH) “syndrome”

Moderator: Marco Francone; Rome/IT  [RC 103-M]

A. Uncoupling right ventricular physiology with cardiovascular magnetic resonance (CMR): from early adaptation to heart failure  [RC 103-1]
    François Portana; Lille/FR

B. Assessment of PH by CT  [RC 103-2]
    Elena Mereshina; Moscow/RU

C. Cardiac imaging to monitor therapeutic response and predict outcome  [RC 103-3]
    Jens Vogel-Clausen; Hannover/DE

11 March

Wednesday, March 11, 10:30–12:00, Coffee & Talk 3

RPS 203 Myocardial perfusion imaging and infarct characterisation: diagnosis and prognosis  [RPS 203-1 – RPS 203-15]

Moderators: Tilman Emrich; Mainz/DE  [RPS 203-M]
    Rozemarijn Vliegenthart; Groningen/NL  [RPS 203-M]

11 March

Wednesday, March 11, 14:00–15:30, Coffee & Talk 2

RPS 303 Advanced CT and MR techniques  [RPS 303-1 – RPS 303-15]

Moderators: Gianluca de Rubeis; Rome/IT  [RPS 303-M]
    Katarzyna Gruszczynska; Katowice/PL  [RPS 303-M]

12 March

Thursday, March 12, 11:15–12:30, Studio 2020

RPS 603a Cardiomyopathies: functional assessment and deep phenotyping  [RPS 603a-1 – RPS 603a-11]

Moderators: Nicola Galea; Rome/IT  [RPS 603a-M]
    Alexis Jacquier; Marseille/FR  [RPS 603a-M]

» Keynote lecture  [RPS 603a-K]
    Maja Pirnat; Maribor/SI

12 March

Thursday, March 12, 11:15–12:30, Room M 1

RPS 603b Connecting the heart with the lungs and the rest of the body  [RPS 603b-1 – RPS 603b-11]

Moderators: Iacopo Carbone; Rome/IT  [RPS 603b-M]
    Viktoria Wieske; Berlin/DE  [RPS 603b-M]

» Keynote lecture  [RPS 603b-K]
    Maria Nedeva; Sofia/BG

12 March

Thursday, March 12, 14:00–15:30, Room F2

RPS 703 Cardiac function: advanced imaging techniques  [RPS 703-1 – RPS 703-15]

Moderators: N.N.  [RPS 703-M]

13 March

Friday, March 13, 11:15–12:30, Room K

RPS 1003a Emerging applications: cardiology and athletes’ hearts  [RPS 1003a-1 – RPS 1003a-11]

Moderators: Ekaterina Pershina; Moscow/RU  [RPS 1003a-M]
    Attila Tóth; Budapest/HU  [RPS 1003a-M]

» Keynote lecture  [RPS 1003a-K]
    Alexandros Kalifatidis; Thessaloniki/GR

13 March

Friday, March 13, 11:15–12:30, Tech Gate Auditorium

RPS 1003b Transcatheter structural cardiac intervention: TAVI and beyond  [RPS 1003b-1 – RPS 1003b-12]

Moderators: Florian Michallek; Berlin/DE  [RPS 1003b-M]
    Florian Wolf; Vienna/AT  [RPS 1003b-M]

» Keynote lecture  [RPS 1003b-K]
    Csilla Celeng; Utrecht/NL

13 March

Friday, March 13, 14:00–15:30, Coffee & Talk 3


Moderators: Riccardo Faletti; Turin/IT  [RPS 1103-M]

» Keynote lecture  [RPS 1103-K]
    Udo Hoffmann; Boston, MA/US
Refresher Courses / Research Presentation Sessions

Cardiac

**March 14, Saturday, 08:30–10:00, Room M 3**

**RC 1303** New techniques in cardiac CT: game changers or money makers?

- Chairperson’s introduction: Will the new techniques overcome the clinical underuse of cardiac CT?
  - [RC 1303-1]
  - Konstantin Nikolaou; Tübingen/DE
- A. Morphology matters: cardiac CT can improve the outcome
  - [RC 1303-2]
  - Giuseppe Muscogiuri; Milan/IT
- B. CT perfusion: integration of function will change the game
  - [RC 1303-3]
  - Rozemarijn Vliegenthart; Groningen/NL
- C. CT-derived fractional flow reserve (FFR) is the future!
  - [RC 1303-4]
  - Uwe Joseph Schoepf; Charleston, SC/US
- Panel discussion: Artificial intelligence to overcome clinical underuse of these techniques
  - [RC 1303-5]

**March 14, Saturday, 11:15–12:30, Room Y**

**RPS 1403a** Epicardial fat, coronary calcifications and cardiovascular risk stratification: what’s new in cardiac imaging?

- [RPS 1403a-1 - RPS 1403a-12]
- Moderators: Gabriele A. Krombach; Giessen/DE
  - [RPS 1403a-M]
  - Giuseppe Muscogiuri; Milan/IT
  - [RPS 1403a-M]

**March 14, Saturday, 11:15–12:30, Da Vinci (Room D1)**

**RPS 1403b** Paediatric cardiology and congenital heart disease

- [RPS 1403b-1 - RPS 1403b-10]
- Moderators: Olov Duvernoy; Uppsala/SE
  - [RPS 1403b-M]
  - Lene Kathrine Rydén Suther; Oslo/NO
  - [RPS 1403b-M]
- Keynote lecture
  - [RPS 1403b-K]
  - Jean-Nicolas Dacher; Rouen/FR

**March 14, Saturday, 16:00–17:30, Room K**

**RC 1603** Dead or alive: imaging of myocardial viability

- Chairperson’s introduction
  - [RC 1603-1]
  - Charles Peebles; Southampton/UK
- A. MRI: why and when
  - [RC 1603-2]
  - Tim Leiner; Utrecht/NL
- B. Hybrid imaging
  - [RC 1603-3]
  - Federico Caobelli; Basle/CH
- C. CT: how and why
  - [RC 1603-4]
  - Fabian Bamberg; Freiburg/DE
- Panel discussion: What imaging test for which patient?
  - [RC 1603-5]

**March 15, Sunday, 08:30–10:00, Tech Gate Auditorium**

**RC 1703** Cardiac imaging in structural heart disease

- Chairperson’s introduction
  - [RC 1703-1]
  - Luigi Natale; Rome/IT
- A. CT-guided planning of minimally invasive procedures
  - [RC 1703-2]
  - Rodrigo Salgado; Antwerp/BE
- B. Defining the optimal time to treat valvular heart disease: role of MRI
  - [RC 1703-3]
  - Alban Redheuil; Paris/FR
- C. Follow-up after minimally invasive valvular repair
  - [RC 1703-4]
  - Hatem Alkadhi; Zurich/CH
- Panel discussion: How to face the challenges of the increasing demand for imaging evaluation in structural heart disease
  - [RC 1703-5]

**March 15, Sunday, 10:30–12:00, Coffee & Talk 1**

**RPS 1803** Myocarditis and MINOCA syndromes

- [RPS 1803-1 - RPS 1803-15]
- Moderators: Robin Gohmann; Aachen/DE
  - [RPS 1803-M]
  - Luigi Natale; Rome/IT
  - [RPS 1803-M]
REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS

Chest

11 March Wednesday, March 11, 14:00–15:30, Room O
RC 304 Thoracic emergencies: part 1 LEVEL II
Moderator: Benoit Ghaye; Brussels/BE [RC 304-M]
A. Chest trauma [RC 304-1]
Monique Brink; Nijmegen/NL
B. Lung ultrasound: only for the intensive care doctors? [RC 304-2]
Daniel A. Lichtenstein; Paris/FR
C. Infectious emergencies [RC 304-4]
Ireneke Hartmann; Rotterdam/NL
D. Diagnosing pulmonary embolism (PE) [RC 304-3]
Galit Aviram; Tel Aviv/IL

11 March Wednesday, March 11, 16:00–17:30, Room O
RC 404 Thoracic emergencies: part 2 LEVEL II
Moderator: Gerhard H. Mostbeck; Vienna/AT [RC 404-M]
A. Emergencies in thoracic oncology [RC 404-1]
Catherine Beigelman; Lausanne/CH
B. Haemoptysis [RC 404-2]
Antoine Khalil; Paris/FR
C. Non-ischaemic cardiac emergencies [RC 404-3]
Christian Loewe; Vienna/AT
D. Postoperative and iatrogenic complications [RC 404-4]
Jonathan D. Dodd; Dublin/IE

12 March Thursday, March 12, 11:15–12:30, Darwin (Room D2)
RPS 604a Evaluation of interstitial lung disease: recent advances and new techniques [RPS 604a-1 – RPS 604a-11]
Moderators: Elisa Baratella; Trieste/IT [RPS 604a-M]
Eric J. Stern; Seattle, WA/US [RPS 604a-M]
» Keynote lecture [RPS 604a-K]
Mariana Benegas; Barcelona/ES

12 March Thursday, March 12, 11:15–12:30, Room M 3
RPS 604b Deep learning in chest radiograph and chest CT interpretation [RPS 604b-1 – RPS 604b-11]
Moderators: Alessandra Farchione; Rome/IT [RPS 604b-M]
Carlos F. Muñoz-Nuñez; Valencia/ES [RPS 604b-M]
» Keynote lecture [RPS 604b-K]
Emanuele Neri; Pisa/IT

12 March Thursday, March 12, 14:00–15:30, Room F2
RPS 1104 New applications of advanced CT and MRI [RPS 1104-1 – RPS 1104-15]
Moderators: N.N. [RPS 1104-M]

12 March Thursday, March 12, 08:30–10:00, Room C
RC 504 Lung nodule management in 2020 LEVEL II
» Chairperson’s introduction [RC 504-1]
Ruxandra-Iulia Milos; Vienna/AT
A. Radiological assessment [RC 504-2]
Thomas Frauenfelder; Zurich/CH
B. Computer-aided diagnosis (CAD) and artificial intelligence (AI) perspective [RC 504-3]
Anna Rita Larici; Rome/IT
C. Management guidelines [RC 504-4]
Alexander A. Bankier; Boston, MA/US
» Panel discussion: What do radiologists need to better manage pulmonary nodules? [RC 504-5]

13 March Friday, March 13, 14:00–15:30, Room F2
RC 1204 Pulmonary neuroendocrine proliferations and neoplasms LEVEL II
Moderator: Mario Silva; Parma/IT [RC 1204-M]
A. Diffuse idiopathic pulmonary neuroendocrine cell hyperplasia (DIPNECH) [RC 1204-1]
Guillaume Chassagnon; Paris/FR
B. Carcinoid tumours [RC 1204-2]
Helmut Prosch; Vienna/AT
C. Small cell lung cancer (SCLC) [RC 1204-3]
Marco Das; Duisburg/DE

13 March Friday, March 13, 16:00–17:30, Da Vinci (Room D1)
RC 304 Thoracic emergencies: part 1 LEVEL II
Moderator: Benoit Ghaye; Brussels/BE [RC 304-M]
A. Chest trauma [RC 304-1]
Monique Brink; Nijmegen/NL
B. Lung ultrasound: only for the intensive care doctors? [RC 304-2]
Daniel A. Lichtenstein; Paris/FR
C. Infectious emergencies [RC 304-4]
Ireneke Hartmann; Rotterdam/NL
D. Diagnosing pulmonary embolism (PE) [RC 304-3]
Galit Aviram; Tel Aviv/IL
Ceo: Artificial Intelligence and Machine Learning

**Saturday, March 14, 11:15–12:30, Room E**

**RPS 1404a**  Implementing lung cancer screening

[RPS 1404a-1 - RPS 1404a-12]

**Moderators:** Constance de Margerie-Mellon; Paris/FR
[**RPS 1404a-M**]
Stefan Diederich; Düsseldorf/DE
[**RPS 1404a-M**]

» **Keynote lecture**  [RPS 1404a-K]

**Saturday, March 14, 11:15-12:30, Room M 5**

**RPS 1404b**  Latest techniques in imaging of pulmonary vascular disease

[RPS 1404b-1 - RPS 1404b-12]

**Moderators:** Lukas Ebner; Berne/CH
[**RPS 1404b-M**]

**Sunday, March 15, 08:30–10:00, Coffee & Talk 3**

**RPS 1704**  The dark side of chest imaging

[RPS 1704-1 - RPS 1704-15]

**Moderators:** Mario Silva; Parma/IT
[**RPS 1704-M**]
Denis Tack; Baudour/BE
[**RPS 1704-M**]

**Sunday, March 15, 10:30–12:00, Room M 4**

**RC 1804**  Back to basics: how to interpret a chest radiograph?

**Level:**

» **Chairperson's introduction**  [RC 1804-1]
Rok Cesar; Golnik/SI

A. **A chest radiography reading guide**  [RC 1804-2]
Nicola Hilary Strickland; London/UK

B. **Alveolar, interstitial and nodular syndromes**  [RC 1804-3]
Francesco Molinari; Lille/FR

C. **Lobar atelectasis**  [RC 1804-4]
Denis Tack; Baudour/BE

D. **Pleural syndrome**  [RC 1804-5]
Anagha P. Parkar; Bergen/NO

E. **Mediastinal syndrome**  [RC 1804-6]
Mariaelena Occhipinti; Florence/IT

**Wednesday, March 11, 08:30–10:00, Room M 2**

**RPS 105**  Artificial intelligence and machine learning of the lungs

[RPS 105-1 - RPS 105-13]

**Moderators:** Laurens Topff; Amsterdam/NL
[**RPS 105-M**]
Oliver Weinheimer; Heidelberg/DE
[**RPS 105-M**]

» **Keynote lecture**  [RPS 105-K]

**Thursday, March 12, 11:15–12:30, Room N**

**RPS 605a**  Artificial intelligence and MRI radiomics

[RPS 605a-1 - RPS 605a-12]

**Moderators:** Mykola Novikov; Kiev/UA
[**RPS 605a-M**]
Oleg S. Pianykh; Newton Highlands, MA/US
[**RPS 605a-M**]

**Thursday, March 12, 11:15–12:30, Room G**

**RPS 605b**  Artificial intelligence and machine learning in breast cancer

[RPS 605b-1 - RPS 605b-11]

**Moderators:** Paola Clauser; Vienna/AT
[**RPS 605b-M**]
Miguel Angel Guevara Lopez; Guimarães/PT
[**RPS 605b-M**]

» **Keynote lecture**  [RPS 605b-K]
Sarah J. Vinnicombe; Dundee/UK

**Friday, March 13, 08:30–10:00, Room N**

**RPS 905**  Artificial intelligence and machine learning for ultrasound

[RPS 905-1 - RPS 905-14]

**Moderators:** Vito Cantisani; Rome/IT
[**RPS 905-M**]
Merel Huisman; Utrecht/NL
[**RPS 905-M**]
REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS

Artificial Intelligence and Machine Learning

13 March
Friday, March 13, 11:15–12:30, Room M 5

RPS 1005b Artificial intelligence and machine learning in reporting and workflow
([RPS 1005b-1 - RPS 1005b-12])

Moderators: Mansoor Fatehi; Tehran/IR
[RPS 1005b-M]
Daniel Pinto dos Santos; Cologne/DE
[RPS 1005b-M]

13 March
Friday, March 13, 16:00–17:30, Coffee & Talk 2

RPS 1205 Artificial intelligence and machine learning for x-ray imaging
([RPS 1205-1 - RPS 1205-15])

Moderators: Ludo Cornelissen; Groningen/NL
[RPS 1205-M]
Yuri Kovalenko; Kiev/UA
[RPS 1205-M]

14 March
Saturday, March 14, 11:15–12:30, Room N

RPS 1405b Artificial intelligence and CT radiomics
([RPS 1405b-1 - RPS 1405b-12])

Moderators: Marton Kolossvary; Budapest/HU
[RPS 1405b-M]
Tobias Penzkofer; Berlin/DE
[RPS 1405b-M]

14 March
Saturday, March 14, 11:15–12:30, Room N

RPS 1405a Artificial intelligence and machine learning in the brain
([RPS 1405a-1 - RPS 1405a-11])

Moderators: Marleen de Bruijne; Rotterdam/NL
[RPS 1405a-M]
Asif Mazumder; London/UK
[RPS 1405a-M]

» Keynote lecture [RPS 1405a-K]

15 March
Sunday, March 15, 08:30–10:00, Coffee & Talk 2

RPS 1705 Artificial intelligence: technical aspects
([RPS 1705-1 - RPS 1705-15])

Moderators: Juha Peltonen; Helsinki/FI
[RPS 1705-M]

15 March
Sunday, March 15, 10:30–12:00, Tech Gate Auditorium

RPS 1805 Deep learning based scanning, image reconstruction, and quality assurance
([RPS 1805-1 - RPS 1805-13])

Moderators: Rebeca Mirón Mombiela; Herlev/DK
[RPS 1805-M]
Annalisa Trianni; Udine/IT
[RPS 1805-M]

» Keynote lecture [RPS 1805-K]
Vesna Gershan; Skopje/MK

Imaging Informatics

11 March
Wednesday, March 11, 16:00–17:30, Room X

RC 405 Effect of the EU General Data Protection Regulations (GDPR): moving patients’ data across hospitals, regions, countries

Moderator: Osman Ratib; Geneva/CH
[RC 405-M]

A. The GDPR: an overview [RC 405-1]
Christoph D. Becker; Geneva/CH

B. Transferring patients’ data across hospitals, regions, countries: pros and cons [RC 405-2]
Elmar Kotter; Freiburg/DE

C. Anonymous or pseudo-anonymous 2D-3D data: is privacy really warranted? [RC 405-3]
Timo De Bondt; Antwerp/BE

D. Management of data for clinical trials [RC 405-4]
Daniele Regge; Turin/IT

12 March
Thursday, March 12, 14:00–15:30, Tech Gate Auditorium

RC 705 Everything you need to know about 3D post-processing

» Chairperson’s introduction [RC 705-1]
Erich Sorantin; Graz/AT

A. 3D post-processing in 2020 [RC 705-2]
Angel Alberich-Bayarri; Valencia/ES

B. Making better use of your 3D package: tips and tricks [RC 705-3]
Peter M.A. van Ooijen; Groningen/NL

C. Interpretation of 3D processing results: from image to volume reading [RC 705-4]
Thomas Frauenfelder; Zurich/CH

» Panel discussion: Will we still look at 2D images in 10 years’ time? [RC 705-5]

13 March
Friday, March 13, 11:15–12:30, Room M 2

RPS 1005a Radiomics and texture analysis
([RPS 1005a-1 - RPS 1005a-12])

Moderators: Andrea Bink; Basle/CH
[RPS 1005a-M]
Doris Leithner; Frankfurt a. Main/DE
[RPS 1005a-M]

14 March
Saturday, March 14, 08:30–10:00, Room M 1

RPS 1305 Imaging informatics in Europe and beyond
([RPS 1305-1 - RPS 1305-15])

Moderators: Josep Fernandez-Bayó; Sabadell/ES
[RPS 1305-M]
Sergios Gatidis; Tübingen/DE
[RPS 1305-M]
REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS

Hybrid, Molecular and Translational Imaging

Genitourinary

Wednesday, March 11, 16:00–17:30, Room M 1

RC 406 Merging the best: hybrid imaging
Moderator: Gerald Antoch; Düsseldorf/DE [RC 406-M]
A. Hybrid imaging with SPECT/CT [RC 406-1]
Andrew Scarsbrook; Leeds/UK
B. Hybrid imaging with PET/MRI [RC 406-2]
Fabian M.A. Kiessling; Aachen/DE
C. Hyperpolarised MRI [RC 406-3]
Ferdia A. Gallagher; Cambridge/UK

Wednesday, March 11, 14:00–15:30, Coffee & Talk 1

RPS 307 Deep learning and radiomics in prostate imaging
Moderators: Tahir Durmus; Berlin/DE [RPS 307-M]
Philippe Puech; Lille/FR [RPS 307-M]

Wednesday, March 11, 14:00–15:30, Da Vinci (Room D1)

RC 407 Acute and chronic pelvic pain
Moderator: Martin Helbich; Vienna/AT [RC 407-M]
A. Acute pelvic pain [RC 407-1]
Olivera Nikolic; Novi Sad/RS
B. Chronic non-endometriotic pelvic pain [RC 407-2]
Milagros Otero Garcia; Vigo/ES
C. Endometriosis [RC 407-3]
Rahel A. Kubik-Huch; Baden/CH
D. Embolisation of pelvic congestion syndrome [RC 407-4]
Raman Uberoi; Oxford/UK

Saturday, March 14, 11:15–12:30, Room M 1

RPS 1406 From hyperpolarised MRI to multimodal imaging probes
Moderators: Silvio Aime; Turin/IT [RPS 1406-M]
Irena Pashkunova-Martic; Vienna/AT [RPS 1406-M]
Keynote lecture [RPS 1406-K]
Xavier Golay; London/UK

March 11

Wednesday, March 11, 11:00–17:30, Room M 1

RPS 706 Clinical utility of hybrid imaging with PET/CT/MRI [RPS 706-1 – RPS 706-13]
Moderators: Mirjam Gerwing; Muenster/DE [RPS 706-M]
Michel Herranz; Santiago de Compostela/ES [RPS 706-M]
Keynote lecture [RPS 706-K]
Jiri Ferda; Plzen/CZ

March 12

Thursday, March 12, 14:00–15:30, Room M 1

RPS 806 Advancing clinical hybrid imaging
Organised by ESHIMT

March 12

Thursday, March 12, 16:00–17:30, Room M 1

RPS 1406 From hyperpolarised MRI to multimodal imaging probes [RPS 1406-1 – RPS 1406-11]

March 12

Thursday, March 12, 14:00–15:30, RPS 706 Clinical utility of hybrid imaging with PET/CT/MRI [RPS 706-1 – RPS 706-13]
Moderators: Mirjam Gerwing; Muenster/DE [RPS 706-M]
Michel Herranz; Santiago de Compostela/ES [RPS 706-M]
Keynote lecture [RPS 706-K]
Jiri Ferda; Plzen/CZ

March 12

Thursday, March 12, 16:00–17:30, Room M 1

RPS 806 Advancing clinical hybrid imaging
Organised by ESHIMT

March 12

Thursday, March 12, 16:00–17:30, Room M 1

RPS 1406 From hyperpolarised MRI to multimodal imaging probes [RPS 1406-1 – RPS 1406-11]
Moderators: Silvio Aime; Turin/IT [RPS 1406-M]
Irena Pashkunova-Martic; Vienna/AT [RPS 1406-M]
Keynote lecture [RPS 1406-K]
Xavier Golay; London/UK

March 14

Saturday, March 14, 11:15–12:30, Room M 1

RPS 1406 From hyperpolarised MRI to multimodal imaging probes [RPS 1406-1 – RPS 1406-11]
Moderators: Silvio Aime; Turin/IT [RPS 1406-M]
Irena Pashkunova-Martic; Vienna/AT [RPS 1406-M]
Keynote lecture [RPS 1406-K]
Xavier Golay; London/UK
REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS

Genitourinary

**Thursday, March 12, 08:30–10:00, Studio 2020**

**RC 507** Imaging in pregnancy

» Chairperson’s introduction  
[RC 507-1]  
Gabriele Masselli; Rome/IT

A. Safety issues in pregnancy: what radiologists need to know  
[RC 507-2]  
Charis Bourgioti; Athens/GR

B. Imaging acute abdomen in pregnancy  
[RC 507-3]  
Michael Weston; Leeds/UK

C. Imaging the placenta  
[RC 507-4]  
Helen Clare Addley; Cambridge/UK

» Panel discussion: How should we image the pregnant woman, and when?  
[RC 507-5]

This session is part of the EuroSafe Imaging campaign.

**Thursday, March 12, 11:15–12:30, Da Vinci (Room D1)**

**RPS 607** New ultrasound modalities in the genitourinary system  
[RPS 607-1 – RPS 607-11]

Moderators: Elena Bertelli; Florence/IT  
[RPS 607-M]  
Goran Roić; Zagreb/HR  
[RPS 607-M]

» Keynote lecture  
[RPS 607-K]  
Veronika Gazhonova; Moscow/RU

**Thursday, March 12, 14:00–15:30, Descartes (Room D3)**

**RC 707** Prostate cancer management: pushing the diagnostic frontier  
Jointly organised by ESHR®, ESOI and ESUR

» Chairperson’s introduction  
[RC 707-1]  
Osman Ratib; Geneva/CH

A. The role of MRI  
[RC 707-2]  
Valeria Panebianco; Rome/IT

B. The role of molecular imaging: PSMA-PET/CT and PET/MR  
[RC 707-3]  
Heinz-Peter Schlemmer; Heidelberg/DE

C. Theranostic approaches to prostate cancer management  
[RC 707-4]  
Harun Ilhan; Munich/DE

» Panel discussion: Beyond the frontier: next steps in imaging of prostate cancer  
[RC 707-5]

**Friday, March 13, 11:15–12:30, Room N**

**RPS 1007** Imaging in pregnancy and female tumours  
[RPS 1007-1 – RPS 1007-10]

Moderators: Gabriele Masselli; Rome/IT  
[RPS 1007-M]  
Theresa Mokry; Heidelberg/DE  
[RPS 1007-M]

**Friday, March 13, 14:00–15:30, Room K**

**RPS 1107** Prostate lesions scoring and treatment  
[RPS 1107-1 – RPS 1107-15]

Moderators: Mustafa Secil; Izmir/TR  
[RPS 1107-M]  
Maarten de Rooij; Nijmegen/NL  
[RPS 1107-M]

**Saturday, March 14, 08:30–10:00, Room F2**

**RPS 1307** Prostate MRI for differential diagnosis  
[RPS 1307-1 – RPS 1307-15]

Moderators: Jane Belfield; Liverpool/UK  
[RPS 1307-M]  
Tarek El-Diasty; Mansoura/EG  
[RPS 1307-M]

**Saturday, March 14, 11:15–12:30, Coffee & Talk 2**

**RPS 1407a** Is there any news in CT protocols for renal masses and stones evaluation?  
[RPS 1407a-1 – RPS 1407a-12]

Moderators: Marijana Basta Nikolic; Novi Sad/RS  
[RPS 1407a-M]  
Jonathan Richenberg; Brighton/UK  
[RPS 1407a-M]

**Saturday, March 14, 11:15–12:30, Room K**

**RPS 1407b** Multimodality approach in imaging of the uterus and endometriosis  
[RPS 1407b-1 – RPS 1407b-11]

Moderators: Manca Garbajs; Ljubljana/SI  
[RPS 1407b-M]  
Dragos Negru; Iasi/RO  
[RPS 1407b-M]

» Keynote lecture  
[RPS 1407b-K]  
Natalia Rubtsova; Moscow/RU
Genitourinary

Sunday, March 15, 08:30–10:00, Room E

RPS 1707  Kidney and bladder problem solving: a different approach  
[RPS 1707-1 – RPS 1707-15]

Moderators: Ivica Sjekavica; Zagreb/HR  
[RPS 1707-M]

Sunday, March 15, 10:30–12:00, Room K

RC 1807  Contrast media: acute kidney injury and acute adverse reactions

» Chairperson’s introduction  [RC 1807-1]  
Marie-France Bellin; Le Kremlin-Bicêtre/FR

A. Post-contrast acute kidney injury (PC-AKI)  [RC 1807-2]  
Aart J. van der Molen; Leiden/NL

B. Iodine-based contrast media in myeloma patients  [RC 1807-3]  
Gertraud Heinz-Peer; St. Pölten/AT

C. Ongoing evidence for acute adverse reactions  [RC 1807-4]  
Olivier Clément; Paris/FR

» Panel discussion: Towards a safer use of contrast media  [RC 1807-5]

Head and Neck

Wednesday, March 11, 08:30–10:00, Room Y

RPS 108  Advanced imaging in head and neck tumours  
[RPS 108-1 – RPS 108-13]

Moderators: Christian Czerny; Vienna/AT  
[Tommaso D’Angelo; Messina/IT  
[RPS 108-M]

» Keynote lecture  [RPS 108-K]  
Sotirios Bisdas; London/UK

Wednesday, March 11, 14:00–15:30, Room M 3

RC 308  Head and neck imaging: when does it become abnormal?  
LEVEL II

Moderator: Nadine Thieme; Berlin/DE  
[RC 308-M]

A. Normative measures in the temporal bone  [RC 308-1]  
Francis Veillon; Strasbourg/FR

B. Normative measures in the orbit  [RC 308-2]  
Romain Kohler; Sion/CH

C. Anatomical variations of importance in dental implant planning  [RC 308-3]  
Salvatore Cappabianca; Naples/IT

D. Growing up or growing wrong  [RC 308-4]  
Berit Verbist; Leiden/NL

Wednesday, March 11, 16:00–17:30, Room M 3

RC 408  Imaging of eye and orbital pathologies  
LEVEL II

Moderator: Marc M. Lemmerling; Ghent/BE  
[RC 408-M]

A. Traumatic lesions of the eye and orbit  [RC 408-1]  
Angeliki Alianou; Neuchâtel/CH

B. Infection and inflammation in the eye and orbit  [RC 408-2]  
Katharina Erb-Eigner; Berlin/DE

C. Benign and malignant masses of the eye and orbit  [RC 408-3]  
Pim De Graaf; Amsterdam/NL

Thursday, March 12, 11:15–12:30, Room Y

RPS 608  Thyroid gland  
[RPS 608-1 – RPS 608-11]

Moderators: Timothy Beale; London/UK  
[Elene Gotsiridze; Tbilisi/GE  
[RPS 608-M]

» Keynote lecture  [RPS 608-K]  
Andrew S. McQueen; Newcastle/UK
An institution dedicated to the harmonisation of radiological standards.

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**Head and Neck**

**Thursday, March 12, 16:00–17:30, Room F2**

**RC 808** - Differential diagnoses you don’t want to miss  
**Level:** I  
**Moderator:** Enrico Arkink; Reykjavik/IS (RC 808-M)

A. Differential diagnoses of bone lesions in the head and neck: excluding dental cysts  
**RC 808-1**  
Vincent Lenoir; Geneva/CH

B. Differential diagnoses of cystic lesions in the head and neck: including dental cysts  
**RC 808-2**  
Soraya Robinson; Vienna/AT

C. Differential diagnoses of soft tissue masses of the face and neck in adults  
**RC 808-3**  
Davide Farina; Brescia/IT

**Friday, March 13, 11:15–12:30, Coffee & Talk 3**

**RPS 1008** - Temporal bone and auditory pathway  
**RC 808-1** – **RPS 1008-12**  
**Moderators:** Piotr Golofit; Szczecin/PL (RPS 1008-M)

**Saturday, March 14, 11:15–12:30, Coffee & Talk 3**

**RPS 1408** - Maxillofacial and sinonasal imaging  
**RC 1408-1** – **RPS 1408-11**  
**Moderators:** Heidi Beate Eggessbø; Oslo/NO (RPS 1408-M)  
Mariana Horta; Lisbon/PT (RPS 1408-M)

» Keynote lecture  
Selen Bayraktaroglu; Izmir/TR (RPS 1408-K)

**Sunday, March 15, 14:00–15:30, Room B**

**RPS 1808** - Imaging of the neck: more than thyroid  
**RC 1808-1** – **RPS 1808-15**  
**Moderators:** Nikoleta I. Traykova; Plovdiv/BG (RPS 1808-M)

**Thursday, March 12, 11:15–12:30, Descartes (Room D3)**

**RPS 609a** - Lung and mediastinal interventions  
**RC 609a-1** – **RPS 609a-12**  
**Moderators:** Miltiadis Krokidis; Cambridge/UK (RPS 609a-M)  
Leyla Musayeva; Baku/AZ (RPS 609a-M)

**Friday, March 13, 11:15–12:30, Room M 2**

**RPS 609b** - Experimental  
**RC 609b-1** – **RPS 609b-12**  
**Moderators:** Jurgen J. Fütterer; Nijmegen/NL (RPS 609b-M)  
Federico Pedersoli; Aachen/DE (RPS 609b-M)

**Saturday, March 14, 11:15–12:30, Coffee & Talk 3**

**RPS 1408** - Maxillofacial and sinonasal imaging  
**RC 1408-1** – **RPS 1408-11**  
**Moderators:** Piotr Golofit; Szczecin/PL (RPS 1408-M)

**Sunday, March 15, 10:30–12:00, Coffee & Talk 2**

**RPS 1009** - Liver malignancies: HCC and metastases  
**RC 1009-1** – **RPS 1009-15**  
**Moderators:** Enrique Pinto; Liverpool/UK (RPS 1009-M)

**Monday, March 15, 10:30–12:00, Room C**

**RPS 1009a** - Lymphatic and venous interventions  
**RC 1009a-1** – **RPS 1009a-12**  
**Moderators:** Rupert Horst Portugaller; Graz/AT (RPS 1009a-M)  
Krzysztof K. Pyra; Lublin/PL (RPS 1009a-M)

**Tuesday, March 15, 10:30–12:00, Room D3**

**RPS 1009b** - Spine and bone  
**RC 1009b-1** – **RPS 1009b-12**  
**Moderators:** Tiago Baptista; Lisbon/PT (RPS 1009b-M)  
Peter Popovic; Ljubljana/SI (RPS 1009b-M)
### Interventional Radiology

#### March 14

**Saturday, March 14, 11:15-12:30, Coffee & Talk 1**

**RPS 1409a** Intervventional practice, dose management and education  
(RPS 1409a-1 - RPS 1409a-11)  
**Moderators:** Viktor Bérczi; Budapest/HU  
(RPS 1409a-M)

**RPS 1409b** Peripheral arterial interventions  
(RPS 1409b-1 - RPS 1409b-11)  
**Moderators:** Zoltán Bánsághi; Budapest/HU  
(RPS 1409b-M)

**Saturday, March 14, 11:15-12:30, Room G**

**RPS 1609** Genitourinary interventions  
(RPS 1609-1 - RPS 1609-15)  
**Moderators:** Richard Nolz; Vienna/AT  
(Bora Peynircioğlu; Ankara/TR  
(RPS 1609-M)

#### March 15

**Sunday, March 15, 08:30-10:00, Room O**

**RPS 1709** TIPS and liver venous intervention  
(RPS 1709-1 - RPS 1709-13)  
**Moderators:** Guillermo Elizondo-Riojas; Monterrey/MX  
(Pierleone Lucatelli; Rome/IT  
(RPS 1709-M)

  » **Keynote lecture**  
  (RPS 1709-K)

### Musculoskeletal

#### March 11

**Wednesday, March 11, 08:30-10:00, Room M 1**

**RPS 110** Cartilage, bone marrow oedema, tissue and body imaging  
(RPS 110-1 - RPS 110-15)  
**Moderators:** Bernhard Tins; Oswestry/UK  
(Evangelia Vassalou; Iraklion/GR  
(RPS 110-M)

**Wednesday, March 11, 10:30-12:00, Room F2**

**RC 210** Musculoskeletal tumours  
**Moderator:** F. Bilge Ergen; Ankara/TR  
(RC 210-M)

  A. Bone tumours and tumour-like conditions  
  (RC 210-1)  
  Paul O’Donnell; Stanmore/UK

  B. Soft tissue tumours  
  (RC 210-2)  
  Alberto Bazzocchi; Bologna/IT

  C. Tumours of the spinal column  
  (RC 210-3)  
  Filip M.H.M. Vanhoenacker; Antwerp/BE

**Wednesday, March 11, 16:00-17:30, Coffee & Talk 1**

**RPS 610** Ultrasound, interventions and new techniques  
(RPS 610-1 - RPS 610-12)  
**Moderators:** Georgina M. Allen; Oxford/UK  
(RPS 610-M)

  » **Keynote lecture**  
  (RPS 610-K)  
  Bianca Bignotti; Genoa/IT

**Wednesday, March 11, 16:00-17:30, Room F2**

**RC 410** Imaging of chronic forefoot pain  
**Moderator:** Magdalena S. Posadzy; Poznan/PL  
(RC 410-M)

  A. Articular disorders  
  (RC 410-1)  
  Maryam Shahabpour; Brussels/BE

  B. Extra-articular source of pain  
  (RC 410-2)  
  Guillaume Bierry; Strasbourg/FR

  C. Imaging-guided percutaneous treatment of forefoot pain  
  (RC 410-3)  
  Roberto Luigi Cazzato; Strasbourg/FR

**Thursday, March 12, 08:30-10:00, Room E**

**RC 510** MRI of the knee  
**Moderator:** Edwin H.G. Oei; Rotterdam/NL  
(RC 510-M)

  A. Anterior knee pain  
  (RC 510-1)  
  Maria Tzalanikou; Athens/GR

  B. Meniscal abnormalities: obvious and subtle  
  (RC 510-2)  
  Patrick Omoumi; Lausanne/CH

  C. Cruciate and collateral ligaments  
  (RC 510-3)  
  Anagha P. Parkar; Bergen/NO

**Thursday, March 12, 11:15-12:30, Room B**

**RPS 610** Ultrasound, interventions and new techniques  
(RPS 610-1 - RPS 610-12)  
**Moderators:** Georgina M. Allen; Oxford/UK  
(RPS 610-M)

  » **Keynote lecture**  
  (RPS 610-K)  
  Bianca Bignotti; Genoa/IT
March 13

**Thursday, March 12, 16:00–17:30, Room C**

- **RC 810** Inflammatory and infectious diseases of the spine: how to differentiate from degeneration  
  **Moderator:** Ilze Engele; Riga/LV  
  **A. Spondyloarthritis: a diagnostic chameleon**  
  Veronika Zubler; Zurich/CH  
  **B. Crystals: may also affect the spine**  
  Monique Reijnierse; Leiden/NL  
  **C. Infection: imaging, indication and techniques for biopsy**  
  Jean-Luc Drapé; Paris/FR

**Friday, March 13, 08:30–10:00, Room M 4**

- **RC 910** The old spine: challenges of imaging and treatment  
  **Moderator:** Miraude Adriaensen; Heerlen/NL

**Friday, March 13, 11:15–12:30, Room B**

- **RPS 1010a** Artificial intelligence (AI) and new techniques in MRI  
  **Moderators:** Luca M. Sconfienza; Milan/IT  
  Reto Sutter; Zurich/CH

**Friday, March 13, 11:15–12:30, Room M 4**

- **RPS 1010b** Hip, pelvis and lower extremity  
  **Moderators:** P. Diana Afonso; Lisbon/PT  
  Tobias Dietrich; St. Gallen/CH

**Friday, March 13, 14:00–15:30, Room M 5**

- **RPS 1110** Knee  
  **Moderators:** Ziga Snoj; Ljubljana/SI  
  Pieter van Dyck; Antwerp/BE

**Saturday, March 14, 11:15–12:30, Room F2**

- **RPS 1410a** Spine and inflammatory disorders  
  **Moderators:** Magdalena S. Posadzky; Poznan/PL  
  Winston Joseph Rennie; Leicester/UK

**Saturday, March 14, 11:15–12:30, Room M 4**

- **RPS 1410b** Tumours and bone density  
  **Moderators:** Silvia Mariani; L’Aquila/IT  
  Monique Reijnierse; Leiden/NL

**Saturday, March 14, 14:00–15:30, Room C**

- **RC 1510** Imaging of forgotten small joints  
  **Moderator:** Prudencia N.M. Tyrrell; Oswestry/UK

**Saturday, March 14, 16:00–17:30, Room C**

- **RPS 1610** Knee and lower extremities  
  **Moderators:** Antonio Barile; L’Aquila/IT
REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS

Musculoskeletal

14 March
Saturday, March 14, 16:00–17:30, Room F2
RC 1610 Musculoskeletal infection [LEVEL III]

Moderator: Mitja Rupreht; Maribor/SI [RC 1610-M]
A. Imaging osteomyelitis: an update [RC 1610-1]
  Jan Fritz; Baltimore, MD/US
B. Soft tissue infections [RC 1610-2]
  Silvia Martin; Palma de Mallorca/ES
C. Septic arthritis [RC 1610-3]
  Radhesh Lalam; Oswestry/UK

15 March
Sunday, March 15, 08:30–10:00, Room F2
RC 1710 Muscle oedema, injury and atrophy [LEVEL II]

Moderator: Maximilian F. Reiser; Munich/DE [RC 1710-M]
A. Non-infectious causes of muscle inflammation and muscle injury due to nerve entrapment [RC 1710-1]
  Nadja Saupé; Zurich/CH
B. Traumatic and overuse injuries of the muscles [RC 1710-2]
  Franz Kainberger; Vienna/AT
C. Sarcopenia: more than just atrophy [RC 1710-3]
  Violeta Vasilevska-Nikodinovska; Skopje/MK

15 March
Sunday, March 15, 08:30–10:00, Room M 1
RPS 1710 Upper extremities and facial bones [RPS 1710-1 - RPS 1710-13]

Moderators: Helga Brøgger; Oslo/NO [RPS 1710-M]
Benedikt J. Schweiger; Munich/DE [RPS 1710-M]

» Keynote lecture [RPS 1710-K]
  Marco Zanetti; Zurich/CH

15 March
Sunday, March 15, 10:30–12:00, Descartes (Room D3)
RC 1810 Elbow imaging: from detailed anatomy to pathology [LEVEL II]

Moderator: Andrea B. Rosskopf; Zurich/CH [RC 1810-M]
A. The medial and lateral epicondyly [RC 1810-1]
  Milko C. De Jonge; Utrecht/NL
B. Biceps and triceps [RC 1810-2]
  Alberto Tagliafico; Genoa/IT
C. Plicae and articular cartilage [RC 1810-3]
  Andrea Alcalá-Galiano; Madrid/ES

Neuro

11 March
Wednesday, March 11, 08:30–10:00, Room N
RC 111 Cranio-cervical junction [LEVEL I]

» Chairperson’s introduction [RC 111-1]
  Johan Van Goethem; Antwerp/BE
A. Congenital abnormalities [RC 111-2]
  Andrea Rossi; Genoa/IT
B. Trauma [RC 111-3]
  Ashok Adams; London/UK
C. Systemic diseases and tumours [RC 111-4]
  Karl-Olof Levblad; Geneva/CH

» Panel discussion: Imaging strategies for assessing the craniocervical junction [RC 111-5]

11 March
Wednesday, March 11, 10:30–12:00, Room F1
RPS 211 Spine and nerves [RPS 211-1 - RPS 211-15]

Moderators: Simonetta Gerevini; Milan/IT [RPS 211-M]
Hülya Ozdemir; Adana/TR [RPS 211-M]

11 March
Wednesday, March 11, 10:30–12:00, Room K
RC 211 Sellar and suprasellar lesions [LEVEL I]

» Chairperson’s introduction [RC 211-1]
  Marijana Karlović-Vidaković; Mostar/BA
A. Anatomy, variants and function of the pituitary gland [RC 211-2]
  Seamus Looby; Dublin/IE
B. Imaging of sellar and suprasellar lesions [RC 211-3]
  Zoran Rumboldt; Rovinj/HR
C. Post-treatment findings and follow-up [RC 211-4]
  Fabrice Bonneville; Toulouse/FR

» Panel discussion: Imaging sellar and suprasellar lesions [RC 211-5]

11 March
Wednesday, March 11, 14:00–15:30, Room X
RPS 311 Gadolinium retention and neurovascular imaging [RPS 311-1 - RPS 311-12]

Moderators: Kresimir Dolc; Split/HR [RPS 311-M]
Zsигmond Tamás Kincses; Szeged/HU [RPS 311-M]

» Keynote lecture [RPS 311-K]
  Dragan A. Stojanov; Nis/RS

11 March
Wednesday, March 11, 16:00–17:30, Room M 4
RPS 411 Paediatric neuroimaging and neuroanatomy [RPS 411-1 - RPS 411-15]

Moderators: Nadezhda Plakhotina; St. Petersburg/ RU [RPS 411-M]
12 March Thursday, March 12, 08:30–10:00, Room M 4
RC 511 Brain tumours: new things you should know

» Chairperson’s introduction [RC 511-1]
Dora Zlatareva; Sofia/BG
A. Low grade glioma [RC 511-2]
Marion Smits; Rotterdam/NL
B. High grade glioma [RC 511-3]
Tarek A. Yousry; London/UK
C. Posterior fossa tumours [RC 511-4]
Sumeet Kumar; Singapore/SG

12 March Thursday, March 12, 11:15–12:30, Room F2
RPS 611a Neurodegenerative diseases
[RPS 611a-1 – RPS 611a-12]

Moderators: Jasmina Boban; Novi Sad/RS
[RPS 611a-M]
Bozena Góraj; Nijmegen/NL
[RPS 611a-M]

12 March Thursday, March 12, 14:00–15:30, Room B
RC 711 Inflammatory and infectious central nervous system (CNS) pathology

» Chairperson’s introduction [RC 711-1]
Ali Murat Koc; Izmir/TR
A. Autoimmune encephalitis [RC 711-2]
Philippe Demaerel; Leuven/BE
B. Infectious encephalitis [RC 711-3]
Anna Zimny; Wroclaw/PL
C. Inflammatory and infectious myelitis [RC 711-4]
Majda M. Thurnher; Vienna/AT

13 March Friday, March 13, 08:30–10:00, Room F2
RC 911 Neuromuscular imaging

» Chairperson’s introduction [RC 911-1]
Leroy ten Dam; Amsterdam/NL
A. How to image patients with neuromuscular disease [RC 911-2]
Marc-André Weber; Rostock/DE
B. How to report congenital myopathies [RC 911-3]
Anna Pichiecchio; Pavia/IT
C. How to recognise adult neuromuscular disease? [RC 911-4]
Sachit Shah; London/UK

13 March Friday, March 13, 11:15–12:30, Room C
RPS 1011a Brain tumours
[RPS 1011a-1 – RPS 1011a-11]

Moderators: Andrei I. Holodny; New York, NY/US
[RPS 1011a-M]
Pablo Naval Baudin; L’Hospitalet de Llobregat/ES
[RPS 1011a-M]

13 March Friday, March 13, 11:15–12:30, Room M 1
RPS 1011b Radiomics and deep learning in neuroimaging
[RPS 1011b-1 – RPS 1011b-12]

Moderators: Anouk van der Hoorn; Groningen/NL
[RPS 1011b-M]
Kader Karli Oguz; Ankara/TR
[RPS 1011b-M]

13 March Friday, March 13, 14:00–15:30, Room M 1
RPS 1111 Neurovascular diseases
[RPS 1111-1 – RPS 1111-15]

Moderators: Francesca Bozzetti; Parma/IT
[RPS 1111-M]
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REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS

Neuro

14 March

Saturday, March 14, 11:15–12:30, Studio 2020

RPS 1411a Arterial spin labeling brain perfusion

[RC 1411a-M]
Cem Calli; Izmir/TR

A. Imaging myelin maturation disorders

[RC 1411a-2]
Fabio M. Trulzi; Milan/IT

B. Imaging of developmental disorders

[RC 1411a-3]
Birgit Ertl-Wagner; Toronto, ON/CA

C. Imaging in paediatric neuro-oncology

[RC 1411a-4]
Giovanni Morana; Genoa/IT

» Panel discussion: Ask the expert: what is relevant for my own daily clinical practice?

14 March

Saturday, March 14, 11:15–12:30, Room M 2

RPS 1411b Stroke

[RS 1411b-M]
Charlotte Trampedach; Køge/DK

A. Imaging myelin maturation disorders

[RC 1411b-1]
Joanna Bladowska; Wroclaw/PL

B. Diagnosis and treatment of intracranial hypotension

[RC 1411b-2]
Efron Papadaki; Iraklion/GR

C. Reversible cerebral vasoconstriction syndrome (RCVS), posterior reversible encephalopathy syndrome (PRES), and others

[RC 1411b-3]
Jennifer Linn; Dresden/DE

D. Hypertension-associated brain changes

[RC 1411b-4]
Alexandre Kainik; Grenoble/FR

» Keynote lecture

Carolina Tramontini; Bogotá/CO

14 March

Saturday, March 14, 11:15–12:30, Tech Gate Auditorium

RPS 1411c New and advanced neuroimaging

[RS 1411c-M]
David Ozretić; Zagreb/HR

14 March

Saturday, March 14, 14:00–15:30, Room G

RC 1511 Update on cerebrospinal fluid (CSF) diseases

[RC 1511-M]
Zulejha Merhemic; Sarajevo/BA

A. Imaging strategies for hydrocephalus

[RC 1511-1]
Joanna Bladowska; Wroclaw/PL

B. Diagnosis and treatment of intracranial hypotension

[RC 1511-2]
Efron Papadaki; Iraklion/GR

C. Reversible cerebral vasoconstriction syndrome (RCVS), posterior reversible encephalopathy syndrome (PRES), and others

[RC 1511-3]
Jennifer Linn; Dresden/DE

D. Hypertension-associated brain changes

[RC 1511-4]
Alexandre Kainik; Grenoble/FR

14 March

Saturday, March 14, 16:00–17:30, Coffee & Talk 2

RPS 1611 Functional MRI and diffusion tensor imaging

[RS 1611-M]
Dorothee P. Auer; Nottingham/UK

**LEVEL III**

Sunday, March 15, 10:30–12:00, Studio 2020

RC 1811 State-of-the-art paediatric neuroradiology

» Chairperson's introduction

Cem Calli; Izmir/TR

A. Imaging myelin maturation disorders

Fabio M. Trulzi; Milan/IT

B. Imaging of developmental disorders

Birgit Ertl-Wagner; Toronto, ON/CA

C. Imaging in paediatric neuro-oncology

Giovanni Morana; Genoa/IT

» Panel discussion: Ask the expert: what is relevant for my own daily clinical practice?
Paediatric Courses / Research Presentation Sessions

Wednesday, March 11, 10:30–12:00, Darwin (Room D2)

RC 212 Fluoroscopy: a mainstay state of the art in paediatric radiology

» Chairperson’s introduction [RC 212-1]
Nadica Mitreska; Skopje/MK

A. Use of fluoroscopy in neonates with suspected gastrointestinal pathology [RC 212-2]
Ingegerd Aagenes; Oslo/NO

B. Gastrointestinal and other applications in the older child [RC 212-3]
Joy Barber; London/UK

C. Urogenital applications [RC 212-4]
Giulia Perucca; Turin/IT

» Panel discussion: When can ultrasonic imaging replace fluoroscopy? [RC 212-5]

Wednesday, March 11, 10:30–12:00, Room G

RPS 212 New insights in paediatric body imaging [RPS 212-1 - RPS 212-15]

Moderators: Baptiste Morel; Tours/FR [RPS 212-M]
Aikaterini Kanavaki; Athens/GR [RPS 212-M]

Wednesday, March 11, 14:00–15:30, Descartes (Room D3)

RPS 312 New insights in paediatric head and neck imaging [RPS 312-1 - RPS 312-14]

Moderators: Irena Buksakowska; Prague/CZ [RPS 312-M]
Elida Vázquez; Barcelona/ES [RPS 312-M]

Wednesday, March 11, 16:00–17:30, Room K

RC 412 Intensive care paediatric radiology: the very sick neonate

» Chairperson’s introduction [RC 412-1]
Samuel Stafrace; Doha/QA

A. Neuroimaging in the neonatal intensive care unit [RC 412-2]
Maria I. Argyropoulou; Ioannina/GR

B. Chest imaging in the ICU: tubes and catheters [RC 412-3]
Maria Luisa Lobo; Lisbon/PT

Michael Riccabona; Graz/AT

» Panel discussion: Is there a role for FAST scan in the paediatric ICU? [RC 412-5]

Thursday, March 12, 08:30–10:00, Descartes (Room D3)

RC 512 Optimising the management of children with cancer: how to improve?
Jointly organised by ESHI(MT) and ESPR

» Chairperson’s introduction [RC 512-1]
Karen Rosendahl; Bergen/NO

A. The role of SPECT and SPECT/CT [RC 512-2]
Boel Johnsen; Bergen/NO

B. Can PET/MRI replace PET/CT? [RC 512-3]
Helen Nadel; Stanford, CA/US

C. Radiation doses and patient exposure issues [RC 512-4]
Hunor Kertesz; Vienna/AT

» Panel discussion: The future direction of nuclear medicine imaging in paediatric oncology [RC 512-5]

Friday, March 13, 08:30–10:00, Room O

RC 912 Foetal imaging and postnatal correlation

» Chairperson’s introduction [RC 912-1]
Daniela Prayer; Vienna/AT

A. Foetal MRI advanced techniques [RC 912-2]
Gregor Kasprian; Vienna/AT

B. Corpus callosum anomalies: pre- and postnatal correlation [RC 912-3]
Elida Vázquez; Barcelona/ES

C. Foetal MRI of acquired brain pathology [RC 912-4]
Laurent Guibaud; Lyon/FR

D. Pre- and postnatal congenital cystic renal diseases [RC 912-5]
Fred E. Avni; Lille/FR

» Panel discussion: How to overcome the challenges in foetal MRI in routine practice and research [RC 912-6]

Friday, March 13, 11:15–12:30, Coffee & Talk 2

RPS 1012a Paediatric musculoskeletal imaging: what’s new? [RPS 1012a-1 - RPS 1012a-12]

Moderators: Ignasi Barber; Esplugues de Llobregat/ES [RPS 1012a-M]
Aikaterini Kanavaki; Athens/GR [RPS 1012a-M]
### Refresher Courses / Research Presentation Sessions

#### Paediatric Physics in Medical Imaging

**March 11**
*Wednesday, March 11, 08:30–10:00, Coffee & Talk 3*

**RPS 113** Advances in CT
(RPS 113-1 - RPS 113-15)

**Moderators:**
- Osvaldo Rampado; Turin/IT
- Natalia Saltybaeva; Zurich/CH

**March 11**
*Wednesday, March 11, 16:00–17:30, Da Vinci (Room D1)*

**RC 413** Blue skies and current trends in digital radiography (DR), computed tomography (CT) and interventional radiology (IR)

» Chairperson’s introduction: Overview of multi-front development in x-ray

**A. Updates and future perspectives to DR technology**
- Johan Sjöberg; Stockholm/SE

**B. Updates and future perspectives to CT technology**
- Juha Peltonen; Helsinki/FI

**C. Updates and future perspectives to IR and angiography technology**
- Marc Kachelrieß; Heidelberg/DE

**March 12**
*Thursday, March 12, 08:30–10:00, Room G*

**RC 513** Demystifying MRI: things you always wanted to know

**Moderator:**
- Paddy Gilligan; Dublin/IE

**A. Basic MRI: the building blocks of pulse sequences**
- Ian Robinson; Dublin/IE

**B. MRI basic concepts: how to turn signals into images**
- Andrew Webb; Leiden/NL

**C. Practical MRI: a toolkit of standard MR pulse sequences**
- Ioannis Seimenis; Alexandropolis/GR

**March 13**
*Friday, March 13, 11:15–12:30, Room F2*

**RPS 1012b** Advanced imaging in paediatric cancers
(RPS 1012b-1 - RPS 1012b-12)

**Moderators:**
- Maria Carla Calcagno; Catania/IT
- Annemieke S. Littooij; Utrecht/NL

» Keynote lecture
- Paul David Humphries; London/UK

**March 12**
*Thursday, March 12, 11:15–12:30, Room F2*

**RPS 1012b** Advanced imaging in paediatric cancers
(RPS 1012b-1 - RPS 1012b-12)

**Moderators:**
- Maria Carla Calcagno; Catania/IT
- Annemieke S. Littooij; Utrecht/NL

» Keynote lecture
- Paul David Humphries; London/UK

**March 14**
*Saturday, March 14, 16:00–17:30, Room G*

**RC 1612** Imaging in abdominal emergencies: an (evidence-based) update

**Moderator:**
- Charlotte E. de Lange; Oslo/NO

**A. The acute abdomen in neonates**
- Ana Coma; Barcelona/ES

**B. The acute abdomen in young children**
- Alistair D. Calder; London/UK

**C. Polytrauma: differences between adult and paediatric protocols**
- Cornelia J.L. Eriksen; Oslo/NO

**March 15**
*Sunday, March 15, 10:30–12:00, Da Vinci (Room D1)*

**RC 1812** Imaging of frequent queries in children: an evidence-based approach

» Chairperson’s introduction
- Stéphanie Franchi-Abella; Le Kremlin-Bicêtre/FR

**A. Abdominal pain: constipation and beyond**
- Ian Robinson; Dublin/IE

**B. Respiratory tract infections**
- Pierluigi Ciet; Rotterdam/NL

**C. Large and small heads: when and how to image**
- Ümit Yaşar Ayaz; Mersin/TR

**D. The limping child**
- Ignasi Barber; Esplugues de Llobregat/ES

» Panel discussion: The requisites for usual paediatric indications

**March 16**
*Saturday, March 16, 16:00–17:30, Room D1*

**RC 1612** Imaging in abdominal emergencies: an (evidence-based) update

**Moderator:**
- Charlotte E. de Lange; Oslo/NO

**A. The acute abdomen in neonates**
- Ana Coma; Barcelona/ES

**B. The acute abdomen in young children**
- Alistair D. Calder; London/UK

**C. Polytrauma: differences between adult and paediatric protocols**
- Cornelia J.L. Eriksen; Oslo/NO

**March 12**
*Thursday, March 12, 08:30–10:00, Room G*

**RC 513** Demystifying MRI: things you always wanted to know

**Moderator:**
- Paddy Gilligan; Dublin/IE

**A. Basic MRI: the building blocks of pulse sequences**
- Ian Robinson; Dublin/IE

**B. MRI basic concepts: how to turn signals into images**
- Andrew Webb; Leiden/NL

**C. Practical MRI: a toolkit of standard MR pulse sequences**
- Ioannis Seimenis; Alexandropolis/GR

**March 12**
*Thursday, March 12, 11:15–12:30, Coffee & Talk 3*

**RPS 613** Artificial intelligence (AI) revising the physics in medical imaging
(RPS 613-1 - RPS 613-12)

**Moderators:**
- Kirsten Nygaard Bolstad; Bergen/NO
- Laure Fourrier Pompidou; Paris/FR
Physics in Medical Imaging

Thursday, March 12, 14:00–15:30, Room N

RC 713  Current and future trends in personalised clinical dosimetry

» Chairperson's introduction  [RC 713-1]
Eleni Samara; Sion/CH

A. Breast imaging dosimetry  [RC 713-2]
Ioannis Sechopoulos; Nijmegen/NL

B. Patient dosimetry in CT  [RC 713-3]
Sue Edyvean; London/UK

C. Patient dosimetry in cone beam computed tomograph (CBCT)  [RC 713-4]
Ruben Pauwels; Leuven/BE

D. Patient dose in fluoroscopy and interventional radiology  [RC 713-5]
Annalisa Trianni; Udine/IT

» Panel discussion: The future of patient-specific dosimetry  [RC 713-6]
This session is part of the EuroSafe Imaging campaign.

Friday, March 13, 08:30–10:00, Da Vinci (Room D1)

RC 913  Radiation dose monitoring systems (RDMS): from commissioning to effective use

» Chairperson's introduction: RDMS: big data and tons of information  [RC 913-1]
Virginia Tsapaki; Athens/GR

A. Supply and commissioning of an RDMS to meet all your needs  [RC 913-2]
Niki Fitousi; Leuven/BE

B. How to manage the data and extract the relevant information  [RC 913-3]
Osvaldo Rampado; Turin/IT

C. Monitoring and analysis of patients with high cumulative risks  [RC 913-4]
Jenia N. Vassileva; Vienna/AT

» Panel discussion: Are RDMS useful to share data between the main players in the optimisation process?  [RC 913-5]
This session is part of the EuroSafe Imaging campaign.

Friday, March 13, 11:15–12:30, Studio 2020

RPS 1013  Advances in MRI

[RPS 1013-1 – RPS 1013-11]

Moderators: Ioannis Seimenis; Alexandropolis/GR
[RPS 1013-M]

» Keynote lecture  [RPS 1013-K]
David J. Lurie; Aberdeen/UK

Friday, March 13, 14:00–15:30, Coffee & Talk 1

RPS 1113  Improving quality to build safety

[RPS 1113-1 – RPS 1113-13]

Moderators: Paddy Gilligan; Dublin/IE
[RPS 1113-M]
Lucie Sukupova; Prague/CZ
[RPS 1113-M]

» Keynote lecture  [RPS 1113-K]
Harry Delis; Vienna/AT

Saturday, March 14, 14:00–15:30, Da Vinci (Room D1)

RC 1513  Striking the balance: image quality assessment in radiological optimisation

» Chairperson's introduction: The big picture: can we be objective about image quality?  [RC 1513-1]
Mika Kortesniemi; Helsinki/FI

A. From signal to image: the basics of image quality assessment  [RC 1513-2]
Alistair Mackenzie; Guildford/UK

B. Between a ROC(k) and a hard place: methods of determining clinical image quality  [RC 1513-3]
Owen J. O'Connor; Cork/IE

C. Bridging the gap between physical and clinical image quality  [RC 1513-4]
Christoph Hoeschen; Magdeburg/DE

» Panel discussion: Can we balance image quality and dose needs in an objective manner?  [RC 1513-5]
This session is part of the EuroSafe Imaging campaign.

Sunday, March 15, 08:30–10:00, Room N

RC 1713  Dose management in paediatric radiology

» Chairperson's introduction  [RC 1713-1]
Colm Saidléar; Dublin/IE

A. The special case of the paediatric patient: risks and justification  [RC 1713-2]
Catherine Owens; Doha/QA

B. Between a ROC(k) and a hard place: methods of determining clinical image quality  [RC 1713-3]
Owen J. O'Connor; Cork/IE

C. Bridging the gap between physical and clinical image quality  [RC 1713-4]
Christoph Hoeschen; Magdeburg/DE

» Panel discussion: Paediatric dose management: are we doing enough for the next generation?  [RC 1713-5]
This session is part of the EuroSafe Imaging campaign.
Wednesday, March 11, 08:30–10:00, Darwin (Room D2)

**RC 114** The role of radiographers in ensuring quality in practice

» Chairpersons’ introduction
   - Jiří Ferda; Plzeň/CZ  [RC 114-1]
   - Dean Pekarovic; Ljubljana/SI  [RC 114-2]
A. The radiographers’ role in justification  [RC 114-3]
   - Paul Bezzina; Msida/MT
B. Quality assurance to guarantee safe and secure procedures  [RC 114-4]
   - Marie-Louise Ryan; Dublin/IE
C. Multimodality intervention: the importance of a quality culture  [RC 114-5]
   - Madeline Halbwachs; Strasbourg/FR

» Panel discussion: Monitoring and ensuring quality: the professional role of radiographers  [RC 114-6]

*This session is part of the EuroSafe Imaging campaign.*

Wednesday, March 11, 10:30–12:00, Room M 1

**RC 214** The role of medical imaging in radiotherapy

» Chairpersons’ introduction
   - Charlotte Beardmore; London/UK  [RC 214-1]
   - Kostya Galumyan; Yerevan/AM  [RC 214-2]
A. CT and MRI in treatment and planning  [RC 214-3]
   - José Guilherme Couto; Msida/MT
B. Role of imaging in positioning verification  [RC 214-4]
   - Alexander Raith; Vienna/AT
C. The radiographers’ role in radiation planning and dosimetry  [RC 214-5]
   - Nuno Rodrigues; Melres/PT

» Panel discussion: The future role of radiographers in radiotherapy treatment and planning: opportunities for the advancement of roles  [RC 214-6]

Wednesday, March 11, 16:00–17:30, Descartes (Room D3)

**RC 414** Practical magnetic resonance imaging tips for radiographers

» Chairpersons’ introduction
   - Andrei I. Holodny; New York, NY/US  [RC 414-1]
   - Vasilis Syrgiamiotis; Athens/GR  [RC 414-2]
A. Practical tips to optimise your examinations at 3 Tesla  [RC 414-3]
   - Janez Podobnik; Ljubljana/SI
B. Practical tips in paediatric MRI  [RC 414-4]
   - Ulrike Weinberger; Vienna/AT
C. What is new in MRI safety?  [RC 414-5]
   - Vítor Silva; Porto/PT

» Panel discussion: How can we ensure MRI radiographers keep up to date with evolving safety requirements?  [RC 414-6]

Wednesday, March 11, 10:30–12:00, Room X

**RPS 214** Image quality considerations and challenges: radiography and mammography  [RPS 214-1 – RPS 214-15]

Moderators: Ulrich Bick; Berlin/DE  [RPS 214-M]
   - Karen Borg Grima; Msida/MT  [RPS 214-M]

Thursday, March 12, 12:15–12:30, Room K

**RPS 614** Computed tomography: examination improvement  [RPS 614-1 – RPS 614-17]

Moderators: Shane J. Foley; Dublin/IE  [RPS 614-M]
   - Tetyana Yalynska; Kiev/UA  [RPS 614-M]

» Keynote lecture  [RPS 614-K]
   - Francis Zarb; Msida/MT

Thursday, March 12, 14:00–15:30, Studio 2020

**RPS 714** Hot topics in computed tomography and radiotherapy practice  [RPS 714-1 – RPS 714-15]

Moderators: Jarmo Reponen; Oulu/FI  [RPS 714-M]
REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS

Radiographers

13 March  
Friday, March 13, 11:15–12:30, Room F1
RPS 1014a  Radiographer role and professional challenges  
[RPS 1014a-1 – RPS 1014a-12]

Moderators: Graciano Paulo; Coimbra/PT  
Małgorzata Szczero-Trojanowska; Lublin/PL  
[RPS 1014a-M]

13 March  
Friday, March 13, 11:15–12:30, Room Y
RPS 1014b  An array of applications: ultrasound and dual-energy x-ray absorptiometry  
[RPS 1014b-1 – RPS 1014b-12]

Moderators: Therese Herlihy; Dublin/IE  
Eva Llopis; Valencia/ES  
[RPS 1014b-M]

14 March  
Saturday, March 14, 11:15–12:30, Darwin (Room D2)
RPS 1414  Improving magnetic resonance imaging practice  
[RPS 1414-1 – RPS 1414-11]

Moderators: Ruzica Maksimović; Belgrade/RS  
Vasilis Syrgiamiotis; Athens/GR  
[RPS 1414-M]

14 March  
Saturday, March 14, 16:00–17:30, Descartes (Room D3)
RC 1614  Practical computed tomography tips for radiographers

» Chairpersons’ introduction  
Haris Huseinagic; Tuzla/BA  [RC 1614-1]  
Joana Santos; Coimbra/PT  [RC 1614-2]

A. The practical implications of CT scanner development: where we have come from and where we are now  
Dejan Hribar; Ljubljana/SI  [RC 1614-3]

B. Practical tips for radiographers in CT scanning of the thorax and abdomen  
Svea Deppe Mørup; Odense/DK  [RC 1614-4]

C. Practical tips for radiographers when scanning paediatric imaging  
Berit Moeller Christensen; Jönköping/SE  [RC 1614-5]

» Panel discussion: How can we ensure CT radiographers keep up to date with changes in CT technology?  
[RC 1614-6]

15 March  
Sunday, March 15, 08:30–10:00, Coffee & Talk 1
RPS 1714  Medical imaging challenges: nuclear medicine and radiography  
[RPS 1714-1 – RPS 1714-15]

Moderators: Tobias Bäuerle; Erlangen/DE  
Desiree O’Leary; Newcastle/UK  
[RPS 1714-M]

15 March  
Sunday, March 15, 08:30–10:00, Darwin (Room D2)
RC 1714  Leadership and management in radiography

» Chairpersons’ introduction  
Florin Birsasteanu; Timisoara/RO  [RC 1714-1]  
Tina Starc; Ljubljana/SI  [RC 1714-2]

A. Effective communication: a key leadership and management tool  
Julie Michelle Nightingale; Sheffield/UK  [RC 1714-3]

B. Leading change: key considerations and tools to motivate radiography teams in quality management  
Zinaida Läänelaid; Tartu/EE  [RC 1714-4]

C. Inclusive leadership: equality, diversity and inclusion  
Louise A. Rainford; Dublin/IE  [RC 1714-5]

» Panel discussion: Developing future radiographer leaders: what support do current clinical and academic leaders need?  
[RC 1714-6]

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March 11
Wednesday, March 11, 10:30–12:00, Room M 3
RC 215 Venous thrombotic disease [LEVEL III]
» Chairperson’s introduction [RC 215-1]
Miltiadis Krokidis; Cambridge/UK
A. Acute deep vein thrombosis: diagnosis, interventional radiology (IR) treatment and outcomes [RC 215-2]
Geert Maleux; Leuven/BE
B. Diagnosis and treatment of central venous occlusions [RC 215-3]
Salah D. Qanadli; Lausanne/CH
C. Chronic deep vein thrombosis: diagnosis, IR treatment and outcomes [RC 215-4]
Romaric Loffroy; Dijon/FR
» Panel discussion: Should emergency treatment for deep vein thrombosis become part of IR service? [RC 215-5]

March 12
Thursday, March 12, 11:15–12:30, Room X
RPS 615 CT in vascular imaging [LEVEL II]
[RPS 615-1 – RPS 615-11]
Moderators: Vasileios Rafailidis; Thessaloniki/GR [RPS 615-M]
» Keynote lecture [RPS 615-K]
Maija Radzina; Riga/LV

March 13
Friday, March 13, 14:00–15:30, Coffee & Talk 2
RPS 1115 Pulmonary arteries, veins, aorta, carotid and lymphatics [LEVEL II]
[RPS 1115-1 – RPS 1115-15]
Moderators: Aad van der Lugt; Rotterdam/NL [RPS 1115-M]

March 14
Saturday, March 14, 11:15–12:30, Room X
RPS 1415 Advances in vascular imaging [LEVEL II]
[RPS 1415-1 – RPS 1415-12]
Moderators: Udo Hoffmann; Boston, MA/US [RPS 1415-M]
Rüdiger Schernthaner; Vienna/AT [RPS 1415-M]

March 14
Saturday, March 14, 14:00–15:30, Descartes (Room D3)
RC 1515 No time to lose: aortic disease, revisited [LEVEL III]
Moderator: Tomasz Jargiello; Lublin/PL [RC 1515-M]
A. Diagnosis and treatment of abdominal aortic aneurysms [RC 1515-1]
Florian Wolf; Vienna/AT
B. Acute diagnosis and imaging in aortic dissection [RC 1515-2]
Roberto Iezzi; Rome/IT
C. Endovascular treatment in aortic dissection [RC 1515-3]
Jost Philipp Schäfer; Kiel/DE

March 15
Sunday, March 15, 10:30–12:00, Room G
RPS 1815 MR in vascular imaging [LEVEL III]
[RPS 1815-1 – RPS 1815-13]
Moderators: Maria Luisa Biscoito; Lisbon/PT [RPS 1815-M]
Stefan Haneder; Cologne/DE [RPS 1815-M]
» Keynote lecture [RPS 1815-K]
Maija Radzina; Riga/LV

March 15
Sunday, March 15, 10:30–12:00, Room M 2
RC 1815 Carotid disease 2.0 [LEVEL III]
Moderator: Viktor Bérczi; Budapest/HU [RC 1815-M]
A. Carotid plaque imaging: tool or fool? [RC 1815-1]
Luca Saba; Cagliari/IT
B. Carotid Involvement in inflammatory arterial disease [RC 1815-2]
António J.B.S. Madureira; Porto/PT
C. Carotid stent: medical history or part of the future? [RC 1815-3]
Klaus A. Hausegger; Klagenfurt/AT
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March 11
Wednesday, March 11, 08:30–10:00, Room O

RPS 116 Oncologic imaging in genitourinary: kidney and prostate, advanced topics
(RPS 116-I - RPS 116-13)

Moderators: Giulia Frauenfelder; Rome/IT
Heinz-Peter Schlemmer; Heidelberg/DE

» Keynote lecture [RPS 116-K]
Hedvig Hricak; New York, NY/US

March 11
Wednesday, March 11, 14:00–15:30, Room F1

RC 316 Peritoneal carcinomatosis: the role of imaging in detection and treatment planning?

Moderator: Max J. Lahaye; Amsterdam/NL [RC 316-M]

A. Detection and characterisation: tips and tricks [RC 316-I]
Laure S. Fournier; Paris/FR

B. Surgical view: citoreductive surgery [RC 316-2]
Anne-Sophie Bats; Paris/FR

C. Imaging in treatment planning and follow-up [RC 316-3]
Giulia Zamboni; Verona/IT

March 12
Thursday, March 12, 11:15–12:30, Room M 3

RC 816 Role of imaging in cancer of unknown primary (CUP)

Moderator: Nikoleta I. Traykova; Plovdiv/BG [RC 816-M]

A. CT: the useful report [RC 816-I]
Sofia Gourtsoyianni; Athens/GR

B. MRI with diffusion weighted imaging (DWI) and dynamic contrast-enhancement (DCE) [RC 816-2]
Amwar R. Padhani; London/UK

C. Nuclear medicine: (PET/CT, PET/MRI, novel tracers) [RC 816-3]
Tobias Bäuerle; Erlangen/DE

D. Unknown primary: emerging challenges for imaging and the importance of integrated diagnostics [RC 816-4]
Hedvig Hricak; New York, NY/US

March 12
Thursday, March 12, 16:00–17:30, Room M 3

RPS 916 Brain, head and neck tumours: advanced imaging and radiomics [RPS 916-1 – RPS 916-12]

Moderators: Christoph Stippich; Zurich/CH [RPS 916-M]
Giuseppe Zanirato Rambaldi; Bologna/IT [RPS 916-M]

» Keynote lecture [RPS 916-K]
Alexander Radbruch; Heidelberg/DE

March 13
Friday, March 13, 08:30–10:00, Room M 3

RPS 1016 Breast and gynecologic advanced imaging and radiomics [RPS 1016-1 – RPS 1016-11]

Moderators: Ravikanth Balaji; Chennai/IN [RPS 1016-M]
Valeria Romeo; Naples/IT [RPS 1016-M]

» Keynote lecture [RPS 1016-K]
Viera Lehotská; Bratislava/SK

March 13
Friday, March 13, 11:15–12:30, Room X

RPS 1416a Chest malignancies: advanced imaging and radiomics [RPS 1416a-1 – RPS 1416a-12]

Moderators: Theresa C. McLoud; Boston, MA/US [RPS 1416a-M]
Iryna Vasylyiv; Kiev/UA [RPS 1416a-M]
Oncologic Imaging

**Saturday, March 14, 11:15–12:30, Room M 3**

**RPS 1416b**

Multiple myeloma and lymphoma: advanced imaging and radiomics

[RPS 1416b-2 – RPS 1416b-12]

**Moderators:** Olwen Westerland; London/UK

[RPS 1416b-M]

**Saturday, March 14, 14:00–15:30, Studio 2020**

**RPS 1516**

Gastrointestinal and pancreatic advanced imaging and radiomics in oncology

[RPS 1516-1 – RPS 1516-15]

**Moderators:** Georgios Kaisissis; Munich/DE

[RPS 1516-M]

Siarhei Kharuzhyk; Minsk/BY

[RPS 1516-M]

**Sunday, March 15, 08:30–10:00, Descartes (Room D3)**

**RC 1716**

Tumour response assessment in abdominal imaging

**Moderator:** Olga V. Kucheruk; Moscow/RU

[RCS 1716-M]

**A. Size-based assessment: metrics and pitfalls**

Melvin D’Anastasi; Msida/MT

[RC 1716-1]

**B. Diffusion weighted imaging (DWI) and dynamic contrast-enhancement (DCE): opportunities**

Dow-Mu Koh; Sutton/UK

[RC 1716-2]

**C. Nuclear medicine and molecular approaches**

Clemens C. Cyran; Munich/DE

[RC 1716-3]

**D. Immunotherapy and imaging**

Daniele Regge; Turin/IT

[RC 1716-4]

**Sunday, March 15, 10:30–12:00, Room F2**

**RPS 1816**

Liver tumours: advanced imaging, radiomics and treatment effects

[RPS 1816-1 – RPS 1816-15]

**Moderators:** Joao Amorim; Porto/PT

[RPS 1816-M]

Joachim Kettenbach; St. Pölten/AT

[RPS 1816-M]
Emergency Imaging

**Thursday, March 12, 16:00–17:30, Room K**

**RC 817** Why do I miss fractures in emergency?

- **Chairperson’s introduction** [RC 817-1]
  Stefan Wirth; Munich/DE
- **A. Missed fractures in children** [RC 817-2]
  Karl J. Johnson; Birmingham/UK
- **B. Missed fractures in adults** [RC 817-3]
  Seema Döring; Brussels/BE
- **C. Missed musculoskeletal injuries in whole-body trauma** [RC 817-4]
  Alexandra Platon; Geneva/CH

  **Panel discussion:** How to reduce the rate of missed fractures most effectively and efficiently  [RC 817-5]

**Friday, March 13, 11:15–12:30, Room E**

**RPS 1017** Pulmonary embolism and other

- **Moderators:** Zbigniew Serafin; Bydgoszcz/PL
  [RPS 1017-M]
- **Keynote lecture** [RPS 1017-K]
  Galit Aviram; Tel Aviv/IL

**Friday, March 13, 14:00–15:30, Da Vinci (Room D1)**

**RPS 1117** Abdomen and brain

- **Moderators:** Ana Blanco Barrio; Murcia/ES
  [RPS 1117-M]
  Francesco Macri; Nîmes/FR
  [RPS 1117-M]
- **Keynote lecture** [RPS 1117-K]
  Irina Arkhipova; Moscow/RU

**Friday, March 13, 14:00–15:30, Darwin (Room D2)**

**RC 1117** Complications of endovascular interventions

- **Moderator:** Maria Cristina Firetto; Milan/IT  [RC 1117-M]
- **A. Complications in thoracic and abdominal endovascular aneurysm procedures** [RC 1117-1]
  Robert Morgan; London/UK
- **B. Imaging and management of complication of peripheral arterial revascularisation** [RC 1117-2]
  Michael J. Lee; Dublin/IE
- **C. Imaging appearance of typical complications after liver embolisation: what is normal and what needs to be reported** [RC 1117-3]
  Thomas J. Kroencke; Augsburg/DE

**Saturday, March 14, 08:30–10:00, Da Vinci (Room D1)**

**RC 1317** Imaging of ‘foreign bodies’

- **Chairperson’s introduction** [RC 1317-1]
  Johann Baptist Dormagen; Oslo/NO
- **A. Surgical and orthopaedic devices: are they really properly positioned?** [RC 1317-2]
  Elizabeth Dick; London/UK
- **B. Did I swallow that? US and CT of sharp foreign bodies penetrating stomach and bowel** [RC 1317-3]
  Julien B.C.M. Puylaert; The Hague/NL
- **C. The role of interventional radiology in the management of foreign bodies and following complications** [RC 1317-4]
  Henrik Leonhardt; Gothenburg/SE

  **Panel discussion:** Common language with clinicians: how to report ‘foreign bodies’ presence and indicate the optimal management  [RC 1317-5]

**Saturday, March 14, 16:00–17:30, Room B**

**RC 1617** Blunt polytrauma: CT protocols, CT interpretation and interventional radiology options

- **Chairperson’s introduction** [RC 1617-1]
  Koenraad H. Nieboer; Brussels/BE
- **A. CT protocols in blunt polytrauma** [RC 1617-2]
  Elika Kashef; London/UK
- **B. Solid organs injuries: a tailored approach** [RC 1617-3]
  Michael Patlas; Hamilton, ON/CA
- **C. Interventional radiology in trauma: diagnosis and management** [RC 1617-4]
  Tomasz Jargiello; Lublin/PL

  **Panel discussion:** What is the best CT protocol in the evaluation of blunt trauma patients?  [RC 1617-5]

**Sunday, March 15, 10:30–12:00, Room M 3**

**RC 1817** Acute conditions in the elderly

- **Chairperson’s introduction** [RC 1817-1]
  N.N.
- **A. Confusion in the elderly: what can we expect in imaging of acute conditions?** [RC 1817-2]
  Mateusz Wykretowicz; Poznan/PL
- **B. Grandparent has a high fever and thoracic/abdominal pain** [RC 1817-3]
  Ingrid Millet; Montpellier/FR
- **C. Postoperative complications in the elderly** [RC 1817-4]
  Francesca Iacobellis; Naples/IT

  **Panel discussion:** Imaging of the elderly patient: A forgotten task?  [RC 1817-5]
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Students will present their work

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**S 7**

**Thursday, March 12, 14:00–15:30, Room X**

My educational or social project at my university

**Moderator:** Christian Stroszczynski; Regensburg/DE

- A simplified method to estimate the energy spectrum for the megavoltage photon beams by monoenergetic depth dose library  
  Puspen Chakraborty; Tokyo/JP

- Reduction of the microwave ablation needle related metallic artifacts from virtual monoenergetic images using dual-layer detector spectral CT in rabbit VX2 hepatocellular carcinoma models  
  Guorong Wang; Beijing/CN

- Missed lung cancers on radiographs and CT  
  Åse Lyslo; Bergen/NO

- Fully automated quantification of left ventricular volumes and function in cardiac MRI: an evaluation of a deep learning-based algorithm  
  Benjamin Böttcher; Rostock/DE

- Diagnostic accuracy of regadenoson perfusion cardiac magnetic resonance imaging in individuals with known or suspected coronary artery disease  
  Andoni Azcona; Zizur Mayor/ES

- Establishment of a student sonography course – from zero to over 1000 in 2.5 years  
  Lukas Müller; Mainz/DE

- Is gadolinium enhanced imaging necessary in the surveillance of non-operated cranial meningiomas?  
  Kathryn Twentyman; Leeds/UK

- 3D printed models: the new revolutionary tool in medical education  
  Andrei Constantinescu; Voluntari/RO

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**S 8**

**Thursday, March 12, 16:00–17:30, Room X**

My scientific paper in the field of dose optimisation, abdominal imaging, Doppler ultrasound and musculoskeletal imaging

**Moderator:** Luca M. Sconfienza; Milan/IT

- Coronary calcium scoring at 100 kV with tin filtration using a kV-independent reconstruction kernel  
  Rock Savage; Charleston, SC/US

- Evaluation of a tube voltage-tailored contrast media injection protocol for coronary CT angiography  
  Rock Savage; Charleston, SC/US

- Interventional cardiology: patient exposure to radiation and interoperator variability — a healthcare group investigation  
  Joseph Anderson; Ballonggan/IE

- Scattered radiation in mobile chest AP in ICU  
  Minja Antikainen; Oulu/FI

- Convolutional neural network-based volumetric segmentation of the liver compared with semiautomatic and manual methods  
  Bettina Budai; Budapest/HU

- Split-bolus and single-pass CT of the abdominal district  
  Alessia Missere; Naples/IT

- Vascular activity in rotator cuff tendinopathy: evaluation with conventional Doppler ultrasound and superb microvascular imaging (SMI)  
  Kai Qi Teng; Singapore/SG

- Body composition in elderly lung transplantation recipients assessed by pre-transplantation computed tomography scans predicts outcome after lung transplantation  
  Daria Kifjak; Vienna/AT
Students will present their work

**S 11**

**Friday, March 13, 14:00–15:30, Room X**

**My scientific paper in the field of neuroimaging**

**Moderator:** Dragos Negru; Iasi/RO (S 11-M)

- Direct detection of metabolic changes in rat brain slices during perfusion arrest: implications for imaging of cerebral ischaemia with hyperpolarised MR (S 11-1)
  - David Shaul; Jerusalem/IL

- Evaluation of the diagnostic role of shear-wave elastography in patients with carpal tunnel syndrome (S 11-2)
  - Seyed Arman Seyed Mokhtari; Tabriz/IR

- Time-depended cardiovascular effects of intra-arterial milrinone and nimodipine application in cerebral vasospasm (S 11-3)
  - Jennifer Jentzsch; Leipzig/DE

- The treatment of wide-necked bifurcation aneurysms with the use of pCONus device and its complications. A meta-analysis (S 11-4)
  - Kamil Krupa; Krakow/PL

- Stenting of intracranial stenosis in acute stroke-single center experience from the last decade (S 11-5)
  - Marie-Sophie Schüngel; Leipzig/DE

- Patient feedback on consenting process for radiologically guided interventional procedures (S 11-6)
  - Hawwa Iqbal; Leeds/UK

- Tibial nerve caliber in MR neurography is negatively correlated with conduction velocities and compound motor action potentials in patients with diabetic neuropathy (S 11-7)
  - Lukas Schimpfle; Heidelberg/DE

- Introducing medical students into functional MRI and neuroscience research; myopia may induce changes in visual cortex activation (S 11-8)
  - Nicolás Rodríguez Albacete; Murcia/ES

**S 16**

**Saturday, March 14, 16:00–17:30, Room X**

**My scientific paper in the field of oncologic imaging**

**Moderator:** Panos K. Prassopoulos; Thessaloniki/GR (S 16-M)

- Comparison of hydrochloric acid infusion radiofrequency ablation with microwave ablation in an ex vivo liver model (S 16-1)
  - Hanxia Deng; Guangzhou/CN

- Review of the clinical effectiveness of PET-CT scans in the management of sub-solid pulmonary lesions at the Oxford Lung Cancer MDT in the last 5 years (S 16-2)
  - Marta Rinaldi; L’Aquila/IT

- CT texture analysis in PET-negative lung cancer (S 16-3)
  - Julia Daffinà; Rome/IT

- MRI bias correction with an implicitly trained convolutional neural network (S 16-4)
  - Attila Simkó; Umeå/SE

- Pancreatic ductal adenocarcinoma: rim enhancement at CT imaging predicts histologic grade (S 16-5)
  - Mariia Shantarevich; Moscow/RU

- Determinants of ADC in the bone marrow of healthy individuals: effects of sex, age and fat fraction (S 16-6)
  - Luca Bombelli; Milan/IT

- Radiomics signature of the human papillomavirus (HPV) status in oropharyngeal squamous cell carcinoma (OPSCC) (S 16-7)
  - Stefan Haider; New Haven, CT/US

- Repeatability of quantitative WB-MRI analysis in patients with bone metastases (S 16-8)
  - Giulia Saia; Milan/IT
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MY THESIS IN 3 MINUTES

Now running for its third year, ECR 2020 again features this entertaining scientific session format where speakers share their scientific theses in just three minutes! These sessions are an excellent way to sample the variety of research taking place in the world of radiology and radiography.

Places are allocated on a first-come, first-served basis.
MY THESIS IN 3 MINUTES

Wednesday, March 11, 10:30–12:00, Room Y

MyT3 2 Breast

Moderators: Ioana-Andreea Gheonea; Craiova/RO [MyT3 2-M] Sophia Zackrisson; Malmö/SE [MyT3 2-M]

» Axillary lymph node status in BIRADS 4-5 female patients: a management cornerstone: Can ultrasound elastography help? [MyT3 2-1]
S. T. Hamed, O. M. M. Nada, O. Zakaria, D. Elmesidy, M. A. G. A. M. Eissa; Cairo/EG

» Mammographic density and risk factors collected by direct interview in breast interval and screen-detected cancers [MyT3 2-2]
L. La Corte1, L. Baglietto1, D. Caramella1, C. Iacconi1, S. Atzori1, Pisa/IT, Carrara/IT

» MRI and PET/CT in parallel for the detection of axillary lymph node metastases in breast cancer patients: a meta-analysis [MyT3 2-3]
X. Zhang, H. Luo, J. Zhang, Y. Liu; Chengdu/CN

» A preliminary study of the combination of ultrafast and abbreviated dynamic contrast-enhanced breast MRI [MyT3 2-4]
S. Jeong, S. M. Ha, H. S. Ahn, S. Woo, H.-C. Shin; Seoul/KR

» Missed breast lesions in mammography: what factors are we overlooking? [MyT3 2-5]
M. Malik; Islamabad/PK

» Breast lesions of uncertain malignant potential (B3): can different vacuum-assisted biopsy needles (11G vs 8G) affect the outcome? [MyT3 2-6]
A. Francoreni1, C. Bellini2, G. Bicchiera1; D. de Benedetto2, D. Di Naro2, J. Nori2, V. Miele2; Pavia/IT, Florence/IT

» Breast arterial calcification on mammography does not predict coronary artery disease on invasive coronary angiography [MyT3 2-7]
A. Fatihal; Riyadh/SA

» Diagnostic performance of unenhanced T2-weighted and IVIM DW MRI for axillary lymph nodal staging in breast cancer [MyT3 2-8]
Y. Liu, H. Luo, C. Wang, M. Wang, J. Ren; Chengdu/CN

» Role of ultrasound vs contrast-enhanced mammography in the characterisation of lesions in dense breasts [MyT3 2-9]
R. R. M. Abdel Gawad; Cairo/EG

» Outcome of B3 breast lesions with 14G needle core biopsy (NCB): 18-years monocentric experience [MyT3 2-10]
C. Bellini1, A. Francoreni1, G. Bicchiera1, D. de Benedetto1, D. Di Naro1, J. Nori1, V. Miele1; Florence/IT, Pavia/IT

W. Wang, J. Cheng; Zhengzhou/CN

» Digital breast tomosynthesis-guided vacuum-assisted breast biopsy (DBT-VABB): comparing two different ways of local anaesthesia administration [MyT3 2-12]
M. A. Orsi, F. Leone, M. Cellina, G. Oliva; Milan/IT

» Breast’s density and CAD: could a suspicious lesion change the assessment of computer-aided detection? A retrospective study [MyT3 2-13]
F. Leone, M. A. Orsi, M. Cellina, G. Oliva; Milan/IT

» Value of machine learning with MRI radiomics for early prediction of pathological complete response to neoadjuvant chemotherapy in HER2-positive invasive breast cancer [MyT3 2-14]
L. Qin, G. Yajia; Shanghai/CN

» Ultrasonographical evaluation of BI-RADS* 4 breast injuries and their histological correlation [MyT3 2-15]
L. L. Ospino Ortiz1, A. P. Ortiz Gomez2; Rio de Janeiro/BR, Petropolis/BR

» In-vivo measurements of ADC of invasive ductal breast cancer: a multicentric study to assess the quality of DWI protocols in breast MRI at 1.5T [MyT3 2-16]
S. Atzori1, L. Baglietto1, M. Fornili1, D. della Latta2, D. Caramella1, C. Iacconi3; Pisa/IT, Massa/IT, Carrara/IT

» The use of digital breast tomosynthesis in the surveillance of breast cancer patients following breast conservative surgery [MyT3 2-17]
S. Ahmed, R. Hassan; Assiut/EG

» Missed breast lesions in mammography: what factors are we overlooking? [MyT3 2-5]
M. Malik; Islamabad/PK

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W. Wang, J. Cheng; Zhengzhou/CN

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W. Wang, J. Cheng; Zhengzhou/CN
Clinical applications of partial splenic artery embolisation [MyT3 4-1]
A. M. Teama; Kafrelsheikh/EG

Endovascular management of cerebral arteriovenous malformations [MyT3 4-2]
M. T. N. Mekhail1, A. Bessar1, T. Elserafy1, M. Teama1, F. Youssef2; 1Zagazig/EG, 2Cairo/EG

Evaluating the vessel wall permeability of abdominal aortic aneurysm using 3D dynamic contrast-enhanced MRI [MyT3 4-3]
B. Tian, X. Tian, Z. Shi, J. Lu; Shanghai/CN

Evaluation of different keV-settings in dual-energy CT angiography of the siphon of internal carotid artery using noise-optimised virtual monoenergetic imaging [MyT3 4-4]
J. Fu, Y. Zeng, J. Zhang; Shanghai/CN

The use of near-infrared spectroscopy (NIRS) to measure vascular haemodynamics within bone tissue in vivo [MyT3 4-5]
R. Meertens, K. Knapp, F. Casanova, W. D. Strain; Exeter/UK

How we see congenital portosystemic shunts through CT-angiography [MyT3 4-6]
M. Akyuz1, I. Akdulum1, M. Öztürk2, Ö. L. Boyunağa3, A. Sigirci4; 1Ankara/TR, 2Aksaray/TR, 3Malatya/TR

Resting-state functional connectivity in patients with asymptomatic stenoses of the internal carotid arteries [MyT3 4-7]
A. Lepekhina; St. Petersburg/ RU

Angiographic analysis on posterior fossa haemorrhages and vascular malformations using computed tomographic angiography and digital subtraction angiography [MyT3 4-8]
V. Selvamurugan, V. Singh, R. V. Phadke, Z. Neyaz; Lucknow/IN

A multidisciplinary approach to the diagnosis and treatment of kaposiform hemangioendothelioma in newborn children [MyT3 4-9]
S. Riebienkov, I. Benzar; Kiev/UA

Diagnostic yield of CT angiography in penetrating lower extremity trauma [MyT3 4-10]
A. P. Le Roux, A.-M. Du Plessis, R. D. Pitcher; Cape Town/ZA

Optimisation of window settings on traditional and noise-optimised virtual monoenergetic imaging for displaying intracranial arterial aneurysm in dual-energy CT angiography [MyT3 4-11]
Y. Zeng, X. Cao, H. Li, J. Fu, J. Zhang; Shanghai/CN

Comparison of moving bed contrast-enhanced MR angiography vs digital subtraction angiography in peripheral arterial disease [MyT3 4-12]
E. Ozquil; Afyonkarahisar/TR

Quality control studies of dynamic contrast-enhanced 3-dimensional magnetic resonance angiography for spinal vascular [MyT3 4-13]
J. Cao, L.-L. Cui; Shenyang/CN

Contrast-enhanced perfusion patterns and serum lipid signatures specific of vulnerable plaque in predicting stroke: a cohort study of carotid stenosis in Chinese patients [MyT3 4-14]
H. Yunqian, W. Zhu, M. Chen; Shanghai/CN

Non-contrast MR venography in the diagnosis of post-thrombotic iliac vein obstruction and extravascular compression [MyT3 4-15]
V. Shebryakov, O. Karpov, Y. Stoyko, O. Bronov, M. Yashkin, D. Lutherovich; Moscow/ RU

Carotid stenosis evaluation by 128-slice CT: comparison of NASCET, ECST and CC grading methods, and comparison with colour-Doppler ultrasonography [MyT3 4-16]
F. M. H. Rinberg, A. Lammetink; Groningen/NL

Prediction of early haematoma expansion in cerebral haemorrhage based on non-contrast CT [MyT3 4-17]
L. Song1, T. Guo1, J. Wang2, H. Ren1; 1Xiangyang/CN, 2Xiangyang/CN

Application of FLAIR vascular hyperintensity-DWI mismatch in ischaemic stroke, depending on semi-quantitative DWI-Alberta stroke program early CT score [MyT3 4-18]
L. Song1, J. Wang2; 1Xiangyang/CN, 2Xiangyang/CN

Factors resulting in the increase of the total dose received by the patient during endovascular procedures performed within the region of the central nervous system [MyT3 4-19]
S. Modlinska1, M. M. Cebula1, J. Komenda1, J. Baron1; 1Katowice/PL, 2Czeladz/PL

Non-contrast magnetic resonance angiography in renal artery assessment [MyT3 4-20]
S. Sethu Madhavan1, V. Bhat2, K. Ga2; 1Kannur/IN, 2Bengaluru/IN
MY THESIS IN 3 MINUTES

MyT3 5  Musculoskeletal

Moderators: N.N. [MyT3 5-M]

» Diffusion-weighted magnetic resonance imaging of the normal bone marrow in children and the effects of local and systemic cancer therapies [MyT3 5-1]
E. Pace, E. Clarke, A. Mackinnon, H. Mandeville, S. Vaidya, N. Desouza; London/UK

» Application of “Trigger Drop” in patients enrolled for percutaneous treatment of symptomatic discal hernia: preliminary results [MyT3 5-2]
A. Paladini1, I. Percivale1, A. Carriero1, M. Spinetta2, G. Guzzardi, Z. Falaschi, M. Cernigliaro1, S. Bor3, D. Zagaria1; Novara/IT, 2Santhià/IT

» Staging of osteochondral lesions of the talus: comparison of cone-beam CT arthrography with MR imaging [MyT3 5-3]
J. Desimpel, F. M. H. M. Vanhoenacker; Antwerp/BE, Duffel/BE

» Diagnostic accuracy of dual-energy CT in assessment of traumatic bone marrow oedema of lower limb and its correlation with MRI [MyT3 5-4]
H. Yadav1, S. Khanduri2, P. Yadav2; New Delhi/IN, Lucknow/IN

» The role of bone marrow lesions in acute joint injury [MyT3 5-5]
L. Selvarajah1, A. Curtis1, O. Kennedy2; Limerick/IE, Dublin/IE

» T2-mapping evaluation of long-term cartilage alteration of humeral head for arthroscopic Bankart repair with or without remplissmage [MyT3 5-6]
Y. Xie, S. Chen; Shanghai/CN

» MRI evaluation to predict tendon size for knee ligament reconstruction [MyT3 5-7]
G. Di Nino, E. Grassedonio, P. Toia, L. La Grutta, M. Nobile, T. Smeraldi, F. Midiri, M. Galia, M. Midiri; Palermo/IT

» Hand extensor compartments: how to study them and is it always their fault? [MyT3 5-8]
C. A. B. Oliveira1, F. M. F. Gomes2, F. Vieira1, V. Mendes1; Braga/PT, Villa Nova de Sande/RO

» Diffusion tensor imaging of annulus fibrosus in subjects with discogenic low back pain [MyT3 5-9]
S. Tian, H. Yuan; Beijing/CN

» Complex radiological diagnosis of osteonecrosis in desomorphine dependence patients on the pre-operative stage of treatment [MyT3 5-11]
A. Babkova, N. S. Serova, S. P. Pasha, S. K. Ternovoy; Moscow/RU

» Long-term comparison between blind and ultrasound-guided injection in Morton neuroma [MyT3 5-12]
F. Ruiz Santiago, N. Prados Olleta, P. Tomás Muñoz, A. J. Lainez Ramos-Bossini; Granada/ES

» Shoulder stability: where does it fail? [MyT3 5-13]
C. A. B. Oliveira, F. D. S. Costeira, V. Mendes, F. Vieira; Braga/PT

» Pitfalls in imaging of TFCC [MyT3 5-14]
O. Balazs; Timisoara/RO

» Sarcopenia in total hip replacement and its effects on complications [MyT3 5-15]
M. Ay, H. Çetin, N. Cay; Ankara/TR

» MRI findings and their correlations in patients with symptomatic subtle cavovarus hindfoot deformity [MyT3 5-16]
I. Menkova; St. Petersburg/RU

» The role of diffusion-weighted MRI in the assessment of treatment response to chemotherapy in osteosarcoma [MyT3 5-17]
R. Kaddah1, T. Raafat1, L. M. E.-M. S. A. Bokhary2; 1Cairo/EG, 2Giza/EG

» Immediate morphological spine modification after positioning of removable interspinous spacer for unifocal lumbar canal stenosis [MyT3 5-18]
L. J. Pavan1, F. Torre1, J. Yazbek2, A. Prestat1, S. Guinebert3, D. S. Palominos Pose4, N. Stacoffe5, N. Amoretti1; 1Nice/FR, 2Bordeaux/FR, 3Paris/FR, 4Santiago/CL, 5Lyons/FR

» Use of DISCOGEL® to treat cervical and lumbar discal bulging: results and consideration in our monocentric experience [MyT3 5-19]
A. Paladini1, G. Guzzardi, M. Spinetta1, A. Galbiati1, M. Cernigliaro1, D. Negroni1, I. Percivale1, Z. Falaschi1, G. F. Buoni2; 1Novara/IT, 2Turin/IT

March
12
Thursday, March 12, 08:30–10:00, Room Y
» The value of diffusion-weighted MRI in differentiating benign from malignant rectal tumours and assessing the grading of the malignant tumours [MyT3 8-1]
  A. H. Albu Mohammed, D. A. Al-Hilly; Baghdad/IQ

» Role of 18F-FDG PET-CT in detection and staging of hepatocellular carcinoma [MyT3 8-2]
  H. Abdelhaim, M. Houseni, M. Eisakhawy, N. Abd Elbary, O. Elabd; Shebeen El-Kom/EG

» Whole-body low-dose CT scan imaging quality and radiation dose in multiple myeloma: a comparison between 128-slice and 64-slice scanners [MyT3 8-3]
  A. Ahmed, P. Kiely, J. Saunders; Limerick/IE

» Predicting response to therapy of locally advanced rectal cancer: radiomic analysis from MR imaging [MyT3 8-4]
  M. Micilotta1, G. Cappello2, V. Giannini2, A. Defeudis2, S. Mazzetti1, S. Cirillo1, D. Regge1; ‘Turin/IT, 2Candiolo/IT

» Pre-operative CT staging of borderline pancreatic cancer patients after neoadjuvant treatment: its accuracy in the prediction of vascular invasion and resectability [MyT3 8-5]
  S. Ahmed; Assiut/EG

» Measurement of the volume of a metabolically active tumour by PET/CT with 18F-FDG: a new criterion for the status of the disease in patients with multiple myeloma [MyT3 8-6]
  A. Serney, V. Troyan, S. V. Kozyrev, O. A. Rukavitsyn; Moscow/RU

» Multi-parameter model-based on dual-energy CT predicts mediastinal lymph node metastasis in lung cancer patients [MyT3 8-7]
  X. Hu, Q. Gu, K. Zhang, P. Li, H. Shen; Changsha/CN

» Qualitative assessment in radiotherapy of lung cancer using gemstone spectral imaging [MyT3 8-8]
  L. Weihsu, Y. Wang, F. Lin, Y. Lei; Shenzhen/CN

» Exploring the implications of modified advanced lung cancer inflammation index on outcomes in patients with advanced non-small cell lung cancer [MyT3 8-9]
  D. Govai; A. Mahajan, K. Prabhash; Mumbai/IN

» Application of the new anaesthetic protocol N.O.R.A. (non-operating room anaesthesia) for osteoid osteoma percutaneous treatment [MyT3 8-10]
  A. Paladini1, A. Borzel1, F. Pane1, M. Spinetta1, D. Negroni1, A. Galliati1, I. Percivali1, Z. Falaschi1, D. Zagaria1; Novara/IT, 2Naples/IT

» LDCT the saviour? Low-dose CT chest as a cost-effective tool for lung cancer screening in developing countries [MyT3 8-11]
  A. V. Alexander, A. Babu; Thiruvallur/IN

» Integrated PET/MRI for therapy response assessment of patients with Ewing sarcoma: preliminary results [MyT3 8-12]
  J. Grueneisen; M. Chodyla1, B. M. Schaarschmidt1, O. Martin1, M. Forsting1, K. Herrmann1, L. Umutlu1; ‘Essen/DE, 2Düsseldorf/DE

» Multi-parametric MRI approach for post-TACE HCC [MyT3 8-13]
  M. Elmansy; M. Elrakhawy, M. A. El-Aadalany; Mansoura/EG

» Multidisciplinary approach in the diagnosis of primary and secondary lung and pleura tumours in cases of synchronous and metachronous cancers [MyT3 8-14]
  L. Petrychenko; Dnipro/UA

» Assessment of body composition using magnetic resonance imaging and association with clinical outcomes in patients with colorectal and lung cancer [MyT3 8-15]
  N. Sakai, A. Bhagwanani, J. Khalasthry, M. Hall-Craggs, S. A. Taylor; London/UK

» A preliminary study of spectral imaging characteristic differences among tumour tissue, transition tissue and normal tissue of pancreatic cancer [MyT3 8-16]
  W. Wu, Y. Xu; Guangzhou/CN

» The role of diffusion-weighted magnetic resonance imaging in the assessment of response to treatment in cervical cancer patients after chemo-radiation therapy [MyT3 8-17]
  G. Zanirato Rambaldi, M. Giannotta, A. Galuppi, E. Salizzoni; Bologna/IT

» Correlation between diffusion-weighted MRI and the expression of PCNA and Ki-67 in cervical cancer cells [MyT3 8-18]
  Z. Ma, X. Zhao; Zhengzhou/CN

» Does whole-body PET/MRI of abdominal cancers offer additional findings compared to contrast-enhanced CT? [MyT3 8-19]
  S. G. Gür, B. Koyuncu Sökmen; Istanbul/TR

» Acoustic radiation force impulse elastography as a response evaluation tool for transarterial chemoembolisation in the treatment of hepatocellular carcinoma [MyT3 8-20]
  J. Moideen, I. Subbanna, V. Bhargavi; Bengaluru/IN

» Thermal effect of irreversible electroporation in pancreatic cancer [MyT3 8-21]

» The prognostic value of neutrophils lymphocyte ratio (NLR) in patients treated with trans-arterial chemoembolisation with epirubicin particles for hepatocarcinoma [MyT3 8-22]
  A. G. Chimenti1, G. Zanirato Rambaldi, M. Giannotta1, A. Rebonato2; ‘Bologna/IT, 2Pesaro/IT

My Thesis in 3 Minutes

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» To explore the value of CT radiomics in evaluating the biological behaviour of pancreatic cancer  [MyT3 9-1]
Q. Gu; Changsha/CN

» Automated estimations of body weight prior to CT examinations using a 3D camera  [MyT3 9-2]
M. S. May1, F. Geißler1, A. Wimmer2, M. Saake2, M. Kopp1, R. Heiß1, M. Uder1, W. Wuest1; Erlangen/DE, Forchheim/DE

» A pilot study of radiomics signature-based on biparametric MRI for the preoperative prediction extrathyroidal extension in papillary thyroid carcinoma  [MyT3 9-3]
S. Hu1, X. Wang2; Wuxi/CN, Zhenjiang/CN

Z. Huang1, X. Wang1, J. Xiao1, Z. Li1, Y. Xie1, Y. Hu1; Wuhan/CN

» Impact of an artificial intelligence-based noise reduction algorithm on image quality in low-dose coronary CT angiography of obese patients  [MyT3 9-5]
P. Liu1, Y. Wang1, M. Yu1, Z. Liu1, M. Wang1, Z. Jin1; Beijing/CN

» Digitised patient history in computed tomography: data acquisition with mobile tablet computers  [MyT3 9-6]
M. Kopp1, F. Geißler1, M. Wetz1, M. Wiesmüller1, R. Heiss1, T. Allmendinger1, M. Uder1, M. S. May1; Erlangen/DE, Forchheim/DE

» Whole-tumour texture analysis of apparent diffusion coefficient maps for distinguishing uterine endometrial carcinoma from endometrial polyps  [MyT3 9-13]
W. Wang1, J. Cheng1, Y. Zhang1, Zhengzhou/CN

» Radiomics analysis of 18F-FDG PET/MR datasets for the prediction of therapy response of isolated limb perfusion in patients with soft-tissue sarcomas  [MyT3 9-14]
J. Grueneisen1, M. Chodyla1, A. Demircioglu1, M. Forsting1, K. Herrmann1, O. Martin1, L. Umutlu1; Essen/DE, Düsseldorf/DE

» Deep learning-based evaluation of normal bone marrow activity in 18F-NaF PET/CT in patients with prostate cancer  [MyT3 9-15]
S. Lindgren1, O. Enqvist1, J. Ulén1, L. Edenbrandt1, E. Trägårdh1; Malmö/SE, Göteborg/SE

» Machine learning and radiomics analysis of breast MRI for prediction of grading, hormone receptor status and lymph node metastases in patients with breast cancer  [MyT3 9-16]
M. Chodyla1, J. Grueneisen1, O. Martin1, J. Haubold1, M. Forsting1, F. Nensa1, L. Umutlu1; Essen/DE, Düsseldorf/DE

» Clinical value of MRI texture analysis for differentiating solitary fibrous tumours/hemangiopericytoma from angiomatous menigioma based on ADC and enhanced T1WI images  [MyT3 9-17]
S. Zhang1, J. Cheng1, Zhengzhou/CN

» DoseGuard: a fully automated and fast Monte Carlo-based dose calculation system for interventional radiology  [MyT3 9-18]
N. J. Staut1, G. Paiva Fonseca1, C. Jeukens1, A. Vaniqui1, N. J. Staut1, G. Paiva Fonseca1, C. Jeukens1, A. Vaniqui1, M. Podesta1, S. van Hoof1; Verhaegen, Maastricht/NL

» A combination of eight cortical morphologic neuroimaging biomarkers could effectively differentiate tinnitus patients from healthy subjects: evidence from the application of machine learning  [MyT3 9-19]
H. Ly1, Z. Wang1, P. Zhao1, Y. Liu1; Beijing/CN

» The correlation of artificial intelligence-based CAD-RADs by coronary computed tomography angiography with breast arterial calcification on mammography  [MyT3 9-20]
X. Wang1, Z. Huang1, J. Xiao1, Z. Li1, Y. Hu1; Wuhan/CN

» Variations of standard quality control for clinical PET/MRI systems: a European perspective  [MyT3 9-21]
A. Valladares1, T. Beyer1, R. Boellaard1, Z. Chalampalakis1, C. Comtat1, L. Dal Tos1, E. Hansen1, I. Nyutts1, I. Rausch1; Vienna/AT, Amsterdam/NL, Orsay/FR, London/UK, Copenhagen/DK, Leuven/BE
**MyT3 12  Radiographers**

**Moderators:** Marianna Gardarsdottir; Reykjavik/IS  [MyT3 12-M]
Francis Zarb; Msida/MT  [MyT3 12-M]

» Survey of radiologists¹, radiology residents¹, and radiographers’ knowledge regarding contrast materials and management of associated adverse reactions  [MyT3 12-1]
F. Khan, M. Samad, G. Wahid; Peshawar/PK

» An experimental approach to the development of a 3D printed model of the hand and wrist for use in undergraduate radiography teaching  [MyT3 12-2]
L. Kennedy; Waterford/IE

» Estimation of pituitary gland volume and its correlation with age and gender: a magnetic resonance study  [MyT3 12-3]
T. D. C. Cabrita¹, A. F. Abrantes¹, L. P. V. Ribeiro³, S. Rodrigues¹, R. C. M. R. Gaspar¹, R. P. P. Almeida¹, K. B. Azevedo¹; “Faro/PT,” “Parchal/PT,” “São Brás de Alportel/PT,” “Olhão/PT”

» Radiographer’s communication skills in private imaging facilities  [MyT3 12-4]
A. C. M. Gonçalves¹, S. Rodrigues¹, L. P. V. Ribeiro³, A. F. Abrantes¹, P. R. P. Almeida³, O. Lesyk¹, B. Vicente¹; “Tavira/PT,” “Faro/PT,” “Parchal/PT,” “São Brás de Alportel/PT,” “Olhão/PT”

» Ultrasound evaluation of abdominal muscles in asymptomatic and patients with chronic low back pain: the role of a radiographer  [MyT3 12-5]
B. Vicente¹, A. F. Abrantes¹, L. P. V. Ribeiro³, S. Rodrigues¹, J. Pinheiro³, M. V. C. Reis³, R. P. P. Almeida¹; “Olhão/PT,” “Faro/PT,” “Parchal/PT,” “São Brás de Alportel/PT”

» Sentinel lymphatic nodes scintigraphy in patients with vulvar cancer  [MyT3 12-6]
E. Zykov, A. Ilyin, A. Meldo, G. Bozhukhin, G. Lungu, V. M. Moiseenko, S. Maksimov, K. Shelekhova; St. Petersbourg/RU

» An investigation of post-registration PET/CT radiography training in Ireland  [MyT3 12-7]
R. E. Whealan¹, K. Curran, L. A. Rainford; Dublin/IE

» Has the radiographer practice changed in the use of anti-scatter grid with the introduction of digital detectors: a scoping review  [MyT3 12-8]
C. Campeanu; Lausanne/CH

» An investigation into the necessary considerations when giving patients online access to their health records  [MyT3 12-9]
N. Seymour¹, M. D. Davis³; “Cork/IE,” “Dublin/IE”

» Nutritional support in cancer patients: radiographers’ perceptions  [MyT3 12-10]
A. Y. Dimitrova, P. Jones, G. van Dijck; Msida/MT

» SAFMEDS to improve medical students and trainees accuracy in interpreting chest radiographs: a pilot study  [MyT3 12-11]
K. Dunne, D. Byrne, S. Lydon, P. McCarthy, C. Madden; Galway/IE

» Evaluation of haemodynamic changes in the middle cerebral artery in smokers: an ultrasonography study  [MyT3 12-13]
M. D. P. Brazuna¹, L. P. V. Ribeiro², S. Rodrigues¹, A. F. Abrantes¹, R. P. P. Almeida¹, M. V. C. Reis¹, K. B. Azevedo¹; “Faro/PT,” “Parchal/PT”

» Ultrasound measures of abdominal aortic caliber and quadriceps femoris muscle thickness: influence of physical activity and body mass index  [MyT3 12-14]
H. S. Ponte¹, L. P. V. Ribeiro², S. Rodrigues¹, A. F. Abrantes¹, A. D. M. Ribeiro³, R. P. P. Almeida¹, M. V. C. Reis¹, T. C. L. Guerreiro¹; “Faro/PT,” “Parchal/PT,” “Portimão/PT,” “Santiago Do Cacém/PT”

» Radiographers in cath-lab: new operating procedures to improve quality assurance and patient safety  [MyT3 12-15]
F. Aragona¹, E. Stefani², M. Coccato², M. Centenaro¹; “Treviso/IT,” “ Conegliano/IT,” “Varese/IT”

» The environment preventing female radiological technologists from improving their career prospects: filling the duration of their pregnancy and child-rearing  [MyT3 12-16]

» Development of radiographer scheduling system considering skills and training: a case study  [MyT3 12-17]
K. Hidaka; Suita/JP

» A radiographers’ preceptorship: educational needs in the United Arab Emirates  [MyT3 12-18]
M. M. Abuzaid¹, W. Elshami¹, S. Hamid², M. A. Musallam¹; “Sharjah/AE,” “Varese/IT”

» The impact of talking to “experts by experience” on students’ empathy scores  [MyT3 12-19]
G. Harrison; A. Harris; London/UK

» Using a standardised patient to authentically replicate the clinical experience during a trauma simulation for third-year radiological technology students in a Canadian undergraduate programme  [MyT3 12-20]
S. Lee; R. Macleod; Halifax, NS/CA
Comparison of CT findings in successful and unsuccessful non-operative management of acute appendicitis  
C. Civan Kus, D. Tüney, C. Yegen, T. Demirbas, C. Ilgin; İstanbul/TR

Dynamic contrast-enhanced MR imaging of rectal cancer using a golden-angle radial stack-of-stars VIBE sequence: pharmacokinetic analysis and associations with different histopathological findings  
Y. Li, Z. Li, C. Xia; Chengdu/CN

Computed tomography volumetric analysis of rate and factors affecting liver regeneration in liver transplant recipients  
A. Jayant1, T. B. S. Buxi2, K. S. Rawat3, P. Singh4; *Delhi/IN, †Gurgaon/IN, ‡New Delhi/IN

Can CT findings predict the surgical outcome in patients of adhesive small bowel obstruction: a retrospective cum prospective study  
P. Singh1, S. S. Ghuman2, T. B. S. Buxi1, A. Jayant1; *New Delhi/IN, †Gurgaon/IN, ‡New Delhi/IN

Contrast-enhanced CT-based textural parameters as potential prognostic factors of survival for colorectal cancer patients receiving targeted therapy  
H. Xu, H. Liang; Chengdu/CN

Diagnostic accuracy of ultrasound in the detection of amoebic liver abscess  
S. Khan, W. A. Mirza; Karachi/PK

Contrast-enhanced ultrasonography (CEUS) vs dynamic contrast-enhanced MRI (DCE-MRI) for the characterisation of focal liver lesions: where do we stand?  
K. Sood, Y. Agarwal, S. Gupta, R. Prasad; New Delhi/IN

Reproducibility of intravoxel incoherent motion of liver on a 3.0T scanner: free-breathing and respiratory-triggered sequences acquired with different numbers of excitations  

A model based on liver stiffness measured by shear-wave elastography and future liver remnant ratio to predict post-hepatectomy liver failure in patients with hepatocellular carcinoma  
H. Long; Guangzhou/CN

A game-changer for non-transfusion-dependent thalassemia patients: T2* MRI in liver and myocardium iron quantification  
G. Nagendran, P. R. Radhakrishnan, R. J. D. Santosham, B. Jeevanandham; Chennai/IN

Calculating the cut-off value of the damping index using the ROC curve to identify Child-Pugh C patients  
N. K. Agrawal1, A. N. Kamble2; †Mohali/IN, ‡New Delhi/IN

Is visual estimation of liver lobe proportion sufficient to decide on the adequate distribution of the chemotherapeutic agent in uveal melanoma patients undergoing hepatic artery infusion?  
T. Goeser, J. Grueneisen, J. M. Ludwig, Y. Li, L. Umutlu, M. Forsting, T. Theysohn, B. M. Schaarschmidt; Essen/DE

The effect of glycemic-control on renal triglyceride content assessed by proton MR spectroscopy in patients with type 2 diabetes mellitus  
I. Dekkers1, M. B. Bizno, E. H. M. Paiman1, J. W. A. Smit2, I. M. Jazet1, A. de Vries1, H. J. Lamb1; ‘Leiden/NL, †Nijmegen/NL

Improvement of ultrasonographical differential diagnosis of gastric lesions: the value of contrast-enhanced sonography with gastric distention  
T. Li, M. Lu; Chengdu/CN

Shear-wave elastography method in the diagnosis of acute appendicitis  
C. Yıldırım1, O. Tuncyurek2; ‘Aydın/TR, †Nicosia/CY

Comparison of spin-echo echo-planar imaging (SE-EPI), MR elastography with gradient-recalled echo (GRE), MR elastography and correlation with transient elastography (TE)  

CT signs evaluation in predicting the site of gastrointestinal tract perforation: a review of 100 operated patients  
S. Ferraro, M. Giannotta, G. Zanirato Rambaldi, F. Dardi, P. E. Orlandi, M. Imbriani; Bologna/I

Value of CT enterography for predicting the incidence and short-term surgery in patients with Crohn’s fistulising disease in the era of biologics  
G. Minyi; Guangzhou/CN

The role of CT gastric volumetry in sleeve gastrectomy  
M. S. T. M. Effesawry, A. E. Mohamed, E. Sokker; Cairo/EG

CT gastroscopy: a convenient tool to evaluate gastric mass lesions  
S. Siddharth1, P. Narang1, D. S. Srivastava1, P. Gupta1; †New Delhi/IN, ‡Delhi/IN

Radiologic findings of ampullary cancer on contrast-enhanced MRI (CEMRI) with a liver-specific contrast agent: pay attention to the 30-min delayed scan  
I. Son, S. Hong, N. Lee, S. Kim; Busan/KR

MRI-guided microwave ablation of hepatic malignancies: feasibility, efficacy, safety and follow-up  
N. Yanz; Shanghai/CN
Diagnostic value of attenuation measurement of the kidney on unenhanced helical CT in obstructive urolithiasis

Predictors of infectious complications following transrectal ultrasound-guided prostate biopsies in an Irish prostate cancer centre

Retrospective study of endovascular therapy for renal bleedings of arterial origin

Multivessel Doppler in the evaluation of IUGR

Magnetic resonance imaging and three-dimensional transperineal ultrasound evaluation of pelvic floor dysfunction in symptomatic women: a prospective comparative study

Comparison of multiparametric prostate MRI and PSMA gallium PET-CT efficiency: the intraductal component and cribriform pattern in intraprostatic tumour focus

Comparison of ADC-ratio vs mean ADC value of multiparametric MRI to predict the aggressiveness of prostate cancer

Radio-frequency ablation of renal cancer T1a with externally cooled multitined expandable electrodes

Role of MRI to evaluate kidney volume in AKPD patients

Textural analysis of MRI for differential diagnosis of renal masses

68Ga-PSMA PET/CT in biochemically recurrent prostate cancer: when do we miss it and why?

Multiple mathematical models of diffusion-weighted imaging for evaluation of prognostic features in endometrial cancer

High b-values in DWI for prostate cancer detection: what to acquire and what to compute?

Multiparametric magnetic resonance imaging (mp-MRI) in the evaluation of prostate cancer based on PI-RADS V2 on 1.5 T without endorectal coil

Detection of peritoneal metastases from ovarian cancer: a comparison between 3T MRI and surgical findings

Dynamic perfusion computed tomography in assessing of urogenital allografts

Bladder pathology: is it that easy?

Renal duplex in evaluation acute glomerulonephritis in children with laboratory and histopathological correlation

Vesicoureteral reflux imaging in paediatric patients: can cystosonography replace micturating cystourethrogram?

Computed tomography of pelvic varicocele in adolescents with urological pathology

Preoperative radiographic predictors of major vascular reconstructions in patients with testicular cancer undergoing postchemotherapy residual tumour resection (PC-RPLND)
» Optimised short breath-holding time protocol for subtraction coronary CT angiography

N. Xu, J. Xing, X. Meng; Shanghai/CN

» Very low volume of contrast material in pre-TAVI CT: how low can we get?

P. Olga, A. Wolff, R. Wolff, Y. Almagor, N. R. Bogot; Jerusalem/IL

» Heart rate-dependent degree of motion artefacts in coronary CT angiography acquired by a dedicated cardiac CT scanner

M. Vecsey-Nagy, B. Szilveszter, A. Jermendy, M. Kolossvary, J. Simon, Z. Drobní, B. Merkely, P. Maurovich-Horvat; Budapest/HU

» Radiological visualisation in the diagnosis of potentially life-threatening conditions of an athlete’s pathological heart

B. Sergey, V. Sukhov, D. Pospelov; 1Moscow/RU, 2St. Petersburg/RU

» Relationships between coronary atherosclerotic morphology of computed tomography coronary angiography and myocardial perfusion abnormalities

A. Maltseva, K. W. Zavadovsky, A. Mochula, K. Kopeva, E. Grakova; Tomsk/RU

» Diagnostic performance of myocardial CT perfusion imaging for the detection of obstructive coronary artery disease: intraindividual comparison of half scan and multisegment reconstruction


» CT-angiographic graft patency after minimally invasive multivessel coronary bypass surgery

O. Drozdova, M. Snegirev; St. Petersburg/RU

» Evaluation of segmental viable myocardium using low-dose dobutamine stress cardiac MRI with tissue tracking

B. He, F. Gao; Chengdu/CN

» Myocardial CT perfusion imaging for the detection of obstructive coronary artery disease: should interpretation of perfusion defects be different depending on disease status?

D. Preuß, G. Garcia, M. Laule, M. Rief, M. Dewey; Berlin/DE

» CT texture analysis of the myocardium in patients affected by aortic stenosis: a potential new tool?

F. Vaccari, G. M. Agazzi, M. Filippini, C. Fiorina, L. Lupi, M. Ravanelli, D. Farina; Brescia/IT

» Early evaluation on left ventricular remodelling in patients with type 2 diabetes mellitus using MR tissue tracking

Y. Li, Z. Li, C. Xia; Chengdu/CN

» Clinical implications of measuring epicardial adipose tissue quantity

A. Jermendy; Budapest/HU

» The use of CTPA in the evaluation of heart failure in the acute setting

L. O’halloran, J. O’Brien; 1Limerick/IE, 2Dublin/IE

» Compared with the left atrium, left atrial appendage function and myocardial remodeling, play a greater role in relapse of AF after radiofrequency ablation

X. Tian, C. Li, Y. Yuan; Shijiazhuang/CN

» A comparative study between cardiac computed tomography and magnetic resonance imaging in the assessment of cavopulmonary anastomosis

MY THESIS IN 3 MINUTES

15 March  
Sunday, March 15, 08:30–10:00, Room Y

MyT3 17  Head and Neck

Moderators: Yannick De Brucker; Merchtem/BE  [MyT3 17-M]
Ana S. Germano; Amadora/PT  [MyT3 17-M]

- Performance of HRCT temporal bone in the evaluation of non-otologic anatomical variations in temporal bone and their implications in procedure planning of cochlear implant surgery: a prospective study  [MyT3 17-1]
  S. Agarwal; A. Prakash, N. Mannan, M. Grover; Jaipur/IN

- Noise-optimised virtual monoenergetic imaging of dual-energy CT: effect on contrast agent artifacts reduction on carotid CTA examination  [MyT3 17-2]
  J. Fu; Y. Zeng, J. Zhang; Shanghai/CHN

- Ultra-high frequency ultrason (UHFUS) of the minor salivary gland in patients with Sicca syndrome  [MyT3 17-3]
  A. Marcucci; S. Vitali; Pisa/IT

- Response evaluation of choroidal melanoma after brachytherapy using diffusion-weighted magnetic resonance imaging (DW-MRI): preliminary findings  [MyT3 17-4]
  F. Bitencourt1, A. Bitencourt1, J. D. O. Souza1, N. Neves2, M. Chojniak1, R. Chojniak1; ‘São Paulo/BR, ‘Salvador/BR

- The evaluation of the maculopathy using dynamic contrast-enhanced MRI in patients with proliferative diabetic retinopathy  [MyT3 17-5]
  Z. Chen; M. Liu, L. Ma; Beijing/CN

- The relationship of severity of migraine and the optic nerve sheath diameter measured by ultrasonography in patients admitted to an emergency department  [MyT3 17-6]
  I. Kanbur1, H. Topacoglu2; ‘Vienna/AT, ‘Istanbul/TR

- Volumetric analysis of the maxillary, sphenoid and frontal sinuses in computerised tomography: a comparative study using volume rendering in patients of the Hospital Universitario in Monterrey, Mexico  [MyT3 17-7]
  I. A. Garza Rico, R. A. Cuéllar Lozano, R. Pinales Razo, N. G. Jasso Ramirez; Monterrey/MX

- Role of magnetic resonance imaging in patients with temporomandibular joint pain  [MyT3 17-8]
  P. M. A. D. Mohamed Abouelhoda, R. A. M. A. Helal, A. A. Megahed; Cairo/EG

- Normal thyroid stiffness in healthy adults using real-time shear wave and strain elastography and factors that influence the measurement of stiffness  [MyT3 17-9]
  M. Z. Mohammad Zakir1, P. Chatterjee2, R. Ravikumar2; ‘Nagpur/IN, ‘Guwahati/IN, ‘Chennai/IN

- MDCT evaluation of neck masses in adults  [MyT3 17-10]
  A. Kotwal1, A. N. Kamble2; Delhi/IN, ‘New Delhi/IN

- Neurologic dysphagia: does the percutaneous endoscopic gastrostomy (PEG) treatment really decrease the incidence of aspiration pneumonia?  [MyT3 17-11]
  L. Perrucci; M. Santieru, M. Giganti, R. Galeotti; Ferrara/IT

- Comparative efficacy of neck ultrasonography, 99mTc Sestamibi scan and 18F- Choline PET/CT in the preoperative localisation of suspected cases of parathyroid adenoma in primary hyperparathyroidism  [MyT3 17-12]
  T. Neelivalth Thazha Kun1, A. Sood2, R. Kr3; S. K. Bhadada2, B. R. Mittal2, A. Behra3, U. N. Saikia4, D. S. Rao5; ‘Calicut/IN, ‘Chandigarh/IN, ‘Detroit, MI/US

- Role of neck imaging reporting and data system (NI-RADS) in the prediction of local and regional recurrence of head and neck squamous cell carcinoma  [MyT3 17-13]

- A comparative study for diagnostic performance of shear wave elastography and diffusion-weighted MRI in cervical lymph nodes  [MyT3 17-14]
  V. S. Öztürk, E. Ertekin; ‘Aydın/TR

- Role of magnetic resonance apparent diffusion coefficient in assessment of solitary thyroid nodule  [MyT3 17-15]
  E. H. A. Emara1, H. Mansour2, A. Bessar2, I. Lebda2; ‘Kafr El-Shaikh/EG, ‘Zagazig/EG

- Preoperative assessment of extrathyroidal extension of papillary thyroid carcinomas by ultrasound and magnetic resonance imaging: a comparative study  [MyT3 17-16]
  S. Hu; X. Wang; ‘Wuxi/CN, ‘Zhenjiang/CN

- Advanced protocol of MSCT data post-processing in orbital trauma  [MyT3 17-17]
  O. Pavlova; N. S. Serova, D. Davydov; Moscow/RU

- Clinical value of mobile CT head examination in patients with intensive care unit  [MyT3 17-18]
  J. Fu; C. Xia, Z. Li; ChengDu/CN

- Role of diffusion tensor imaging in the evaluation of patients with cervical spondylotic myelopathy: a cross-sectional study  [MyT3 17-19]
  V. S. Arunachalam, S. Saxena, R. Dev, P. Sharma, U. Chauhan, S. Sharma, N. Chatterjee; ‘Rishikesh/IN

- Non-contrast-enhanced carotid MRA: clinical evaluation of a novel un gated radial quiescent-interval slice-selective MRA at 1.5T  [MyT3 17-20]
  S. Peters1, M. Huhndorf1, J.-K. Ulf1, I. Koktzoglou1, R. Edelman1, J. Graessner1; ‘Vienna/AT, ‘Evanston, IL/US, ‘Hamburg/DE
MY T3S IN 3 MINUTES

15 March
Sunday, March 15, 10:30–12:00, Room Y

MyT3 18 Neuro

Moderators: Alexandre Krainik; Grenoble/FR [MyT3 18-M]  
Irina Trofimenko; Moscow/RU [MyT3 18-M]

» Role of diffusion tensor imaging as a biomarker for cases with a history of optic neuritis in multiple sclerosis patients  [MyT3 18-2]  
M. A. S. M. Soliman; Cairo/EG

» A prospective study to evaluate the role of MRI with MR spectroscopy of ring-enhancing lesions in the brain  [MyT3 18-4]  
S. S. Tonpe; Secunderabad/IN

» Genetic and environmental effects on the morphology and haemodynamics of the Circle of Willis: cross-sectional magnetic resonance angiography and transcranial ultrasound twin studies  [MyT3 18-5]  
B. Forgo1, D. L. Tarnoki, T. Horváth1, E. Medda1,  
C. Baracchinì1, A. Sas4, C. Oláh1, L. Kostyal1, A. Tarnoki1;  
1Budapest/HU, 2Rome/IT, 3Padua/IT, 4Miskolc/HU, 5Malyi/HU

» Discrimination of intracranial ring-enhancing lesions using diffusion-weighted imaging, MR spectroscopy and diffusion tensor imaging  [MyT3 18-6]  
M. S. A. Faragalla; Mansoura/EG

» The influence of antiretroviral therapy on brain imaging in HIV infection  [MyT3 18-7]  
E. Bakulina, T. Trofimova; St. Petersburg/ RU

» Comparison of 3D DIR, 3D FLAIR and 2D FLAIR pulse sequences for imaging in demyelinating disorder (in multiple sclerosis) at 3 Tesla  [MyT3 18-8]  
K. Nekar, P. P. Wall, R. Ananthasivan, U. Acharya;  
Bangalore/IN

» Therapy results of pericallosal aneurysms: a retrospective uncentre study  [MyT3 18-9]  
C. Deuschl1, M. Darkawah Oppong1, K. Wrede1;  
1Essen/DE, 2Heidelberg/DE

» High-resolution MR imaging of cortical layers and their structural alterations in stroke and epilepsy patients  [MyT3 18-10]  
E. Lotan, D. Tanne, Y. Assaf; Tel-Aviv/IL

» Application of low radiation dose combined spectrum and ASIR-V iterative reconstruction in CT scanning of ischaemic stroke: a feasibility study  [MyT3 18-11]  
Y. You; Chengdu/CN

» Imaging as the new yardstick for diagnosing peripheral mononeuropathies: a comparison between high-resolution ultrasound and MR neurography with an approach to diagnosis  [MyT3 18-13]  
A. Agarwal, U. Jaipal, M. Bagarhatta, M. Agarwal, A. Chandra; Jaipur/IN

» Evaluation of parameter changes in lateral lumbosacral radiography of patients with and without lumbar spinal stenosis in magnetic resonance imaging (MRI)  [MyT3 18-14]  
N. Merd, D. Gündüz; Isparta/TR

» Automated quantification pipeline (AQuaPi) for the non-invasive measurement of the cerebral metabolic rates of glucose using a fully-integrated PET/MRI  [MyT3 18-15]  
L. K. Shiyam Sundar1, O. Muzik2, I. Rausch1, M. Hienert1,  
E. Pataraia1, E.-M. Klebermass1, T. Traub-Weidinger1, T. Beyer1, M. Bauer1;  
1Vienna/AT, 2Detroit, MI/US

» Value of routine T2WI histogram in differential diagnosis of glioblastoma  [MyT3 18-16]  
Z. Ma, X. Zhao; Zhengzhou/CN

» Compare the characteristics of different types of spontaneous intracranial artery dissection on high-resolution MRI vessel wall imaging  [MyT3 18-17]  
B. Tian, X. Tian, Z. Shi, J. Lu; Shanghai/CN

» Brain MRI follow-up in children with tuberous sclerosis complex: is gadolinium enhancement always necessary?  [MyT3 18-18]  
A.-L. Gaillard1, J.-F. Chateil2, M. Havez3, A. Crombe2;  
1Saint-Maur-des-Fossés/FR, 2Bordeaux/FR, 3Merignac/FR

» Role of transcranial ultrasound with Doppler and strain elastography in neonatal hypoxic-ischaemic encephalopathy with magnetic resonance imaging as the gold standard  [MyT3 18-19]  
A. Singh, U. Jaipal, D. A. Bhandari; Jaipur/IN

» Correlation of childhood head injury with clinical and imaging characteristics of Dyke-Davidoff-Masson syndrome  [MyT3 18-20]  
F. Y. Chew, C. Y. Song, W.-C. Shen, Y.-F. Chen; Taichung/TW
Insights into Imaging

Bringing education and critical perspectives to you!
The Clinical Trials in Radiology (CTiR) sessions present scientific evidence for imaging tests that will change the clinical practice of every radiologist in the future. Each of the clinical trials in radiology presented during these sessions is accompanied by a short lecture. These lectures are given by experts in the respective field and allow participants to better understand which clinical changes should be made based on the CTiR results.

Places are allocated on a first-come, first-served basis.
CLINICAL TRIALS IN RADIOLOGY

Wednesday, March 11, 14:00–15:30, Room Y

CTIR 3 Clinical Trials in Radiology 1

Moderators: Marc Dewey; Berlin/DE [CTIR 3-M]

Umar Mahmood; Charlestown, MA/US [CTIR 3-M]

» Can additional cancers detected by digital breast tomosynthesis in screening be detected on the corresponding mammography examination using artificial intelligence? [CTIR 3-3]

V. Dahlbom, A. Tingberg, K. Lang, I. Andersson, S. Zackrisson, M. Dustler; Malmö/SE

» Discussant [CTIR 3-4]

Endre Szabó; Szeged/HU

Digital Breast Tomosynthesis (CBT) as a primary screening test in a population-based screening program: results from the “Trento DBT pilot study” including interval carcinoma analysis [CTIR 3-5]

D. Bernardi, M. A. Gentilini, M. Pellegrini, C. Fantò, M. Valentini, V. Sabatino, M. de Nisi, N. Houssami; Milan/IT, Trent/IT, Sydney/AU

» Discussant [CTIR 3-6]

Pascal A.T. Baltzer; Vienna/AT

Dose reference levels during fluoroscopically-guided procedures performed using mobile X-ray systems in operating rooms [CTIR 3-9]


» Discussant [CTIR 3-10]

Annalisa Trianni; Udine/IT

CT screening for early lung cancer, cardiovascular disease, and COPD in China: rationale and design of the NELCIN-B3 study [CTIR 3-11]

Y. Du, M. Vonder1, Q. Li, G. Sidorenkov, Z. Ye, X. Xie, W. Wang, M. Oudkerk, S. Liu; Groningen/NL, Tianjin/CN

» Discussant [CTIR 3-12]

Marina Benegas; Barcelona/ES

MRI screening in women with extremely dense breasts: patient and MRI characteristics to distinguish between false-positives and true-positives [CTIR 3-7]

B. M. Den Dekker, M. F. Bakker, S. V. de Lange, R. M. Pijnappel, W. B. Veldhuis, C. van Gils; Utrecht/NL

» Discussant [CTIR 3-8]

Ulrich Bick; Berlin/DE

Thursday, March 12, 14:00–15:30, Room Y

CTIR 7 Clinical Trials in Radiology 2

Moderators: Fiona J. Gilbert; Cambridge/UK [CTIR 7-M]

Umar Mahmood; Charlestown, MA/US [CTIR 7-M]

» Diagnostic accuracy of dynamic contrast enhanced computed tomography in comparison with positron emission tomography in the characterisation of solitary pulmonary nodules: the SPUNIK Trial [CTIR 7-1]


» Discussant [CTIR 7-2]

Matthys Oudkerk; Groningen/NL

» Visibility of interval cancer on previous screening mammograms: comparison of digital mammography and digital breast tomosynthesis in population-based screening [CTIR 7-3]

P. Skaaen, S. B. Brandal, S. Y. Yanakiev, E. E. Eben, T. Lie, R. Gulien; Oslo/NO

» Discussant [CTIR 7-4]

Paola Clauser; Vienna/AT

» Multicenter prospective comparison of the TROcar versus SELdinger technique for percutaneous Cholecystostomy: the TroSelC Trial [CTIR 7-5]

N. A. Arkoudis, L. Reppas, S. C. Spiliopoulos, M. Theofanis, P. M. Kitrou, K. Katsanos, K. Palialexis, D. Filippiadis, E. Brountzos; 1Athens/GR, 2Patras/GR, 3Haidari/GR

» Discussant [CTIR 7-6]

Aleksandar L.J. Bojanovic; Nis/RS

» Building an advanced medical image anonymisation system by integrating open-source tools in a large multi-center cross-modality AI imaging project [CTIR 7-7]


» Discussant [CTIR 7-8]

Tim De Bondt; Antwerp/BE

» Abbreviated MRI randomised study in breast cancer survivors: does it impact patient anxiety? [CTIR 7-9]


» Discussant [CTIR 7-10]

Timm Denecke; Leipzig/DE

» Diagnostic performance of ultrasound in patients with pancreatic ductal adenocarcinoma: a multi-centered population-based observational study [CTIR 7-11]

J. Kang, M. Abdolell, A. Costa; Halifax/CA

» Discussant [CTIR 7-12]

N.N.
CLINICAL TRIALS IN RADIOLOGY

Friday, March 13, 14:00–15:30, Room Y

CTIR 11 Clinical Trials in Radiology 3

Moderators: Marc Dewey; Berlin/DE [CTIR 11-M] Mary C. Mahoney; Cincinnati, OH/US [CTIR 11-M]

» MR CLEAN-MED - The effect of periprocedural medication in acute ischemic stroke treatment: acetylsalicylic acid, unfractionated heparin, both or neither? Interim results and protocol amendment [CTIR 11-1]
R. van de Graaf1, B. Roozenbeek1, V. Chalos1, A. C. G. M. van Es2, H. Lingsma2, D. W. J. Dippel1, A. van der Lugt1, M. Clean Med Investigators2, 1Rotterdam/NL, 2Na/NL

» Discussant [CTIR 11-2]
Kresimir Dolic; Split/HR

» The effect of density on recall, detection, and interval cancer rates in tomosynthesis plus digital mammography or digital mammography breast cancer screening: preliminary results from RETomo trial [CTIR 11-3]
V. Iotti1, P. Giorgi Rossi1, A. Nitrosi1, V. Helin2, E. Gauthier2, C. Campari1, V. Marchesi1, R. Vacondio1, P. Pattacini1, 1Reggio Emilia/IT, 2Villejuif/FR

» Discussant [CTIR 11-4]
Per Skaane; Oslo/NO

» Whole-body MRI versus an FDG-PET/CT-based reference standard for staging of paediatric Hodgkin lymphoma: a prospective multicentre study [CTIR 11-5]
S. Spijkers1, A. S. Littooij1, A. Beishuizen1, S. G. Elias1, B. de Keizer1, T. Kwee1, N. Tolboom1, R. A. J. Nievelstein1, 1Utrecht/NL, 2Groningen/NL

» Discussant [CTIR 11-6]
N.N.

» Pivotal study of MRI-guided transurethral ultrasound ablation (TULSA) in men with localised prostate cancer [CTIR 11-7]
J. J. Futterer1, D. Bonekamp1, S. Arora1, S. Raman1, T. Tirkes1, K. J. Macura1, J. Chin1, L. Klotz2, S. Eggener2, 1Nijmegen/NL, 2Hirschberg/DE, 3Nashville/US, 4Los Angeles/US, 5Indianapolis, IN/US, 6Baltimore, MD/US, 7London, ON/CA, 8Toronto, ON/CA, 9Chicago/US

» Discussant [CTIR 11-8]
Valeria Panebianco; Rome/IT

» Adherence to PI-RADS v2 minimum technical requirements in the PRECISION trial: a new quality control scoring system for multiparametric MRI of the prostate [CTIR 11-9]
F. Giganti, V. Kasivisvanathan, S. Punwani, M. Emberton, C. Allen, C. M. Moore, Precision Study Group Collaborators; London/UK

» Discussant [CTIR 11-10]
N.N.

» MRI in addition to mammography screening in women with extremely dense breasts: outcome of the second (incident) round of the randomised DENSE trial [CTIR 11-11]
M. F. Bakker1, S. V. de Lange, R. M. Pijnappel, W. B. Veldhuis1, C. van Gils, O. B. O. T. Dense Study Group; Utrecht/NL

» Discussant [CTIR 11-12]
Aysenur Oktay; Izmir/TR
European Radiology
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The Voice of EPOS™ - ECR’s popular poster presentation format - features innovative scientific content presented in moderated sessions. It allows expert radiologists and radiographers to pick up the microphone and share their work with colleagues from all over the world.

The sessions cover a variety of radiological subspecialties and also provide topics of growing importance such as Artificial Intelligence and Machine Learning, Imaging Informatics, and Hybrid, Molecular and Translational Imaging.

As a unique feature of ECR, the Voice of EPOS offers sessions in various languages, thus promoting diversity, strengthening networks between colleagues, and serving the multilingual and international radiological community.

Presentations will take place from Wednesday to Sunday on five different stages in the EPOS area.

One of the stages is dedicated exclusively to Radiographers and will feature relevant topics as well as language sessions to bring the Radiographer communities of all nations together.
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Wednesday, March 11, 10:00–11:00
VoE 072  Italian
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VoE 073  Emergency Imaging
Moderator: Alexandra Platon; Geneva/CH

Wednesday, March 11, 12:00–13:00
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Moderator: Georgios Kapsas; Thessaloniki/GR

Wednesday, March 11, 13:00–14:00
VoE 075  Genitourinary
Moderator: Tarek El-Diasty; Mansoura/EG

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VoE 076  Paediatric
Moderator: Gerald Pärtan; Vienna/AT

Wednesday, March 11, 15:00–16:00
VoE 077  Artificial Intelligence and Machine Learning
Moderator: Peter Mildenberger; Mainz/DE

Wednesday, March 11, 16:00–17:00
VoE 078  Musculoskeletal - Ankle and foot
Moderator: Antonio Barile; L’Aquila/IT

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VoE 079  Portugal
Moderator: Teresa Nunes; Lisboa/PT

Thursday, March 12, 11:00–12:00
VoE 080  Spain
Moderator: Eva Llopis San Juan; Alzira-Valencia/ES

Thursday, March 12, 12:00–13:00
VoE 081  Paediatric
Moderator: Gerald Pärtan; Vienna/AT

Thursday, March 12, 13:00–14:00
VoE 082  Artificial Intelligence and Machine Learning
Moderator: Hatem Alkadhi; Zurich/CH

Thursday, March 12, 14:00–15:00
VoE 083  Musculoskeletal - Pelvis and hip
Moderator: Christoph Schäffeler; Chur/CH

Thursday, March 12, 15:00–16:00
VoE 084  Chest
Moderator: Grzegorz Staskiewicz; Lublin/PL

Thursday, March 12, 16:00–17:00
VoE 085  Emergency Imaging
Moderator: Sara Upponi; Cambridge/UK

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Moderator: Asif Mazumder; London/UK
March 13

VoE 087  Russian
Moderator: Elena Mershina; Moscow/ RU

VoE 088  Japanese
Moderator: Yumiko Tanaka; Tokyo/ JP

VoE 089  Emergency Imaging
Moderator: Lukas Ebner; Bern/CH

VoE 090  Neuro - Infections
Moderator: Asif Mazumder; London/UK

VoE 091  Artificial Intelligence and Machine Learning
Moderator: Peter Mildenberger; Mainz/DE

VoE 092  Abdominal Viscera - Pancreas and bile ducts
Moderator: Jonn-Terje Geitung; Norbyhagen/NO

VoE 093  Paediatric
Moderator: Stéphanie Franchi-Abella; Le Kremlin-Bicêtre/FR

VoE 094  Oncologic Imaging - Therapy-related findings and prognosis
Moderator: Anastasia Zikou; Ioannina/GR

March 14

VoE 095  Abdominal Viscera - Infectious diseases
Moderator: Federico Lubinus; Bucaramanga/CO

VoE 096  Spain
Moderator: Nuria Bargalló Alabart; Barcelona/ES

VoE 097  Neuro - Stroke
Moderator: Hemant Patel; Ahmedabad/IN

VoE 098  Artificial Intelligence and Machine Learning
Moderator: Hatem Alkadhi; Zurich/CH

VoE 099  Musculoskeletal - Tumours
Moderator: Keivan Daneshvar Ghorbani; Bern/CH

VoE 100  Emergency Imaging
Moderator: Lukas Ebner; Bern/CH

VoE 101  Paediatric
Moderator: Savas Deftereos; Alexandroupolis/GR

VoE 102  Romanian
Moderator: Ioana Gabriela Lupescu; Bucharest/RO

March 15

VoE 103  Chest
Moderator: Grzegorz Staskiewicz; Lublin/PL

VoE 104  Genitourinary - Female imaging I
Moderator: Athina Tsili; Ioannina/GR

VoE 105  Musculoskeletal - Metabolic and systemic diseases
Moderator: Keivan Daneshvar Ghorbani; Bern/CH
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>VoE</th>
<th>Topic</th>
<th>Moderator</th>
</tr>
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<tbody>
<tr>
<td>11 Mar</td>
<td>09:00–10:00</td>
<td>VoE 106</td>
<td>Professional Issues</td>
<td>Jonn-Terje Geitung; Norbyhagen/NO</td>
</tr>
<tr>
<td>11 Mar</td>
<td>10:00–11:00</td>
<td>VoE 107</td>
<td>Japanese</td>
<td>Takatoshi Aoki; Kitakyushu/JP</td>
</tr>
<tr>
<td>11 Mar</td>
<td>11:00–12:00</td>
<td>VoE 108</td>
<td>Neuro - Haemorrhage</td>
<td>Cem Calli; Izmir/TR</td>
</tr>
<tr>
<td>11 Mar</td>
<td>12:00–13:00</td>
<td>VoE 109</td>
<td>Italian</td>
<td>Irene Bargellini; Pisa/IT</td>
</tr>
<tr>
<td>11 Mar</td>
<td>13:00–14:00</td>
<td>VoE 110</td>
<td>Abdominal Viscera - Emergency radiology</td>
<td>Johannes Thomas Heverhagen; Bern/CH</td>
</tr>
<tr>
<td>11 Mar</td>
<td>14:00–15:00</td>
<td>VoE 111</td>
<td>Latin America (Spanish)</td>
<td>Pedro Tapia Puente Arnao; Lima/PE</td>
</tr>
<tr>
<td>11 Mar</td>
<td>15:00–16:00</td>
<td>VoE 112</td>
<td>Musculoskeletal - Upper extremities</td>
<td>Christoph Schäffeler; Chur/CH</td>
</tr>
<tr>
<td>11 Mar</td>
<td>16:00–17:00</td>
<td>VoE 113</td>
<td>Oncologic Imaging - Myeloma, lymphoma and leukaemia</td>
<td>Igor Shrainer; Moscow/RU</td>
</tr>
<tr>
<td>12 Mar</td>
<td>09:00–10:00</td>
<td>VoE 114</td>
<td>Musculoskeletal - Spine</td>
<td>José Luis del Cura Rodriguez; Bilbao/ES</td>
</tr>
<tr>
<td>12 Mar</td>
<td>11:00–12:00</td>
<td>VoE 115</td>
<td>Arabic (Middle East)</td>
<td>Dina Husseiny Salama; Cairo/EG</td>
</tr>
<tr>
<td>12 Mar</td>
<td>12:00–13:00</td>
<td>VoE 116</td>
<td>Neuro - Imaging signs</td>
<td>Danisia Haba; Iasi/RO</td>
</tr>
<tr>
<td>12 Mar</td>
<td>13:00–14:00</td>
<td>VoE 117</td>
<td>Greek</td>
<td>Georgios Kapsas; Thessaloniki/GR</td>
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<tr>
<td>12 Mar</td>
<td>14:00–15:00</td>
<td>VoE 118</td>
<td>Abdominal Viscera - Liver ultrasound and elastography</td>
<td>Emilio Quaia; Padova/IT</td>
</tr>
<tr>
<td>12 Mar</td>
<td>15:00–16:00</td>
<td>VoE 119</td>
<td>Italian</td>
<td>Maria Ambrosetti; Verona/IT</td>
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<tr>
<td>12 Mar</td>
<td>16:00–17:00</td>
<td>VoE 120</td>
<td>Genitourinary - Female imaging II</td>
<td>Josephine McHugo; Birmingham/UK</td>
</tr>
<tr>
<td>12 Mar</td>
<td>17:00–18:00</td>
<td>VoE 121</td>
<td>GI Tract</td>
<td>Michael Torkzad; Godalming/UK</td>
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</tbody>
</table>
THE VOICE OF EPOS
Stage 4 - EPOS Lounge

13 March
Friday, March 13, 09:00–10:00
VoE 122 Neuro - Dementia and psychiatric disorders
Moderator: Emel Ada; Izmir/TR

Friday, March 13, 11:00–12:00
VoE 123 Latin America (Spanish)
Moderator: Miguel Angel Pinochet; Santiago/CL

Friday, March 13, 12:00–13:00
VoE 124 Chest
Moderator: Anastasia Oikonomou; Toronto/CA

Friday, March 13, 13:00–14:00
VoE 125 Italian
Moderator: Emilio Quaia; Padova/IT

Friday, March 13, 14:00–15:00
VoE 126 GI Tract
Moderator: Anastasia Glantzouni; Ioannina/GR

Friday, March 13, 15:00–16:00
VoE 127 Korean
Moderator: Sarah Kyongmin Beck; Seoul/KR

Friday, March 13, 16:00–17:00
VoE 128 Musculoskeletal - Interventional radiology and miscellaneous
Moderator: José Luis del Cura Rodriguez; Bilbao/ES

Friday, March 13, 17:00–18:00
VoE 129 Hybrid, Molecular and Translational Imaging
Moderator: Michel Eisenblätter; Münster/DE

14 March
Saturday, March 14, 09:00–10:00
VoE 130 Paediatric
Moderator: Bhupendra Ahuja; Agra/IN

Saturday, March 14, 11:00–12:00
VoE 131 Arabic (North Africa)
Moderator: Boudjema Mansouri; Algiers/DZ

Saturday, March 14, 12:00–13:00
VoE 132 Chest
Moderator: Michael Toepker; Vienna/AT

Saturday, March 14, 13:00–14:00
VoE 133 Japanese
Moderator: Yumiko Tanaka; Tokyo/JP

Saturday, March 14, 14:00–15:00
VoE 134 Neuro - Arterial, arteriovenous and venous imaging
Moderator: Anastasia Zikou; Ioannina/GR

Saturday, March 14, 15:00–16:00
VoE 135 Latin America (Portuguese)
Moderator: Gabriela Martins; Rio de Janeiro/BR

Saturday, March 14, 16:00–17:00
VoE 136 Head and Neck
Moderator: Marc Lemmerling; Beervelde/BE

Saturday, March 14, 17:00–18:00
VoE 137 Musculoskeletal - Knee and miscellaneous
Moderator: Keivan Daneshvar Ghorbani; Bern/CH

15 March
Sunday, March 15, 09:00–10:00
VoE 138 Head and Neck
Moderator: Danisia Haba; Iasi/RO

Sunday, March 15, 10:00–11:00
VoE 139 Abdominal Viscera - MRI
Moderator: Anastasia Glantzouni; Ioannina/GR

Sunday, March 15, 11:00–12:00
VoE 140 Oncologic Imaging - Usual and unusual findings
Moderator: Peter Brader; Graz/AT
THE VOICE OF EPOS - RADIOGRAPHERS

Stage 5 - EPOS Lounge

Wednesday, March 11, 09:00–10:00
VoE 141 CT
Moderator: Luis Ribeiro; Parchal/PT

Wednesday, March 11, 10:00–11:00
VoE 142 MRI
Moderator: Luis Lança; Singapore/SG

Wednesday, March 11, 11:00–12:00
VoE 143 Education and Training
Moderator: Michelle O’Connor; Dublin/IE

Wednesday, March 11, 12:00–13:00
VoE 144 Radiation Protection
Moderator: Luis Ribeiro; Parchal/PT

Wednesday, March 11, 13:00–14:00
VoE 145 Italian
Moderator: Diego Catania; Milano/IT

Wednesday, March 11, 14:00–15:00
VoE 146 Ultrasound
Moderator: Michelle O’Connor; Dublin/IE

Wednesday, March 11, 15:00–16:00
VoE 147 Cardiology
Moderator: Jonathan Portelli; Msida/MT

Thursday, March 12, 09:00–10:00
VoE 148 Italian
Moderator: Diego Catania; Milano/IT

Thursday, March 12, 12:00–13:00
VoE 150 Spanish
Moderator: María Jesús Suárez Hernández; Galdakao/ES

Thursday, March 12, 13:00–14:00
VoE 151 MRI
Moderator: Andrew England; Manchester/UK

Thursday, March 12, 14:00–15:00
VoE 152 Japanese
Moderator: Yasuo Nakazawa; Tokyo/JP

Thursday, March 12, 15:00–16:00
VoE 153 Paediatrics
Moderator: Luis Lança; Singapore/SG

Thursday, March 12, 16:00–17:00
VoE 154 French
Moderator: Philippe Gerson; Paris/FR

Friday, March 13, 09:00–10:00
VoE 155 Japanese
Moderator: Naoki Kodama; Niigata/JP

Friday, March 13, 11:00–12:00
VoE 156 Professional Issues and Practice
Moderator: Shane Foley; Dublin/IE

Friday, March 13, 12:00–13:00
VoE 157 Asia/Australasia
Moderator: Michael Neep; Meadowbrook/AU

Friday, March 13, 13:00–14:00
VoE 158 CT
Moderator: Andrew England; Manchester/UK

Friday, March 13, 14:00–15:00
VoE 159 Portuguese
Moderator: Altino Cunha; Bragança/PT

Friday, March 13, 15:00–16:00
VoE 160 Radiation Protection
Moderator: Jennifer Grehan; Dublin/IE

Friday, March 13, 16:00–17:00
VoE 161 Japanese
Moderator: Hideki Shibata; Aichi-Pref./JP

Saturday, March 14, 09:00–10:00
VoE 162 Imaging Modalities
Moderator: Jennifer Grehan; Dublin/IE

Saturday, March 14, 11:00–12:00
VoE 163 Italian
Moderator: Diego Catania; Milano/IT

Saturday, March 14, 12:00–13:00
VoE 164 MRI
Moderator: Paul Bezzina; Malta/MT

Saturday, March 14, 13:00–14:00
VoE 165 Image Quality
Moderator: Graciano Paulo; Coimbra/PT
AIX THEATRE

The scientific programme of the AIX Theatre is organised by the ESR’s Imaging Informatics Subcommittee, chaired by Peter van Ooijen.

Come and explore how machine learning, deep learning, and big data are reshaping medical imaging to find out what the future of radiology holds and take in keynote lectures, panel discussions, and industry pitches in our transformed AIX Theatre.

The AIX Theatre is located in the expo hall X1 and its programme is CME accredited for the first time.

For details of the AIX Theatre’s industry pitches see ‘Industry Programme & On-Show Guide’.
### Educational and Industry Programme

**AIX Theatre**

**Wednesday, March 11 to Saturday, March 14**  
AIX Theatre – EXPO X1 hall, lower level

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<tr>
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<tr>
<td>Morning Session</td>
<td>11:00–12:00 Industry Pitches</td>
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<tr>
<td>Lunch Session</td>
<td>12:00–13:00 Moderator: Hugh Harvey; London/UK</td>
</tr>
<tr>
<td>Keynote Lecture</td>
<td>The hype of AI: risks of rapidly implementing radiological AI</td>
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<tr>
<td></td>
<td>Sergey Morozov; Moscow/RU</td>
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<tr>
<td>13:00–14:00</td>
<td>Industry Pitches</td>
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<tr>
<td>Afternoon Session</td>
<td>14:00–15:00 Moderator: Wim van Hecke; Leuven/BE</td>
</tr>
<tr>
<td>Panel Discussion</td>
<td>How to train radiologists and related professionals in AI?</td>
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<td></td>
<td>Bibb Allen; Birmingham/US</td>
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<td>Emanuele Neri; Pisa/IT</td>
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<td></td>
<td>Peter M.A. van Ooijen; Groningen/NL</td>
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<td>Federica Zanca; Leuven/BE</td>
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<td></td>
<td>Albert Pons Escoda; Barcelona/ES</td>
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<tr>
<td>15:00–16:00</td>
<td>Industry Pitches</td>
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<td>12:00–13:00 Moderator: Wim van Hecke; Leuven/BE</td>
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<tr>
<td>Keynote Lecture</td>
<td>Multi-society vision on ethics in AI</td>
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<tr>
<td></td>
<td>Raymond Geis; Fort Collins/US</td>
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<tr>
<td>13:00–14:00</td>
<td>Industry Pitches</td>
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<tr>
<td>Afternoon Session</td>
<td>14:00–15:00 Moderator: Hugh Harvey; London/UK</td>
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<tr>
<td>Panel Discussion</td>
<td>AI beyond radiology image analysis</td>
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<td></td>
<td>Kieran Foley; Llantrisant/UK</td>
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<td></td>
<td>Raymond Geis; Fort Collins/US</td>
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<td>Ana Jimenez-Pastor; Valencia/ES</td>
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<td></td>
<td>Jacob Johannes Visser; Rotterdam/NL</td>
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<td>15:00–16:00</td>
<td>Industry Pitches</td>
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<tr>
<td>Morning Session</td>
<td>11:00–12:00 Industry Pitches</td>
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<tr>
<td>Lunch Session</td>
<td>12:00–13:00 Moderator: Hugh Harvey; London/UK</td>
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<tr>
<td>Keynote Lecture</td>
<td>Human-computer interaction and AI</td>
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<tr>
<td></td>
<td>Fokie Cnossen; Groningen/NL</td>
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<tr>
<td>13:00–14:00</td>
<td>Industry Pitches</td>
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<tr>
<td>14:00–15:30</td>
<td>Livestream of the Image Interpretation Quiz</td>
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<tr>
<th>Date</th>
<th>Saturday, March 14:</th>
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<tr>
<td>Morning Session</td>
<td>11:00–12:00 Industry Pitches</td>
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<tr>
<td>Lunch Session</td>
<td>12:00–13:00 Moderator: Wim van Hecke; Leuven/BE</td>
</tr>
<tr>
<td>Keynote Lecture</td>
<td>AI and liability in radiology practice</td>
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<tr>
<td></td>
<td>Nils Broeckx; Antwerp/BE</td>
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<tr>
<td>13:00–14:00</td>
<td>Industry Pitches</td>
</tr>
<tr>
<td>Afternoon Session</td>
<td>14:00–15:00 Moderator: Hugh Harvey; London/UK</td>
</tr>
<tr>
<td>Panel Discussion</td>
<td>Data sharing with industry for AI: legal and ethical issues</td>
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<td></td>
<td>Jörg F. Debatin; Berlin/DE</td>
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<td>Daniele Regge; Candiolo/IT</td>
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<td>Elmar Kotter; Freiburg/DE</td>
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</table>
THE CUBE 3.0

The Cube is ECR’s educational space exclusively dedicated to interventional radiology. A four-day programme focusing on peripheral, central, oncological, and neurological interventions awaits anyone interested in this dynamic subspecialty at the Hotel Meliá (DC Tower).

Participants can expect a huge array of simulators, devices, expert-led presentations, daily event sessions and more, making the Cube 3.0 the best place to get an immersive, hands-on introduction to interventional radiology.

The Cube’s sessions are CME accredited for the first time.

For more information and the latest programme visit www.myESR.org/cube.
# Educational and Industry Programme

**THE CUBE 3.0**

**Wednesday, March 11 to Saturday, March 14**
**The Cube 3.0, Level 1, Hotel Meliá, DC Tower / ECR City**

**The Interventional Radiology Workshop**
Organised by the European Society of Radiology

For more information and the latest programme, visit [www.myESR.org/cube](http://www.myESR.org/cube).

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<tr>
<td><strong>Morning Session</strong></td>
<td><strong>Morning Session</strong></td>
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<tr>
<td>09:00–09:30 Tools of the trade: piping the periphery</td>
<td>09:00–09:30 Tools of the trade: to cool to burn to embolise</td>
</tr>
<tr>
<td>Raúl García Marcos; Valencia/ES</td>
<td>Filippo Piacentino; Varese/IT</td>
</tr>
<tr>
<td>09:30–10:30 Simulation activities</td>
<td>09:30–10:30 Simulation activities</td>
</tr>
<tr>
<td>10:30–11:00 What Would You Do?</td>
<td>10:30–11:00 What Would You Do?</td>
</tr>
<tr>
<td>Case studies presented through quiz</td>
<td>Case studies presented through quiz</td>
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<tr>
<td>Iñigo Insauti Gorbea; Pamplona/ES</td>
<td>Salvatore Alessio Angileri; Milan/IT</td>
</tr>
<tr>
<td>11:00–12:00 Simulation activities</td>
<td>11:00–12:00 Simulation activities</td>
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<tr>
<td>The Event</td>
<td>The Event</td>
</tr>
<tr>
<td>Fernando Muñoz Gomez; Valencia/ES</td>
<td>Andrea Antonio Ianniello; Milan/IT</td>
</tr>
<tr>
<td><strong>Afternoon Session</strong></td>
<td><strong>Afternoon Session</strong></td>
</tr>
<tr>
<td>14:00–14:30 Special topic</td>
<td>14:00–14:30 Special topic</td>
</tr>
<tr>
<td>Alberto Alonso-Burgos; Madrid/ES</td>
<td>Gianpaolo Carrafiello; Milan/IT</td>
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<tr>
<td>14:30–15:30 Simulation activities</td>
<td>14:30–15:30 Simulation activities</td>
</tr>
<tr>
<td>15:30–16:00 Peripheral emergencies</td>
<td>15:30–16:00 Oncological emergencies</td>
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<tr>
<td>Adrián Picado Bermúdez; Valencia/ES</td>
<td>Anna Maria Ierardi; Milan/IT</td>
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<tr>
<td>16:00–17:00 Simulation activities</td>
<td>16:00 17:00 Simulation activities</td>
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<tr>
<th>March 12: Thursday, March 12</th>
<th>March 14: Saturday, March 14</th>
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<tr>
<td><strong>Morning Session</strong></td>
<td><strong>Morning Session</strong></td>
</tr>
<tr>
<td>09:00–09:30 Tools of the trade: the aortic alphabet soup</td>
<td>09:00–09:30 Tools of the trade: neuro specials</td>
</tr>
<tr>
<td>Bora Peynircioğlu; Ankara/TR</td>
<td>Eberhard Siebert; Berlin/DE</td>
</tr>
<tr>
<td>09:30–10:30 Simulation activities</td>
<td>09:30–10:30 Simulation activities</td>
</tr>
<tr>
<td>10:30–11:00 What Would You Do?</td>
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<tr>
<td>Case studies presented through quiz</td>
<td>Case studies presented through quiz</td>
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<tr>
<td>Elika Kashef; London/UK</td>
<td>Salvatore Alessio Angileri; Milan/IT</td>
</tr>
<tr>
<td>11:00–12:00 Simulation activities</td>
<td>11:00–12:00 Simulation activities</td>
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<tr>
<td>The Event</td>
<td>The Event</td>
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<tr>
<td>Thomas Schmitz-Rode; Aachen/DE</td>
<td>Richard Nolz; Vienna/AT</td>
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<tr>
<td><strong>Afternoon Session</strong></td>
<td><strong>Afternoon Session</strong></td>
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<tr>
<td>14:00–14:30 Special topic</td>
<td>14:00–14:30 Special topic</td>
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<tr>
<td>Stavros Charalabos Spiliopoulos; Athens/GR</td>
<td>Eberhard Siebert; Berlin/DE</td>
</tr>
<tr>
<td>14:30–15:30 Simulation activities</td>
<td>14:30–15:30 Simulation activities</td>
</tr>
<tr>
<td>15:30–16:00 Central emergencies</td>
<td>15:30–16:00 Neurological emergencies</td>
</tr>
<tr>
<td>Panos Gkoutzios; London/UK</td>
<td>Aymeric Rouchaud; Paris/FR</td>
</tr>
<tr>
<td>16:00–17:00 Simulation activities</td>
<td>16:00–17:00 Simulation activities</td>
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</table>
The industrial Satellite Symposia are organised by various international companies. These sessions are a chance to get an industry perspective on various scientific subjects, including technical updates, emerging trends, and future innovations. The symposia vary in length from 60 to 90 minutes, with the number of speakers also differing between companies and subjects.

Places are allocated on a first-come, first-served basis.

For details of the programmes, see the ‘Industry Programme & On-Show Guide’.
**SATELLITE SYMPOSIA**

**Wednesday, March 11, 12:45–13:45, Room X**

**SY 1** Satellite Symposium organised by Elsevier

**Wednesday, March 11, 09:30–10:30, Studio 2020**

**SY 2a** Satellite Symposium jointly organised by Siemens Healthineers and Bayer

**Wednesday, March 11, 10:45–12:15, Studio 2020**

**SY 2b** Satellite Symposium jointly organised by Siemens Healthineers and Bayer

**Wednesday, March 11, 12:30–13:30, Studio 2020**

**SY 2c** Satellite Symposium jointly organised by Siemens Healthineers and Bayer

**Wednesday, March 11, 13:45–14:45, Studio 2020**

**SY 2d** Satellite Symposium jointly organised by Siemens Healthineers and Bayer

**Wednesday, March 11, 15:00–15:45, Studio 2020**

**SY 2e** Satellite Symposium jointly organised by Siemens Healthineers and Bayer

**Wednesday, March 11, 12:45–13:45, Room F2**

**SY 3** Satellite Symposium organised by GE Healthcare

**Wednesday, March 11, 12:45–13:45, Room Y**

**SY 4** Satellite Symposium organised by Philips

**Wednesday, March 11, 12:45–13:45, Room K**

**SY 5** Satellite Symposium organised by Canon Medical Systems

**Wednesday, March 11, 12:45–13:45, Room M1**

**SY 6** Satellite Symposium organised by EOS Imaging

**Thursday, March 12, 12:45–13:45, Room X**

**SY 7** Satellite Symposium organised by Kheiron Medical Technologies

**Thursday, March 12, 12:45–13:45, Room O**

**SY 8** Satellite Symposium organised by Bayer

**Thursday, March 12, 12:45–13:45, Studio 2020**

**SY 9** Satellite Symposium organised by Siemens Healthineers

**Thursday, March 12, 12:45–13:45, Room E**

**SY 10** Satellite Symposium organised by Bracco

**Thursday, March 12, 12:45–13:45, Room Y**

**SY 11** Satellite Symposium organised by Samsung

**Thursday, March 12, 12:45–13:45, Room N**

**SY 12** Satellite Symposium organised by Siemens Healthineers Russia

**Thursday, March 12, 12:45–13:45, Room M2**

**SY 13** Satellite Symposium organised by GE Healthcare Russia

**Thursday, March 12, 12:45–13:45, Room M3**

**SY 14** Satellite Symposium jointly organised by Bayer and Siemens Healthineers

**Thursday, March 12, 12:45–13:45, Tech Gate Auditorium**

**SY 15** Satellite Symposium organised by Guerbet

**Thursday, March 12, 17:30–18:15, Coffee & Talk 3 (Foyer E)**

**SY 24** Satellite Symposium organised by Hitachi
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<tr>
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<th>Time</th>
<th>Location</th>
<th>Symposium Name</th>
<th>Organiser(s)</th>
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<td><strong>13 March</strong></td>
<td><strong>Friday, March 13, 12:45–13:45, Room X</strong></td>
<td>SY 16</td>
<td>Satellite Symposium organised by SOPHIA GENETICS</td>
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<tr>
<td><strong>13 March</strong></td>
<td><strong>Friday, March 13, 12:45–13:45, Room O</strong></td>
<td>SY 17</td>
<td>Satellite Symposium jointly organised by Siemens Healthineers and Bayer</td>
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<tr>
<td><strong>13 March</strong></td>
<td><strong>Friday, March 13, 12:45–13:45, Room E</strong></td>
<td>SY 18</td>
<td>Satellite Symposium organised by Bracco</td>
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<tr>
<td><strong>13 March</strong></td>
<td><strong>Friday, March 13, 12:45–13:45, Room Y</strong></td>
<td>SY 19</td>
<td>Satellite Symposium organised by Philips</td>
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<tr>
<td><strong>13 March</strong></td>
<td><strong>Friday, March 13, 12:45–13:45, Room G</strong></td>
<td>SY 20</td>
<td>Satellite Symposium organised by Siemens Healthineers and Bracco</td>
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<tr>
<td><strong>13 March</strong></td>
<td><strong>Friday, March 13, 12:45–13:45, Room M3</strong></td>
<td>SY 21</td>
<td>Satellite Symposium organised by Bayer</td>
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<tr>
<td><strong>13 March</strong></td>
<td><strong>Friday, March 13, 12:45–13:45, Tech Gate Auditorium</strong></td>
<td>SY 23</td>
<td>Satellite Symposium organised by Guerbet</td>
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<tr>
<td><strong>14 March</strong></td>
<td><strong>Saturday, March 14, 12:45–13:45, Room Y</strong></td>
<td>SY 22</td>
<td>Satellite Symposium organised by Samsung</td>
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</table>
Eurorad

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eurorad.org
The industry workshops offer intensive practical sessions organised directly by a particular company or commercial vendor. Classes are conducted on their own state-of-the-art workstations, with expert technical support provided by company staff. Participants have the opportunity to learn from experts about using computers and medical devices in the field of radiology and gain first-hand knowledge.

As a registered attendee for the ECR, participation is free of charge.

For details of the programmes, see the ‘Industry Programme & On-Show Guide’. 
POSTGRADUATE EDUCATIONAL PROGRAMME

Key to Abbreviations
Children in Focus (IF)
Coffee & Talk (open forum) Sessions (C)
EFOMP Workshop (EF)
ESR at Work Sessions
ESR/EFRS/ISRRT meets Sessions (Meets)
European Excellence in Education (E3)
EuroSafe Imaging Sessions (EU)
Joint Sessions
Multidisciplinary Sessions (MS)
New Horizons Sessions (NH)
Plenary Lectures (PL)
Professional Challenges Sessions (PC)
Pros & Cons Session (PS)
Refresher Courses (RC)
Special Focus Sessions (SF)
State of the Art Symposia (SA)
Transatlantic Course of ESR and RSNA (TC)
Joint Session of the ESR and ESTRO

ESR/ESTRO
Radiology and radiotherapy in liver tumours

ESR/ESTRO-1/ESR/ESTRO-2 08:30
Chairpersons' introduction
R. G. H. Beets-Tan; Amsterdam/NL (r.beetstan@nki.nl)
B. J. Slotman; Amsterdam/NL (bj.slotman@amsterdamumc.nl)

Session objectives:
1. To learn about the entire spectrum of radiation treatment of liver tumours.
2. To know its indications.
3. To understand the value of imaging as a guidance for these procedures.
4. To learn about the performance in evaluating response.

ESR/ESTRO-3 08:35
Stereotactic body radiation therapy (SBRT) in liver tumours
M. Hawkins; London/UK (maria.hawkins@oncology.ox.ac.uk)

Learning objectives:
1. To learn about indications for using SBRT in liver tumours.
2. To understand outcomes after SBRT in liver tumours.
3. To appreciate potential toxicities of SBRT in this setting.
4. To become familiar with future directions in SBRT for liver malignancies.

ESR/ESTRO-4 08:50
MRI-guided RT in liver tumours
L. Boldrini; Rome/IT (lucaboldrini@hotmail.it)

Learning objectives:
1. To become familiar with the MRI-guided RT workflow.
2. To describe the applications of MRI-guided RT in liver tumours.
3. To provide an overview of the existing MRI-guided RT evidence and further developments.

ESR/ESTRO-5 09:05
Selective internal radiation therapy (SIRT) for liver tumours
J. I. Bilbao Jauregizar; Pamplona/ES (jibilbao@unav.es)

Learning objectives:
1. To describe the most common indications of radioembolisation (selective internal radiation therapy).
2. To be familiar with the main anatomical and haemodynamical aspects that will lead to a successful technique.
3. To know how complications can be avoided.

ESR/ESTRO-6 09:20
Post-selective intra-arterial radiation therapy (SIRT) response evaluation: what a radiologist should know
N. Lev Cohain; Jerusalem/IL (NAAMAL@HADASSAH.ORG.IL)

Learning objectives:
1. To describe what is the ideal timeframe for a follow-up protocol.
2. To present tumour response assessment after SIRT.
3. To provide an overview of benign post-SIRT imaging findings.
4. To present possible complications.

09:35
Panel discussion: Radiologists and radiotherapists: how can they help each other to achieve the best care for the patient with liver tumours

08:30 - 10:00 Room X

Neuro

RC 111
Craniocervical junction

RC 111-1 08:30
Chairperson's introduction
J. van Goethem; Antwerp (Edegem)/BE (johan.vangoethem@uantwerpen.be)

Session objectives:
1. To become familiar with the anatomy and congenital anomalies of the craniocervical junction.
2. To recognise fractures and ligamentous injury of the craniocervical junction.
3. To be aware of craniocervical abnormalities in systemic diseases.

RC 111-2 08:35
A. Congenital abnormalities
A. Rossi; Genoa/IT (andrearossi@gaslini.org)

Learning objectives:
1. To become familiar with the congenital bone anomalies and variants of the craniocervical junction.
2. To learn about associated cerebellar and spinal cord abnormalities.
3. To illustrate craniocervical anomalies in syndromes.

RC 111-3 08:58
B. Trauma
A. Adams; London/UK (ashokadams@hotmail.com)

Learning objectives:
1. To be able to categorise the spectrum of fractures.
2. To develop an understanding of the biomechanics and management options.
3. To appreciate the imaging findings in ligamentous craniocervical injuries.

RC 111-4 09:21
C. Systemic diseases and tumours
K.-O. Loevblad; Geneva/CH (Karl-Olof.Lovblad@hcuge.ch)

Learning objectives:
1. To recognise craniocervical injuries in rheumatoid arthritis.
2. To differentiate systemic diseases from other pathology involving the craniocervical junction.
3. To become familiar with retro-odontoid pseudotumours without rheumatoid arthritis.

09:44
Panel discussion: Imaging strategies for assessing the craniocervical junction

09:00 - 10:00 Room N

Coffee & Talk 2

Coffee & Talk (open forum) Session
Organised by EuroSafe Imaging

C 9
Radiation protection: more opportunities than risks

C 9-1/C 9-2 09:00
Chairpersons' introduction
G. Frija; Paris/FR (guylfrja@aphp.fr)
I. Krakl; Zagreb/HR (i.kralik@kdz.hr)

Session objectives:
1. To highlight the benefit of imaging procedures.
2. To promote clinical guidelines.
3. To promote equipment and software for significant dose reduction.
C 9-3 09:05
What is the ideal referral that we wish to receive?
A. Brady; Cork/IE (adrianbrady@me.com)

**Learning objectives:**
1. To outline the importance of providing appropriate clinical information when requesting imaging studies.
2. To emphasise the two-way conversation between referrers and radiologists inherent in good radiology practice.
3. To reinforce the centrality of radiologist input in choosing the most effective use of imaging to answer clinical problems.

C 9-4 09:15
Very low dose: a paradigm shift in radiation protection?
R. W. Loose; Nuremberg/DE (r.loose@mail.de)

**Learning objectives:**
1. To highlight the ALARA principle and requirements for diagnostic image quality.
2. To promote and demonstrate the chances of new dose reduction techniques.
3. To outline diagnostic limitations in cases of too-low dose protocols.

C 9-5 09:25
Defensive medicine: how to avoid inappropriate “rule-out” referrals
F. Kainberger; Vienna/AT (franz.kainberger@meduniwien.ac.at)

**Learning objectives:**
1. To assess the relevance of overutilisation, overdiagnosis, and overtreatment.
2. To use a simple grading for expressing the pre-test probability in referrals for imaging.
3. To assess the usefulness of strategies for reducing the rate of “rule-out” referrals.

09:35
Open forum discussion

08:30 - 10:00 Room F1

**E³ - Advanced Course: Interactive Teaching Session for Young (and not so Young) Radiologists**

**E³ 121b**
Emergency and chest radiology

**E³ 121b-1 08:30**
A. Dyspnoea in oncologic patients: how to approach it
C. M. M. Schaefer-Prokop; Amersfoort/NL (cornelia.schaeferprokop@gmail.com)

**Learning objectives:**
1. To learn about the role of imaging in these patients.
2. To understand the importance of clinical data for narrowing the differential diagnosis.

**E³ 121b-2 09:15**
B. Blunt thoracic trauma: from the plain film to CT
A. Oikonomou; Toronto, ON/CA (anastasia.oikonomou@sunnybrook.ca)

**Learning objectives:**
1. To learn about the spectrum of radiological findings in blunt thoracic trauma.
2. To emphasise the importance of CT reformations for the detection of severe complex traumatic injuries.

08:30 - 10:00 Room F2

**GI Tract**

**RC 101**
Colon cancer: a multidisciplinary approach
Moderator:
L. C. O. K. Blomqvist; Stockholm/SE

**RC 101-1 08:30**
A. What are the expectations from the surgeon?
D. Ignjatovic; Oslo/NO (dejan.ignjatovic@medisin.uio.no)

**Learning objectives:**
1. To learn about the clinical background and surgical techniques for colon cancer.
2. To learn the surgical nomenclature used for the different variants of surgical procedures, in particular that related to the vasculature.
3. To understand how different imaging features on CT related to anatomical vascular variants can affect the surgical procedure.

**RC 101-2 09:00**
B. My CT protocol for staging colon cancer
A. Drolsum; Oslo/NO (adrolsum@gmail.com)

**Learning objectives:**
1. To demonstrate the CT acquisition protocol relevant for staging colon cancer that also allows demonstration of bowel vasculature.
2. To learn about the vascular anatomy of the colon and nodal pathways as visualised on CT.
3. To understand how software post-processing can facilitate assessment and demonstration of vascular anatomy.

**RC 101-3 09:30**
C. Integrated staging and vascular assessment
A. Negaard; Lørenskog/NO (anne.negard@ahus.no)

**Learning objectives:**
1. To present clinical cases that demonstrates the use of CT to illustrate local and distant staging in a structured report.
2. To demonstrate how the vascular assessment is performed in the same examination.
3. To present typical cases that demonstrate the importance of assessment, both in relation to the extent of disease as well as the vascular anatomy.

**E³ 121a**
Musculoskeletal tumours

**E³ 121a-1 08:30**
A. Soft tissue tumours
P. M. H. M. Vanhoenacker; Antwerp/BE (philip.vanhoenacker@telenet.be)

**Learning objectives:**
1. To describe the imaging findings of soft tissue tumours.
2. To list the differential diagnosis of soft tissue tumours and tumour-like conditions.

**E³ 121a-2 09:15**
B. Bone tumours
F. B. Ergen; Ankara/TR (bergen@delta-eur.com)

**Learning objectives:**
1. To describe imaging findings of musculoskeletal tumours and tumour-like conditions.
2. To recognise imaging pitfalls of musculoskeletal tumours and tumour-like conditions.
1. To understand the importance of quality in daily practice.
2. To appreciate the role of radiographers in promoting and delivering quality improvements.
3. To promote discussion on practical approaches to developing a quality culture in medical imaging.

Session objectives:

D. Pekarovic
P. Bezzina
A. The radiographers' role in justification

Learning objectives:

1. To review the relevant EU legislation.
2. To understand the impact of legislation on the practice of radiographers.
3. To consider the potential for continuous professional development to support justification across modalities.

RC 103-2 09:00
B. Assessment of PH by CT
E. Mershina; Moscow/RU (elena_mershina@mail.ru)

Learning objectives:

1. To review the spectrum of currently available techniques, from pulmonary angiography to CT perfusion, with spectral imaging.
2. To list typical and subtle CT imaging parenchymal and vascular features in primary and secondary forms of disease.
3. To review the current role of CT in clinical guidelines for the diagnosis and treatment of pulmonary hypertension.

RC 103-3 09:30
C. Cardiac imaging to monitor therapeutic response and predict outcome
J. Vogel-Claussen; Hanover/DE (vogel-claussenn@mh-hannover.de)

Learning objectives:

1. To discuss the advances in treatment and importance of imaging to guide therapy.
2. To understand the predictive role of CT and MRI.
3. To analyse the importance and respective roles of CT and MRI to monitor response to therapy.

08:30 - 10:00 Darwin (Room D2)

Radiographers

RC 114 The role of radiographers in ensuring quality in practice

RC 114-1/RC 114-2 08:30
Chairpersons' introduction
J. Ferda; Plzen/CZ (ferda@fpplzen.cz)
D. Pekarovic; Ljubljana/SI (dean.pekarovic@kclj.si)

Session objectives:

1. To understand the importance of quality in daily practice.
2. To appreciate the role of radiographers in promoting and delivering quality improvements.
3. To promote discussion on practical approaches to developing a quality culture in medical imaging.

RC 114-3 08:36
A. The radiographers' role in justification
P. Bezzina; Malta/MT (paul.bezzina@un.edu.mt)

Learning objectives:

1. To review the relevant EU legislation.
2. To understand the impact of legislation on the practice of radiographers.
3. To consider the potential for continuous professional development to support justification across modalities.

RC 114-4 08:59
B. Quality assurance to guarantee safe and secure procedures
M.-L. Ryan; Dublin/IE (marielouise.ryan@ucd.ie)

Learning objectives:

1. To review the concept of quality assurance and its impact on enhancing service delivery.
2. To recognise the need for quality assurance to be part of a radiographer's routine practice.
3. To discuss actual examples highlighting the impact of quality assurance on practices.

RC 114-5 09:22
C. Multimodality intervention: the importance of a quality culture
M. Halbwachs; Strasbourg/FR (madeline.halbwachs@chru-strasbourg.fr)

Learning objectives:

1. To understand the complexity of imaging quality assurance in multimodality interventional suites.
2. To be aware of how to manage quality assurance in this complex environment.
3. To consider potential continuous professional development needs in multimodality interventional imaging.

09:45 Panel discussion: Monitoring and ensuring quality: the professional role of radiographers

08:30 - 10:00 Descartes (Room D3)

Special Focus Session

SF 1a Evaluating oncologic treatment response in clinical practice and trials

SF 1a-1 08:30
Chairperson's introduction
M. Dewey; Berlin/DE

Session objectives:

1. To explain the role of imaging in response evaluation in clinical trials and routine.
2. To explain the role of integrating quantitative imaging into clinical practice.
3. To describe the role of quantification of metastases in clinical practice.

SF 1a-2 08:40
Insights from trials about endpoints for response evaluation in clinical practice
L. Fournier; Paris/FR

Learning objectives:

1. To list the features of trials using imaging for response evaluation.
2. To explain the limitations of applying this knowledge in clinical practice.
3. To describe how to best use imaging for response evaluation.

SF 1a-3 09:00
Integrating quantitative imaging into clinical practice
N. deSouza; Surrey/UK

Learning objectives:

1. To describe approaches to integrating quantitative imaging into clinical practice.
2. To explain the limitations of quantitative imaging in clinical practice.
3. To describe how to use quantitative imaging for clinical care.

SF 1a-4 09:20
Quantification of bone metastases becomes possible in clinical practice
F. Lecouvet; Brussels/BE (frederic.lecouvet@uclouvain.be)

Learning objectives:

1. To explain the possibilities of bone metastasis quantification.
2. To list the limitations of bone metastasis quantification.
3. To describe how to best use bone metastasis quantification in patient care.
E³ - European Diploma Prep Session

E³ 123
Paediatric
E³ 123-1 08:30
Chairperson’s introduction
J.-F. Chatel; Bordeaux/FR (jean-francois.chatel@chu-bordeaux.fr)

Session objectives:
1. To understand the imaging features of the most common congenital and neoplastic disorders of the brain in children and adolescents.
2. To describe the imaging presentations of the most common disorders of the lung and mediastinum in the paediatric age group.
3. To become familiar with the imaging features of important congenital, acute, and neoplastic diseases of the abdomen in children and adolescents.

E³ 123-2 08:36
A. Paediatric neuro imaging
M. Argyropoulou; Ioannina/GR (margyrop@cc.uoi.gr)

Learning objectives:
1. To describe the normal development of the brain.
2. To explain the most common congenital disorders of the brain.
3. To understand the most common brain tumours in children and adolescents.

E³ 123-3 09:04
B. Paediatric chest imaging
C. Owens; Doha/QA (owens.catherine.5@gmail.com)

Learning objectives:
1. To describe the normal development of the lung and mediastinum.
2. To explain imaging features of congenital disorders of the lung and mediastinum.
3. To understand the imaging manifestations of respiratory distress and bronchopulmonary dysplasia in infants.
4. To describe the most common tumours of the chest in children.

E³ 123-4 09:32
C. Paediatric abdominal imaging
T. A. Watson; London/UK

Learning objectives:
1. To understand the imaging features of congenital disorders of the abdomen.
2. To describe the diagnostic evaluation and imaging presentation of the most common emergencies in children according to age.
3. To understand the imaging presentation of the most common oncologic disorders of the abdomen in children.

E³ - Advanced Course: Artificial Intelligence

E³ 120
Artificial intelligence in radiology: the basics you need to know
E³ 120-1 08:30
Chairperson’s introduction: Artificial intelligence, machine learning and deep learning: what is the difference?
G. Langs; Vienna/AT

Session objectives:
1. To become familiar with the different definitions of artificial intelligence domains.
2. To understand that most of the current hype in radiology is about deep learning.
3. To learn about the history of deep learning and why it is so popular now.

E³ 120-2 08:36
A. Conventional machine learning vs deep learning
M. de Bruyne; Rotterdam, PLEASE SELECT/NL (marleen.debruine@erasmusmc.nl)

Learning objectives:
1. To understand the difference between machine learning and deep learning.
2. To learn about the various conventional machine learning techniques.
3. To learn about pros and cons of conventional machine learning vs deep learning.

E³ 120-3 09:04
B. Training data for deep learning: what is needed?
B. Glocker; London/UK (b.glocker@imperial.ac.uk)

Learning objectives:
1. To understand how deep learning algorithms are trained.
2. To learn about methods to perform deep learning in case of limited training data.
3. To understand the limits of deep learning approaches.

E³ 120-4 09:32
C. Clinical applications of artificial intelligence (AI) in medical imaging
N. Papanikolaou; Lisbon/PT (nickolas.papanikolaou@research.fchampalimaud.org)

Learning objectives:
1. To learn about the current state of the art of AI applications in medical imaging.
2. To focus on the current challenges related to AI development and deployment in clinical conditions.
3. To understand how AI will transform medical imaging in the long term.

E³ - Rising Stars Programme: Basic Session

BS 1
Radiologic anatomy: abdomen
Moderator:
S. Gourtsoyianni; Athens/GR

BS 1-1 08:30
Small bowel
S. A. Taylor; London/UK (csytaylor@yahoo.co.uk)

Learning objectives:
1. To appreciate the embryological development of the small bowel.
2. To learn about the anatomy of the small bowel relevant to radiological imaging.
3. To understand the pitfalls of the normal small bowel appearance during imaging interpretation.

BS 1-2 09:00
Anorectal
A. Palkó; Szeged/HU (palkoand@gmail.com)

Learning objectives:
1. To review the normal anatomy of the anorectum.
2. To learn how well depicted the different anatomical landmarks of the anorectum are with different available imaging methods.
3. To discuss the clinical scenarios for which it is necessary to be aware of the anatomy of the anorectum.

BS 1-3 09:30
Peritoneum and mesentery
P. H. Prassopoulos; Thessaloniki/GR (pprasopo@auth.gr)

Learning objectives:
1. To review the radiologic anatomy of peritoneal ligaments, mesenteries, and omenta on cross-sectional imaging.
2. To describe the most clinically important peritoneal compartments and fluid collections.
3. To discuss the key role of anatomy in the dissemination of malignancies or the restriction of inflammatory processes in the abdomen.

BS 1-4 10:00
Liver and biliary tract
S. A. Taylor; London/UK (csytaylor@yahoo.co.uk)

Learning objectives:
1. To understand the imaging features of most common congenital and neoplastic disorders of the liver and biliary tract in children and adolescents.

E³ - European Diploma Prep Session

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08:30 - 10:00 Room K

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2. To focus on the current challenges related to AI development and deployment in clinical conditions.
3. To understand how AI will transform medical imaging in the long term.
08:30 - 10:00  
**Tech Gate Auditorium**

**Special Focus Session**

**SF 1b**  
**CEUS in children**

**SF 1b-1 08:30**  
Chairperson's introduction  
M. Wozniak; Lublin/PL (mwozniak@hoga.pl)

**Session objectives:**
1. To learn about the current role of intravenous applications of CEUS (contrast-enhanced ultrasound) in the paediatric population.
2. To understand the technique and current place of contrast-enhanced voiding urosonography (ce-VUS) in children in diagnostic algorithms.
3. To become familiar with the usefulness of CEUS in paediatric trauma.

**SF 1b-2 08:40**  
Liver and extrahepatic intravenous applications  
D. Ključevšek; Ljubljana/SI (damjana.kljucevsek@siol.net)

**Learning objectives:**
1. To learn about the most common indications for intravenous CEUS in children.
2. To become familiar with the technique and the most common findings.
3. To discuss the limitations of the imaging method.

**SF 1b-3 09:00**  
Vesicoureteral (VU) reflux  
G. Roic; Zagreb/HR (goran.roic@kdb.hr)

**Learning objectives:**
1. To learn about the indications for CEUS in vesicoureteral reflux in children.
2. To become familiar with the technique and the most common findings.
3. To discuss the limitations of the imaging method in reflux evaluation.

**SF 1b-4 09:20**  
Traumas  
H.-J. Mentzel; Jena/DE (hans-joachim.mentzel@med.uni-jena.de)

**Learning objectives:**
1. To learn about when CEUS may be useful in trauma evaluation in children.
2. To become familiar with the technique and the most common findings.
3. To discuss the limitations of the imaging methods in a trauma setting.

09:40  
Panel discussion: Is off-label use of CEUS in children a cause for concern?

**SF 2a-2 10:40**  
Patient selection and assessment  
T. Bilhim; Lisbon/PT (tiagobilhim@hotmail.com)

**Learning objectives:**
1. To learn about the assessment methods and grading systems for prostate outflow obstruction.
2. To learn about consent and who are the optimal patients for treatments.
3. To understand which patients should not be primarily treated with prostate embolisation.

**SF 1b-3 10:57**  
Anatomy, imaging and planning  
C. R. Tapping; Oxford/UK (charles.tapping@ouh.nhs.uk)

**Learning objectives:**
1. To become familiar with the normal anatomy and blood supply of the prostate gland.
2. To learn about the pre-procedural imaging methodologies.
3. To understand pre-procedural planning, including blood and drug management.

**SF 2a-4 11:14**  
Embolisation technique  
K. Wilhelm; Bonn/DE (Kai.wilhelm@johanniter-kliniken.de)

**Learning objectives:**
1. To become familiar with the standard equipment required for prostate embolisation.
2. To learn about the techniques for selective cannulation of the prostate arteries.
3. To understand the role of dyna CT, and tricks and tips for embolisation.

**SF 2a-5 11:31**  
Outcome and results from trials  
F. Wolf; Vienna/AT (florian.wolf@meduniwien.ac.at)

**Learning objectives:**
1. To understand the technical success.
2. To become familiar with short and long term clinical success, and how it compares with medical and surgical techniques.
3. To be aware of the complications.

11:48  
Panel discussion: New developments in managing benign prostatic disease

10:30 - 12:00  
**Room O**

**Abdominal Viscera**

**RC 201**  
**Benign and malignant lesions in “forgotten organs”**

Moderator:  
I. Petkovska; New York, NY/US

**RC 201-1 10:30**  
A. Imaging of the spleen  
C. S. Reiner; Zurich/CH

**Learning objectives:**
1. To be aware of the most common benign and malignant lesions in the spleen and their differential diagnoses.
2. To know about imaging strategies and protocols with ultrasound, CT, and MRI of the spleen.
3. To know about the management of splenic lesions.

**RC 201-2 11:00**  
B. Imaging of mesentery and omentum  
M. J. Lahaye; Amsterdam/NL (M.J.Lahaye@gmail.com)

**Learning objectives:**
1. To understand the anatomical landmarks of the mesentery and omentum.
2. To be aware of the most common pathological findings of the mesentery and omentum.
3. To learn to avoid diagnostic mistakes when findings of the mesentery and omentum are seen.
C. Imaging of the gallbladder
B. J. Op de Beeck; Edegem/BE (bart.op.de.beeck@uza.be)

Learning objectives:
1. To become familiar with most common benign and malignant changes of the gallbladder.
2. To be aware of the strengths and shortcomings of different imaging techniques including ultrasound, CT, and MRI.
3. To understand diagnostic pitfalls of gallbladder imaging.

11:00 - 12:00 Coffee & Talk (open forum) Session
Organised by EuroSafe Imaging

C 10
Quality and safety in paediatric imaging

C 10-1/C 10-2 11:00
Chairpersons’ introduction
C. Granata; Genoa/IT
D. P. Frush; Durham, NC/US (dfrush@stanford.edu)

Session objectives:
1. To understand how to implement best practice in radiation protection of newborns in neonatal intensive care units.
2. To gain an overview on the most important aspects of optimisation of paediatric protocols in CT.
3. To learn how exposure indicators can be used for optimisation in paediatric digital radiography.

C 10-3 11:05
Radiation protection in the neonatal intensive care unit
S. Salerno; Palermo/IT

Learning objectives:
1. To learn the requisites of quality for radiologic studies commonly performed in NICU.
2. To gain an overview on related diagnostic reference levels (DRLs) and technique optimisation.
3. To gain an overview on shielding.

C 10-4 11:15
Optimising protocol parameters in paediatric conventional radiology and CT
E. Sorantin; Graz/AT (erich.sorantin@medunigraz.at)

Learning objectives:
1. To appreciate the importance of dose optimisation in children.
2. To learn how to optimise CT protocols in children to avoid the most common pitfalls.

C 10-5 11:25
Understanding dose indices and exposure indicators in digital radiography
R. Seuri; HUS, Helsinki/FI (raija.seuri@hus.fi)

Learning objectives:
1. To understand what exposure indicators are and what they are not.
2. To learn how exposure indicators play a role in ensuring correct use of the equipment and optimising radiation dose in paediatric digital radiology.

11:35
Open forum discussion
**SF 2b**

My three most dreaded head and neck requests

**SF 2b-1 10:30**
Chairperson’s introduction
P. Golofit; Szczecin/PL (piotrgolofit@gmail.com)

**Session objectives:**
1. To address the dilemmas of common requests in head and neck radiology.
2. To discuss imaging approaches in tinnitus, lymphadenopathies, and hoarseness.
3. To debate negative imaging findings in symptomatic patients.

**SF 2b-2 10:36**
Tinnitus
B. Verbist; Leiden/NL (b.m.verbist@lumc.nl)

**Learning objectives:**
1. To review imaging modalities used for the workup of tinnitus.
2. To give an overview of underlying lesions in pulsatile tinnitus.
3. To compare imaging for pulsatile and non-pulsatile tinnitus.

**SF 2b-3 10:57**
Enlarged lymph nodes
R. Maroldi; Brescia/IT (roberto.maroldi@unibs.it)

**Learning objectives:**
1. To discuss the imaging approach for suspected enlarged lymph nodes.
2. To review the differential diagnoses in lymphadenopathies.
3. To advise when fine needle aspiration cytology or biopsy is needed.

**SF 2b-4 11:18**
Hoarseness
E. Vassallo; Msida/MT (edithvassallo@gmail.com)

**Learning objectives:**
1. To explain the value of CT and MRI in the evaluation of hoarseness.
2. To show lesions causing hoarseness.
3. To reflect on the incidence of underlying lesions in hoarseness.

**11:39**
Panel discussion: How to deal with symptomatic patients without definite imaging findings?

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**RC 212**

Fluoroscopy: a mainstay state of the art in paediatric radiology

**RC 212-1 10:30**
Chairperson’s introduction
N. Mitreska; Skopje, MK/MK

**Session objectives:**
1. To learn about the most common indications for fluoroscopy in neonates, infants and children.
2. To optimise protocols with a special concern for dose management.
3. To be aware of limits and pitfalls.

**US 2**

Ultrasound (US) incidental findings

**US 2-1 10:30**
Thyroid and lymph node
D.-A. A. Clevert; Munich/DE (Dirk.Clevert@med.uni-muenchen.de)

**Learning objectives:**
1. To learn how to manage incidental findings.
2. To appreciate the accuracy of multiparametric ultrasound imaging for immediate diagnosis of incidentaloma.
3. To understand the differential diagnosis and correct or best multimodalities management of incidental findings.

**US 2-2 10:50**
Liver and pancreas
M. D’onofrio; Verona/IT (mirko.donofrio@univr.it)

**Learning objectives:**
1. To learn how to manage incidental findings.
2. To appreciate the accuracy of multiparametric ultrasound imaging for immediate diagnosis of incidentaloma.
3. To understand the differential diagnosis and correct or best multimodalities management of incidental findings.

**US 2-3 11:10**
Spleen and kidney
M. Bertolotto; Trieste/IT (bertolot@units.it)

**Learning objectives:**
1. To learn how to manage incidental findings.
2. To appreciate the accuracy of multiparametric ultrasound imaging for immediate diagnosis of incidentaloma.
3. To understand the differential diagnosis and correct or best multimodalities management of incidental findings.
Testis and ovary
P. S. Sidhu; London/UK (paulsidhu@nhs.net)

Learning objectives:
1. To understand how to manage incidental findings.
2. To appreciate the accuracy of multiparametric ultrasound imaging for immediate diagnosis of incidentaloma.
3. To understand the differential diagnosis and correct or best multimodalities management of incidental findings.

11:50
Panel discussion: Diagnostics and treatment

10:30 - 12:00 Room K

Neuro
RC 211
Sellar and suprasellar lesions
RC 211-1 10:30
Chairperson’s introduction
M. Z. Karlovic Vidakovic; Mostar/BA (karlovicmarijana@yahoo.com)

Session objectives:
1. To present an imaging strategy for imaging pituitary adenoma.
2. To learn about anatomical variations and congenital sellar pathology.
3. To become familiar with craniopharyngioma and Rathke cleft cyst.

RC 211-2 10:35
A. Anatomy, variants and function of the pituitary gland
S. Looby; Dublin/IE (seamuslooby@beaumont.ie)

Learning objectives:
1. To review the anatomy of the sellar and parasellar region.
2. To recognise sellar variants.
3. To be able to appropriately image the patient with diabetes insipidus.

RC 211-3 10:58
B. Imaging of sellar and suprasellar lesions
Z. Rumboldt; Rijeka/HR (puz3@yahoo.com)

Learning objectives:
1. To recognise pituitary and sellar neoplasms other than adenoma.
2. To describe perisellar and suprasellar pathology.
3. To provide an overview of sellar and suprasellar childhood lesions.

RC 211-4 11:21
C. Post-treatment findings and follow-up
F. Bonneville; Toulouse/FR (bonneville.f@chu-toulouse.fr)

Learning objectives:
1. To become familiar with the different types of pituitary adenoma.
2. To define the most effective imaging strategy for pituitary adenoma.
3. To learn about the role of MRI after surgical and/or medical treatment.

11:44
Panel discussion: Imaging sellar and suprasellar lesions

10:30 - 12:00 Room M 1

Radiographers
RC 214
The role of medical imaging in radiotherapy
RC 214-1/RC 214-2 10:30
Chairpersons’ introduction
C. A. Beardmore; London/UK (charlotteb@sor.org)
K. Galumyan; Yerevan/AM

Session objectives:
1. To understand CT and MRI specifications for treatment and planning.
2. To be aware of imaging positioning verification options.
3. To highlight the radiographers’ role in radiotherapy planning and dosimetry.

10:30 - 12:00 Room M 2

E³ - Advanced Course: Hot Topics in Emergency Radiology

E³ 218
Pregnancy and postpartum abdominal acute conditions
E³ 218-1 10:30
Chairperson’s introduction
M. de la Hoz Polo; London/UK (mdelahozpolo@gmail.com)

Session objectives:
1. To review imaging of common acute abdominal and pelvic conditions (medical and surgical) presenting during pregnancy.
2. To review imaging of common postpartum period conditions.
3. To describe the interventional radiology procedures used to treat ante- and postpartum complications of pregnancy.

E³ 218-2 10:36
A. The acute abdomen in pregnancy
M. Javitt; Haifa/IL (m_javitt@rambam.health.gov.il)

Learning objectives:
1. To briefly describe the role of CT, MRI, and US in the detection of acute abdominal conditions during pregnancy, and radiation dose effect on the foetus (radiation dose, use of contrast agents, suggested protocol, and teratogenicity).
2. To review the imaging findings of abdominal non-pregnancy related complications such as appendicitis, urolithiasis, hepatobiliary conditions (fatty liver of pregnancy, cholestasis in pregnancy, HELLP syndrome), intestinal obstruction, and vascular related complications (ovarian vein thrombosis, splenic artery aneurysm rupture).
3. To review the imaging findings of abdominal pregnancy related complications such as ectopic pregnancy, molar pregnancy, placental abruption, adrenal torsion, and pelvic inflammatory disease.
1. To become familiar with the normal postpartum appearances on US, CT, and MRI, both immediately and up to 6 weeks postpartum.
2. To review imaging of common postpartum period conditions such as causes of postpartum haemorrhage, retaining products of conception, puerperal septic thrombophlebitis, and other infective/inflammatory puerperal conditions.
3. To discuss protocols for breastfeeding and expressing of breast milk in relation to CT and MRI imaging.

1. To learn about clinical symptoms and diagnosis of deep vein thrombosis (DVT).
2. To become familiar with the optimal diagnostic tools.
3. To describe the intervention radiology procedures that are used to treat various complications of the postpartum period, such as uterine artery embolisation (UAE) for cases of post-partum haemorrhage, drainage of postcesarean abscess collection, and treatment of vesicouterine fistula.

Vascular
RC 215
Venous thrombotic disease

RC 215-1 10:30
Chairperson's introduction
M. Krokidis; Athens/GR (mkrokidis@hotmail.com)

Session objectives:
1. To understand the importance of the appropriate diagnosis and treatment of acute and chronic venous disease.
2. To become familiar with the optimal diagnostic tools.
3. To learn when and how interventional radiology techniques can help in venous thromboembolic disease.

RC 215-2 10:35
A. Acute deep vein thrombosis: diagnosis, interventional radiology (IR) treatment and outcomes
G. Maleux; Leuven/BE

Learning objectives:
1. To learn about the clinical symptoms and diagnosis of deep vein thrombosis (DVT).
2. To become familiar with the different conservative and IR treatment options.
3. To discuss the short-, mid-, and long-term outcomes.

RC 215-3 10:58
B. Diagnosis and treatment of central venous occlusions
S. Ganadli; Lausanne/CH (Salah.Ganadli@chuv.ch)

Learning objectives:
1. To learn about clinical symptoms and the appropriate diagnostic tools.
2. To become familiar with which patients IR treatment is indicated.
3. To understand how to treat a central venous occlusion using IR methods.

RC 215-4 11:21
C. Chronic deep vein thrombosis: diagnosis, IR treatment and outcomes
R. Leffroy; Dijon/FR

Learning objectives:
1. To learn about the clinical symptoms and diagnosis of chronic DVT.
2. To become familiar with preinterventional imaging and appropriate treatment planning.
3. To discuss different IR techniques and outcomes.

Panel discussion: Should emergency treatment for deep vein thrombosis become part of IR service?
Learning objectives:
1. To learn how deep learning can be used to improve CT image quality.
2. To understand how deep learning can be used to speed up CT image acquisition.
3. To learn about clinical applications of deep learning based CT reconstruction.

Learning objectives:
1. To understand the impact of tumour heterogeneity on diagnosis and treatment.
2. To learn the basics of quantifying heterogeneity in tumours.
3. To review the future impact of imaging heterogeneity in tumours.

Learning objectives:
1. To understand that the mobility of radiology trainees is an indispensable prerequisite to facing new challenges, promoting collaboration among centres/systems that cannot remain isolated, positively impacting the quality of research, and applying artificial intelligence to medical imaging.
2. To become familiar with the need to promote scientific international multicentre collaboration to identify a best practice, to standardise it, and to share it.
3. To learn about ESR’s role supporting international training opportunities for young radiologists, enhancing scientific mobility, and promoting cooperation between centres of different countries.
4. To become familiar with the cultural-knowledge and the networks developed during mobility that can be used by the trainees to advance in their career.

Learning objectives:
1. To learn how to optimise the acquisition of images for quantitative imaging.
2. To review current strategies to explore biological heterogeneity.
3. To become familiar with the concepts behind quantification, including limits and pitfalls of features extraction.

Learning objectives:
1. To learn about tumour heterogeneity.
2. To understand image processing which may impact quantification.
3. To review limits and pitfalls of features extraction.

Learning objectives:
1. To assess mammographic image quality and mammographic breast density.
2. To recognise and name main imaging findings using the breast density.
3. To become familiar with all aspects of the exchange fellowship program.
4. To become familiar with the cultural-knowledge and the networks developed during mobility that can be used by the trainees to advance in their career.

Learning objectives:
1. To learn about clinical applications of deep learning based CT acquisition.
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E³ 24A-2 13:15
Differences in mammography techniques and image analysis
S. Zackrisson; Malmö/SE (sophia.zackrisson@med.lu.se)

Learning objectives:
1. To learn about the technique and purpose of tomosynthesis compared to digital mammography.
2. To understand differences in reading a screening and diagnostic mammography.
3. To become familiar with work-up possibilities after a positive screening mammography, taking into account psychological consideration.

Coffee & Talk (open forum) Session

C 19
Structured reporting: how to provide the key information - application to thoracic imaging

C 19-1 12:45
Chairperson's introduction
H.-U. Kauczor; Heidelberg/DE

Session objectives:
1. To explain the advantages of structured reports.
2. To illustrate their use in dedicated clinical indications.
3. To understand their role for practice and research.

C 19-2 12:50
Pulmonary embolism
B. Ghaye; Brussels/BE (benoit.ghaye@uclouvain.be)

Learning objectives:
1. To learn how to comment on the quality of computed tomography angiography (CTA).
2. To be able to indicate the level of arterial obstruction.
3. To learn how to report signs of pulmonary embolism severity.

C 19-3 12:58
Pulmonary nodules in lung cancer screening
M. Silva; Parma/IT (mariosilvamed@gmail.com)

Learning objectives:
1. To learn about which nodule characteristics to report.
2. To be informed of which extranodular findings to report.
3. To understand the importance of mentioning guidelines for management.

C 19-4 13:06
Diffuse parenchymal lung disease
H. Prosch; Vienna/AT (helmut.prosch@meduniwien.ac.at)

Learning objectives:
1. To become familiar with the pivotal patterns.
2. To learn how to assess change in surveillance or therapy response.
3. To consolidate knowledge about quantitative imaging biomarkers.

13:14
Open forum discussion

E³ - The Beauty of Basic Knowledge: Pancreas

E³ 25A
Acute pancreatitis
Moderator:
R. Manfredi; Rome/IT

E³ 25A-1 12:45
Atlanta classification of acute pancreatitis
T. L. Bollen; Nieuwegein/NL (tlbollen@hotmail.com)

Learning objectives:
1. To understand grading of acute pancreatitis: Atlanta classification.
2. To learn about the clinical impact of Atlanta classification.
3. To understand the follow up of acute pancreatitis.

E³ 25A-2 13:15
Role of imaging
C. Triantopoulou; Athens/GR (ctriantopoulou@gmail.com)

Learning objectives:
1. To learn about the diagnosis of acute pancreatitis.
2. To understand how to apply Atlanta classification to imaging.
3. To learn about new trends in the diagnosis of acute pancreatitis.

Coffee & Talk 3

EDiR Session

EDiR 1
An instrument to develop excellence in your career: practical session (part 1)
Moderator:
L. Oleaga Zufiria; Barcelona/ES

EDiR 1-1 12:45
EDiR teaser
L. Oleaga Zufiria; Barcelona/ES (lauraoleaga@gmail.com)

Learning objectives:
1. To present the EDiR examination.
2. To show the structure of the EDiR exam.
3. To review some practical cases: multiple response questions, short cases, and CORE cases.

EDiR 1-2 13:05
Tips from an EDiR holder
A. Pons Escoda; Barcelona/ES (aponse@hotmail.com)

Learning objectives:
1. To review ten essential tips to succeed in the EDiR.
2. To highlight the importance of the EDiR.
3. To explain the advantages of having the EDiR.

EuroSafe Imaging Session

EU 3
Cumulative dose: too often and too much

EU 3-1/EU 3-2 14:00
Chairpersons' introduction
K. Applegate; Zionsville, IN/US (keapple5123@gmail.com)
G. Frija; Paris/FR (guylfr@aphp.fr)

Session objectives:
1. To understand the clinical context of cumulative dose.
2. To report on some data from Europe.
3. To propose technical and clinical solutions to avoid a too high cumulative dose.
EU 3-3 14:10
Cumulative doses: an awareness problem
J. Vassileva: Vienna/AT (j.n.vassileva@gmail.com)

Learning objectives:
1. To present a summary of the recent data on patient cumulative exposure from recurrent imaging procedures, and the actions proposed during the IAEA meeting on this topic.
2. To ensure medical benefits always exceed risks for patients who need frequent radiological imaging for diagnosing and monitoring their diseases.

EU 3-4 14:30
Defining scenarios with a risk for cumulative dose
F. Kainberger: Vienna/AT (franz.kainberger@meduniwien.ac.at)

Learning objectives:
1. To identify scenarios where patients have an increased probability of reaching or exceeding the cumulative dose limits.
2. To develop methods of early detection of scenarios with a potential higher dose risk, and how alert systems can be implemented.
3. To learn how to document and communicate in situations with a higher risk of cumulative dose with a view on the patient’s outcome.

EU 3-5 14:50
EuroSafe Imaging: opportunities to reduce cumulative doses in children
R. Seuri: HUS, Helsinki/FI (raija.seuri@helsinki.fi)

Learning objectives:
1. To illustrate that there are groups of patients at risk of receiving high cumulative doses during childhood.
2. To understand the role of justification in avoiding unnecessary high cumulative doses.
3. To understand the role of dose tracking in optimisation.

15:10
Panel discussion: Next steps for reducing cumulative doses

14:00 - 15:30 Room O

Chest

RC 304
Thoracic emergencies: part 1

Moderator: B. Ghaye, Brussels/BE

RC 304-1 14:00
A. Chest trauma
M. Brink: Nijmegen/NL (mobrink@hotmail.com)

Learning objectives:
1. To describe the CT features of pulmonary contusion.
2. To learn about signs of diaphragmatic rupture.
3. To know when to suspect and how to confirm aortic injury.

RC 304-2 14:22
B. Lung ultrasound: only for the intensive care doctors?
D. Lichtenstein: Paris/FR (D.Lichten@free.fr)

Learning objectives:
1. To become familiar with the normal and abnormal findings.
2. To be aware of the limits of lung ultrasound.
3. To learn how to incorporate lung ultrasound in the diagnostic workup of intensive care patients.

RC 304-4 14:45
C. Infectious emergencies
I.-J. Hartmann: Zwijndrecht/NL (i.j.hartmann@gmail.com)

Learning objectives:
1. To learn about signs of invasive fungal infections.
2. To review the signs of pneumocystis infection.
3. To learn about acute viral infections of the chest.

RC 304-3 15:07
D. Diagnosing pulmonary embolism (PE)
G. Aviram: Tel-Aviv/IL (aviramgalit@hotmail.com)

Learning objectives:
1. To learn about optimising CT angiography indications.
2. To be aware of the causes of imaging inconclusiveness.
3. To learn how to identify signs of acute right ventricular dysfunction.

14:00 - 15:30 Room E

E³ - Rising Stars Programme: Basic Session

BS 3
Musculoskeletal: essentials of trauma imaging

Moderator: A. S. Vieira; Porto/PT

BS 3-1 14:00
Fractures and dislocations in the extremities
R. Sutter: Zurich/CH

Learning objectives:
1. To describe imaging features of fractures and dislocations.
2. To explain imaging findings that help in identifying subtle fractures.
3. To explain imaging features of fracture healing and non-healing.

BS 3-2 14:30
Acetabular fractures demystified
U. Aydingoz: Ankara/TR (ustunaydingoz@yahoo.com)

Learning objectives:
1. To describe the rationale behind the classification of acetabular fractures.
2. To explain imaging findings of acetabular fractures important for the orthopaedist.

BS 3-3 15:00
Cervical spine trauma
P. J. MacMahon: Dublin/IE (pmacmahon@mater.ie)

Learning objectives:
1. To describe the mechanisms of cervical spine injury.
2. To explain imaging findings of cervical spine injury.

14:00 - 15:30 Room F1

Oncologic Imaging

RC 316
Peritoneal carcinomatosis: the role of imaging in detection and treatment planning?

Moderator: M. J. Lahaye; Amsterdam/NL

RC 316-1 14:00
A. Detection and characterisation: tips and tricks
L. Fournier: Paris/FR

Learning objectives:
1. To become familiar with imaging strategies for assessment of peritoneal carcinomatosis.
2. To discuss multimodal concepts for detection and characterisation.
3. To learn about the limitations of non-invasive imaging approaches.

RC 316-2 14:30
B. Surgical view: citoreductive surgery
A.-S. Bats: Paris/FR (anne-sophie.bats@aphp.fr)

Learning objectives:
1. To understand the surgeon’s view on imaging strategies.
2. To learn about surgical strategies for treatment of peritoneal carcinomatosis.
3. To discuss the role of the radiologist in preoperative management.
Postgraduate Educational Programme

**RC 316-3** 15:00  
C. Imaging in treatment planning and follow-up  
G. Zamboni; Verona/IT (gzamboni@hotmail.com)

**Learning objectives:**  
1. To become familiar with the role of imaging for systemic and local treatment planning.  
2. To discuss the value of imaging modalities.  
3. To understand the limitations and pitfalls of imaging.

**14:00 - 15:30**  
**Room F2**

**Breast**

**RC 302**  
**New developments in mammographic breast imaging**

**RC 302-1** 14:00  
**Chairperson’s introduction**  
M. Sklair-Levy; Ramat Gan/IL (miri.sklairlevy@sheba.health.gov.il)

**Session objectives:**  
1. To recognise the advantages and disadvantages of digital breast tomosynthesis and contrast enhanced mammography techniques.  
2. To learn about the challenges between different 3D mammography systems.  
3. To understand the future potential of new breast imaging techniques in lesion assessment.

**RC 302-2** 14:05  
A. Tomo, 2D-Synthetic and artefacts: is it the same in all machines?  
I. Sechopoulos; Nijmegen/NL (ioannis.sechopoulos@radboudumc.nl)

**Learning objectives:**  
1. To know the different scan and reconstruction protocols.  
2. To learn the impact on resolution and lesion delineation.  
3. To get an idea of adequate quality control in tomosynthesis.

**RC 302-3** 14:28  
B. Contrast mammography alone or combined with tomosynthesis: which is the way to go?  
P. Clauser; Vienna/AT (clauser.p@hotmail.it)

**Learning objectives:**  
1. To learn the basics of contrast enhanced mammography.  
2. To understand the role of these new techniques in different clinical settings.  
3. To understand the new potential of combining mammography with molecular imaging, optical imaging, and texture analysis.

**RC 302-4** 14:51  
C. Phase-contrast mammography and future techniques  
M. Stampanoni; Zurich/CH (marco.stampanoni@psi.ch)

**Learning objectives:**  
1. To understand the technique of phase-contrast breast imaging.  
2. To learn about the potential in lesion differentiation.  
3. To get an idea of further implementation and developments.

15:14  
Panel discussion: Mammography, digital breast tomosynthesis, and contrast-enhanced mammography: where will we stand in 10 years?
RC 307-3 14:28
B. The “functioning” adrenal mass  
A. Cieszanowski; Warsaw/PL (andrezc.ciesz@wum.edu.pl)

Learning objectives:
1. To understand the role of radiology in patients with “functioning” adrenal tumours.
2. To know how to look for small/difficult to see “functioning” lesions.
3. To know how to provide guidance to the surgeon who is planning a minimally invasive surgical approach.

RC 307-4 14:51
C. “Non-neoplastic” retroperitoneal diseases  
M. Scaglione; Middlesborough/UK (mscaglione@tiscali.it)

Learning objectives:
1. To know the imaging features of retroperitoneal abscesses and haematomas.
2. To understand the role of imaging in patients with retroperitoneal fibrosis.
3. To understand how radiology can help planning management of these lesions.

15:14
Panel discussion: Highlights in non-renal retroperitoneal masses

14:00 - 15:30 Darwin (Room D2)
EFRS Workshop

EFRS WS 3
Growing radiography research
Moderators:  
A. England; Manchester/UK  
J. McNulty; Dublin/IE

EFRS WS 3-1 14:00
Building research collaboration: my top tips  
C. Buissink; Groningen/NL (c.buissink@pl.hanze.nl)

Learning objectives:
1. To explore key considerations to establishing good research collaborations.
2. To appreciate how to avoid unsuccessful collaborations.

EFRS WS 3-2 14:15
The EFRS Research Hub  
L. A. Rainford; Dublin/IE (louise.rainford@ucd.ie)

Learning objectives:
1. To understand the purpose of the EFRS Research Hub.
2. To review aspects of the EFRS Research Hub launched at ECR 2019.
3. To consider future opportunities and the value of the EFRS Research Hub.

EFRS WS 3-3 14:30
Grant writing: my top tips  
K. Knapp; Exeter/UK (K.Knapp@exeter.ac.uk)

Learning objectives:
1. To explore key considerations for writing a successful grant application.
2. To consider intellectual property issues when writing a grant.
3. To understand the common pitfalls in grant writing.

EFRS WS 3-4 14:45
Considering doctoral studies: my top tips  
J. McNulty; Dublin/IE (jonathan.mcnutty@ucd.ie)

Learning objectives:
1. To learn about the current status of doctoral opportunities across Europe.
2. To explore key considerations to make before commencing doctoral studies.

15:00
Making the most of the EFRS Radiographer Research Network  
A. England; Manchester/UK (A.England@salford.ac.uk)

Learning objectives:
1. To learn about the EFRS Radiographer Research Network.
2. To consider how the EFRS Radiographer Research Network could support research-related activities.

15:15
Panel discussion: Is radiographer research essential for all radiographers?

14:00 - 15:30 Room G
GI Tract

RC 301
Imaging the acute abdomen: new insights
Moderator:  
D. E. Malone; Dublin/IE

RC 301-1 14:00
A. Acute mesenteric ischaemia  
M. Ronot; Clichy/FR (maxime.ronot@aphp.fr)

Learning objectives:
1. To learn about the different types of acute mesenteric ischaemia and the clinical conditions in which they occur.
2. To understand how the imaging features are related to the underlying pathophysiology.
3. To appreciate the role of endovascular interventional procedures in the management of acute mesenteric ischaemia.

RC 301-2 14:30
B. Low-dose abdominal CT for evaluating suspected appendicitis  
K. H. Lee; Seongnam/KR (kholeemail@gmail.com)

Learning objectives:
1. To emphasise the need for reducing radiation exposure in adolescents and young adults with suspected appendicitis.
2. To critically review published evidence indicating that low-dose CT is comparable with normal-dose CT for diagnostic performance and clinical outcome.
3. To review low-dose CT imaging techniques and other practical issues for the successful implementation of low-dose CT in practice.

RC 301-3 15:00
C. Acute colonic diverticulitis  
S. Schmidt; Lausanne/CH (sabine.schmidt@chuv.ch)

Learning objectives:
1. To review the typical and atypical imaging features of acute colonic diverticulitis and their influence on patient management.
2. To become familiar with the complications and the most important differential diagnoses of acute colonic diverticulitis.
3. To understand the importance of image-guided interventions for the management of complicated acute colonic diverticulitis.

14:00 - 15:30 Room K

E³ - European Diploma Prep Session

E³ 323
Interventional

E³ 323-1 14:00
Chairperson’s Introduction  
J. I. Bilbao; Pamplona/ES (jibilbao@unav.es)

Session objectives:
1. To understand the principles and techniques of angiography and image-guided interventions.
2. To become familiar with the most common percutaneous and intra-arterial interventions in oncology.
3. To describe the most common vascular interventions.
Postgraduate Educational Programme

E³ 322-2 14:06
A. Basic principles of angiography and image-guided interventions
N. Tičinović; Zagreb/HR

Learning objectives:
1. To describe the normal anatomy and normal variants of the arterial and venous vascular system.
2. To understand the importance of pre-procedure planning and selection of image guidance techniques.
3. To explain basic percutaneous image-guided techniques, including arterial access as well as biopsy and drainage.

E³ 323-3 14:34
B. Image-guided interventions in oncology
T. Bilhim; Lisbon/PT (tiagobilhim@hotmail.com)

Learning objectives:
1. To describe the basic technical methodological principles and indications of imaging-guided interventions in oncological disorders, including thermal ablation techniques.
2. To understand the principles and indications for vascular interventions in cancer, e.g., transarterial treatment of liver tumours.
3. To become familiar with post-treatment follow-up, highlighting normal and abnormal pathological imaging findings.

E³ 323-4 15:02
C. Vascular interventions
D. Kuhelj; Ljubljana/SI (dimitrij.kuhelj@guest.arnes.si)

Learning objectives:
1. To become familiar with the pretreatment imaging flow-chart in atherosclerotic diseases.
2. To describe indications and techniques for arterial angioplasty and stenting.
3. To explain techniques of arterial embolisation and coiling, as well as thromboaspiration.

14:00 - 15:30 Room M 2

E³ - Advanced Course: Hot Topics in Emergency Radiology

E³ 318
Assessing neurological complications and brain death in ICU patients

E³ 318-1 14:00
Chairperson’s introduction
M. C. Çalli; Izmir/TR (cem.calli@gmail.com)

Session objectives:
1. To become familiar with common and less frequent neurological complications in ICU patients.
2. To be able to proactively help the ICU team to best diagnose and manage these complications.
3. To become familiar with the protocols in imaging of brain death and potential organ donation.

E³ 318-2 14:05
A. CT and MRI in neurologically impaired ICU patients
F. J. A. Meijer; Nijmegen/NL (Anton.Meijer@radboudumc.nl)

Learning objectives:
1. To understand the main neurological complication in intensive care patients.
2. To understand how to assess when the anatomy is abnormal.
3. To show clinical cases where structures are too large or too small.

E³ 318-3 14:30
B. Brain death evaluation
O. Bronov; Moscow/RU (doctorbronov@gmail.com)

Learning objectives:
1. To become familiar with the most typical constellations.
2. To learn about appropriate imaging protocols.
3. To understand the context of transplantation units and imaging of potential organ donors.

E³ 318-4 14:55
C. Imaging of potential organ donors
S. Roosendaal; Amsterdam/NL (stefanmed@fastmail.nl)

Learning objectives:
1. To learn about correct indication.
2. To learn about appropriate imaging protocols.
3. To be able proceed appropriately in the case of inconclusive findings.

15:20
Panel discussion: Combined imaging of brain death and organ donation: is this feasible?

14:00 - 15:30 Room M 3

Head and Neck

RC 308
Head and neck imaging: when does it become abnormal?
Moderator:
N. Thieme; Berlin/DE

RC 308-1 14:00
A. Normative measures in the temporal bone
F. Veillon; Strasbourg/FR (francisveillon@chu-strasbourg.fr)

Learning objectives:
1. To learn about the normal appearance of the temporal bone.
2. To understand how to assess when the anatomy is abnormal.
3. To show clinical cases where structures are too large or too small.

RC 308-2 14:22
B. Normative measures in the orbit
R. Kohler; Sion/CH

Learning objectives:
1. To understand differences in the size and shape of the eye.
2. To learn about the normal appearance and anatomical variations of the optic nerve.
3. To use clinical cases to discuss normative measures of the soft tissue structures in the orbit.

RC 308-3 14:45
C. Anatomical variations of importance in dental implant planning
S. Cappabianca; Naples/IT (salvatore.cappabianca@unicampania.it)

Learning objectives:
1. To discuss the role of cone beam CT in dental imaging.
2. To review anatomical variations of the mandibular canal and interforaminal region.
3. To show examples of implant injuries.

RC 308-4 15:07
D. Growing up or growing wrong
B. Verbist; Leiden/NL (b.m.verbist@lumc.nl)

Learning objectives:
1. To learn about the normal development of the head and neck area.
2. To understand how to assess clinically-relevant developmental defects.
3. To highlight important variants using clinical cases.
14:00 - 15:30  Room M 4

**E³ - Advanced Course: Interactive Teaching Session for Young (and not so Young) Radiologists**

**E³ 321**  
Paediatric radiology for the general radiologist

**E³ 321-1 14:00**  
A. Pitfalls in paediatric chest and abdomen  
B. Coley; Columbus, OH/US (brian.coley@cchmc.org)

*Learning objectives:*  
1. To review the basic principles of the paediatric chest radiographs through common mistakes.  
2. To emphasise pitfalls when imaging the paediatric abdomen.  
3. To learn to avoid the most common pitfalls.

**E³ 321-2 14:45**  
B. Paediatric musculoskeletal imaging: normal variants or real injuries?  
F. M. Saez Garmentia; Bilbao/ES (fersaez@yahoo.com)

*Learning objectives:*  
1. To become familiar with the normal variants.  
2. To identify the key imaging findings to differentiate between normal variants and disease.  
3. To learn how to integrate age, location, and clinical history with the radiological features before establishing a diagnosis.

14:00 - 15:30  Room M 5

**E³ - Advanced Course: Artificial Intelligence**

**E³ 320**  
Artificial intelligence and translations to clinical practice

**E³ 320-1 14:00**  
Chairperson's introduction  
W. J. Niessen; Rotterdam/NL (w.j.niessen@erasmusmc.nl)

*Session objectives:*  
1. To become familiar with international initiatives to bring machine learning and radiology communities together.  
2. To discuss how societies such as ESR, RSNA, and ACR should work together with the machine learning community to bring artificial intelligence into clinical practice.  
3. To understand the complementary nature of data science and medical imaging.

**E³ 320-2 14:06**  
A. Artificial intelligence (AI) use cases  
K. Dreyer; Boston, MA/US

*Learning objectives:*  
1. To introduce the audience to the AI use cases as developed by the American College of Radiology.  
2. To learn about an ecosystem for developing AI algorithms that can be translated to clinical practice.  
3. To discuss hurdles and proposed solutions in getting AI techniques regulatory approved.

**E³ 320-3 14:34**  
B. Challenges to objectively compare performance of AI applications  
L. Maier-Hein; Heidelberg/DE (l.maier-hein@dkfz-heidelberg.de)

*Learning objectives:*  
1. To learn the outcomes of a review of more than 150 challenges in medical imaging.  
2. To learn about the metrics allowing the objective evaluation of AI algorithm performance.  
3. To understand how new developments in AI challenges help to objectively evaluate the performance of algorithms.

16:00 - 17:30  Room X

**Imaging Informatics**

**RC 405**  
Effect of the EU General Data Protection Regulations (GDPR): moving patients' data across hospitals, regions, countries

*Moderator:*  
O. Ratib; Geneva/CH

**RC 405-1 16:00**  
A. The GDPR: an overview  
C. D. Becker; Geneva/CH

*Learning objectives:*  
1. To understand the content of the GDPR.  
2. To understand the effects of GDPR for scientific use of imaging data.  
3. To become familiar with the terminology as used in GDPR.

**RC 405-2 16:25**  
B. Transferring patients' data across hospitals, regions, countries: pros and cons  
E. Kotter; Freiburg/DE (elmar.kotter@uniklinik-freiburg.de)

*Learning objectives:*  
1. To understand how imaging data can be shared.  
2. To learn about the influence of GDPR on data sharing.  
3. To appreciate the challenges when sharing imaging data.

**RC 405-3 16:50**  
C. Anonymous or pseudo-anonymous 2D-3D data: is privacy really warranted?  
T. de Bondt; Antwerp/BE (timo.debondt@gmail.com)

*Learning objectives:*  
1. To learn about the methods to de-identify (imaging) data.  
2. To understand the pitfalls of de-identification methods.  
3. To understand how to approach de-identification for research.

**RC 405-4 17:10**  
D. Management of data for clinical trials  
D. Regge; Candiolo-Torino/IT

*Learning objectives:*  
1. To learn about data management for clinical trials.  
2. To understand imaging biobank concepts.  
3. To appreciate the requirements for building proper imaging biobanks.
Coffee & Talk (open forum) Session
Organised by ESOR

C 2 Quality and standards
Moderator:
H.-U. Kauczor; Heidelberg/DE

C 2-1 16:00
What a fellow should learn about “Quality and Standards”
A. Brady; Cork/IE (adrianbrady@me.com)

Learning objectives:
1. To understand the need for common standards in the delivery of radiology services.
2. To understand the ways the quality of radiological service delivery can be measured and enhanced.
3. To appreciate the benefits of patient satisfaction and safety when maintaining quality standards in radiology.

C 2-2 16:10
What a fellow wants to learn about “Quality and Standards”
M. Marolt Music; Ljubljana/SI (mmusic@onko-i.si)

Learning objectives:
1. To understand the importance of quality control in a radiology department.
2. To become familiar with radiology standards in a fellow's daily practice.
3. To consider the role of radiography fellows in improving quality in radiology.

C 2-3 16:20
Role of radiographers in “Quality and Standards”
H. H. Hjemly; Sorumsand/NO (hakon@radiograf.no)

Learning objectives:
1. To learn about radiographers’ scope of practice related to quality assurance and quality control in medical imaging.
2. To understand the essential role radiographers have in the radiological team to assure the delivery of safe, cost-effective, and high-quality diagnostic imaging.
3. To become familiar with recommended learning objectives related to quality and standards for radiography students.

C 2-4 16:30
Role of structured reporting to foster “Quality and Standards”
W. Sommer; Munich/DE

Learning objectives:
1. To learn about different forms of structured reporting.
2. To understand the implication of structured reporting on report quality and completeness.

16:40
Open forum discussion

16:00 - 17:30 Room N

EuroSafe Imaging Session

EU 4a Why do we need to know radiation doses in imaging procedures?
Moderator:
G. N. Paulo; Coimbra/PT

EU 4a-1 16:00
Chairperson’s introduction
E. Varo; Madrid/ES (eliseov@med.ucm.es)

Session objectives:
1. To highlight the importance of the dosimetric aspects for the optimisation of imaging procedures as required by the European directive.
2. To appreciate the role of automatic patient dose registries in imaging procedures.
3. To identify the benefits and limitations of the automatic patient dose registries in imaging procedures.

EU 4a-2 16:10
Relevance of patient dose evaluation in the MEDITM project
J. Damilakis; Iraklion/GR (John.Damilakis@med.uoc.gr)

Learning objectives:
1. To learn about the objectives of the MEDITM project and the expected impact on radiology practice.
2. To appreciate the potential of the automatic patient dose registries to improve epidemiological research.
3. To understand the role of the different dosimetric tools developed and used by MEDITM to improve the accuracy of patient dose evaluations.

EU 4a-3 16:25
Diagnostic reference levels in paediatrics
C. Granata; Genoa/IT

Learning objectives:
1. To learn the importance of patient dose reduction in paediatric imaging and the relevance of the European guidelines on diagnostic reference levels.
2. To appreciate the difficulties in collecting and analysing patient dose values in paediatric imaging, but the need to audit these doses.
3. To understand the importance of guidelines to improve the radiation protection in paediatric imaging and the evaluation of population dose in paediatrics.

EU 4a-4 16:40
Diagnostic reference levels (DRLs) and image quality: the need to use clinical indication
E. P. Efthathopoulos; Alimos/GR (statthise@med.uoa.gr)

Learning objectives:
1. To learn what diagnostic reference levels are and what they are not, and the limitations of DRLs.
2. To appreciate the trade-off between radiation dose and image quality.
3. To understand the need for the establishment of clinical indication-based DRLs.

EU 4a-5 16:55
Optimisation and radiation dose in medical imaging
R. M. Sanchez; Madrid/ES (robertomariano.sanchez@salud.madrid.org)

Learning objectives:
1. To learn that the new European directive requires estimating, registering, and analysing patient dose values for medical imaging.
2. To appreciate the role of automatic patient dose registries in optimisation, and the impact of new technology in reducing patient doses in medical imaging.
3. To understand the differences between the different dosimetric quantities to optimise the imaging procedures and to estimate population doses.

17:10
Panel discussion: What basic dosimetric information in medical imaging has to be known by the referrers, by the radiologists, and by the patients?
16:00 - 17:30 Room O

Chest

RC 404
Thoracic emergencies: part 2
Moderator: G. Mostbeck; Vienna/AT

RC 404-1 16:00
A. Emergencies in thoracic oncology
C. Beigelman-Aubry; Lausanne/CH

Learning objectives:
1. To learn about various causes of dyspnea in thoracic oncology.
2. To learn about cardiac complications of thoracic malignancies.
3. To learn how to suggest an appropriate differential diagnosis.

RC 404-2 16:22
B. Haemoptysis
A. Khalil; Paris/FR
(antoine.khalil@aphp.fr)

Learning objectives:
1. To understand the role of multidetector CT angiography.
2. To learn about the planning of endovascular interventions.

RC 404-3 16:45
C. Non-ischaemic cardiac emergencies
C. Loewe; Vienna/AT (christian.loewe@meduniwien.ac.at)

Learning objectives:
1. To learn how to evaluate acute pericarditis.
2. To learn how to explore patients with suspected myocarditis.
3. To learn about takotsubo features on MRIs.

RC 404-4 17:07
D. Postoperative and iatrogenic complications
J. D. Dodd; Dublin/IE (jonniedodd@gmail.com)

Learning objectives:
1. To learn about signs of bronchopleural fistula and lobar torsion.
2. To review the signs of chemotherapy-induced pulmonary toxicity.
3. To learn about thoracic complications of interventional radiology.

16:00 - 17:30 Coffee & Talk 2

EU 4b
Building capacity and quality/safety awareness in Africa
Moderators:
M. Abdel-Wahab; Vienna/AT
S. Abdurrazak; Vienna/AT
G. Frija; Paris/FR

C 11-1/C 11-2/C 11-3 16:00
Introduction
B. Brkljačić; Zagreb/HR
G. Frija; Paris/FR (guyl.frija@aphp.fr)
S. Abdurrazak; Vienna/AT

C 11-4 16:20
Strengthening radiology in Africa: the IAEA multifactorial approach
D. Paez; Vienna/AT (d.paez@iaea.org)

Learning objectives:
1. To provide an overview of IAEA’s capacity building activities in Africa.
2. To learn how African countries can concretely benefit from IAEA support.
3. To explore synergies between IAEA, ESR, and Africa.

C 11-5 16:30
IAEA policy in Africa
P. Johnston; Vienna/AT

Learning objectives:
1. To provide an overview of IAEA’s efforts to promote radiation protection in patients in Africa.
2. To understand the challenges and opportunities to improve patient safety in Africa through the demonstration of successful examples.
3. To provide a roadmap for improving radiation protection of patient activities in Africa.

C 11-6 16:40
African Society of Radiology (ASR) expectations
T. El-Diasty; Mansoura/EG (teldiasty@hotmail.com)

Learning objectives:
1. To understand the role of the African Society of Radiology in promoting quality and safety in radiology practice in Africa.
2. To understand the needs of different African countries.
3. To discuss methods of promoting the exchange of knowledge between African countries via ESR and IAEA.

16:00 - 17:30 Room E

Pros & Cons Session

PS 427
Breast cancer: to screen or not to screen?

PS 427-1 16:00
Chairperson’s introduction
F. J. Gilbert; Cambridge/UK (fg28@cam.ac.uk)

Session objectives:
1. To understand how the effectiveness of breast screening is assessed.
2. To learn about the key controversies for and against screening.
3. To decide whether or not the benefits outweigh the harms of breast screening.

PS 427-2 16:05
A. The evidence for breast screening
M. Broeders; Nijmegen/NL (mireille.broeders@radboudumc.nl)

Learning objectives:
1. To understand the evidence from population trials.
2. To learn about the effectiveness and potential benefits of breast screening.
3. To become familiar with the rational for screening and types of cancers detected.
Postgraduate Educational Programme

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Location</th>
<th>Details</th>
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<tbody>
<tr>
<td>B. The evidence against breast screening</td>
<td>16:30</td>
<td>Room F1</td>
<td>Learning objectives: 1. To understand overdiagnosis and overtreatment in relation to screening. 2. To learn about the potential harms of screening. 3. To become familiar with the costs associated with screening.</td>
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<td>16:55</td>
<td>Discussion</td>
<td>Room F1</td>
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E³ - Advanced Course: Interactive Teaching Session for Young (and not so Young) Radiologists

**E³ 421**
Imaging of the liver

E³ 421-1 16:00
A. CT and MRI liver imaging reporting and data system (LIRADS): how to use it and what to expect
A. Darnell; Barcelona/ES (andarrel@clinic.cat)
Learning objectives: 1. To become familiar with LIRADS categories, definitions, and algorithms. 2. To discuss the confusing features of LIRADS with examples. 3. To understand what the probability of hepatocellular carcinoma is for each LIRADS category.

E³ 421-2 16:45
B. Focal lesions in non-cirrhotic liver: how to diagnose, differentiate and manage
G. Brancatelli; Palermo/IT (gbranca@yahoo.com)
Learning objectives: 1. To learn how to differentiate focal liver lesions in non-cirrhotic patients with CT and MRI. 2. To know how to manage non-cirrhotic patients with focal liver lesions.

**Musculoskeletal**

**RC 410**
Imaging of chronic foot pain
Moderator: M. S. Posadzy; Poznan/PL

RC 410-1 16:00
A. Articular disorders
M. Shahabpour; Brussels/BE (maryam.shahabpour@uzbrussel.be)
Learning objectives: 1. To explain the disease spectrum and pathophysiology of articular sources of chronic foot pain. 2. To describe the imaging findings of articular disorders that present with chronic foot pain.

RC 410-2 16:30
B. Extra-articular source of pain
G. Bierry; Strasbourg/FR (guillaume.bierry@chru-strasbourg.fr)
Learning objectives: 1. To explain the disease spectrum and pathophysiology of extra-articular sources of chronic foot pain. 2. To describe the imaging findings of extra-articular conditions that are present in chronic foot pain.

**Physics in Medical Imaging**

**RC 413**
Blue skies and current trends in digital radiography (DR), computed tomography (CT) and interventional radiology (IR)

RC 413-1 16:00
Chairperson's introduction: Overview of multi-front development in x-ray
J. Sjöberg; Stockholm/SE (johan.a.sjoberg@si.se)
Session objectives: 1. To learn about existing technologies. 2. To learn about state of the art in x-ray imaging modalities. 3. To predict future developments.
**Learning objectives:**
1. To learn about existing DR technologies.
2. To learn about state of the art in DR imaging.
3. To predict future developments in DR imaging.

**RC 413-3 16:28**
B. Updates and future perspectives to CT technology
M. Kachelrieß; Heidelberg/DE (marc.kachelriess@dkfz.de)

**Learning objectives:**
1. To learn about existing CT technologies.
2. To learn about state of the art in CT imaging.
3. To predict future developments in CT imaging.

**RC 413-4 16:51**
C. Updates and future perspectives to IR and angiography technology
N. Marshall; Leuven/BE (nicholas.marshall@uzleuven.be)

**Learning objectives:**
1. To learn about existing IR technologies.
2. To learn about state of the art in IR.
3. To predict future developments in IR.

16:14
Panel discussion: What can we expect from new detectors, equipment designs and post-processing/reconstruction?

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**EFRS Workshop**

**EFRS WS 4**

**Public and patient involvement (PPI)**

Moderators:
C. A. Beardmore; London/UK
E. Briers; Brussels/BE

**EFRS WS 4-1 16:00**
The patient's perspective: considering our voice
E. Briers; Brussels/BE (erikbriers@telenet.be)

**Learning objectives:**
1. To learn how to improve engagement with the public and patients in relation to delivering quality medical imaging, interventional radiology, and radiotherapy services.
2. To discuss what matters to patients within medical imaging, interventional radiology, and radiotherapy services.
3. To learn how to capture effective patient feedback for continuous service improvement.

**EFRS WS 4-2 16:18**
Patient, public and practitioner partnerships at a national level: a UK case study
R. Harris; London/UK (rachell@sor.org)

**Learning objectives:**
1. To learn about the development of a guiding principles strategy for partnership working.
2. To describe the key priorities within the strategy.
3. To consider the steps in supporting implementation of the principles at a national level.

**EFRS WS 4-3 16:33**
Public and patient involvement in education and training
H. Precht; Middelfart/DK (hepr@ucldk.dk)

**Learning objectives:**
1. To learn about the importance of patient engagement in education and training.
2. To consider how the public and patients can contribute to radiographers’ education.
3. To understand how patient feedback helps support professional and service development.

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**ECR 2020**

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**Panel discussion: What can we expect from new detectors, equipment designs and post-processing/reconstruction?**

**EFRS WS 4-4 16:48**

**Public and patient involvement in research**
A. Negrouk; Brussels/BE

**Learning objectives:**
1. To understand how the public and patients can help research trial and protocol development.
2. To learn how patients and researchers can work together in managing research projects.
3. To understand how patients can help disseminate research results at the end of a study.

**EFRS WS 4-5 17:03**
The role of the EFRS in supporting public and patient engagement
J. McNulty; Dublin/IE (jonathan.mcnulty@ucd.ie)

**Learning objectives:**
1. To consider the opportunities for patient, public, and practitioner engagement at the European level.
2. To showcase ongoing activity that will help support improved patient and public partnerships.
3. To learn about future EFRS plans for partnership working.

17:18
Panel discussion: Public and patient involvement: are we doing enough?

**16:00 - 17:30**
Descartes (Room D3)

**Radiographers**

**RC 414**

**Practical magnetic resonance imaging tips for radiographers**

**RC 414-1/RC 414-2 16:00**

**Chairpersons’ introduction**
A. I. Holodny; New York, NY/US
V. G. Syrgiamiotis; Goudi/GR (syrgiamiotisvasilis@gmail.com)

**Session objectives:**
1. To understand practical tips to optimise MRI examinations at 3 Tesla.
2. To be aware of practical tips applicable to paediatric examinations.
3. To discuss the latest issues in MRI safety and how these can be better managed.

**RC 414-3 16:06**
A. Practical tips to optimise your examinations at 3 Tesla
J. Podobnik; Ljubljana/SI (janez.podobnik@kclj.si)

**Learning objectives:**
1. To review MRI at 3 Tesla, the benefits it provides, and the associated challenges.
2. To recognise artefacts related to 3 Tesla MRI and to be aware of how these can be reduced.
3. To be familiar with tips for examination optimisation at 3 Tesla.

**RC 414-4 16:29**
B. Practical tips in paediatric MRI
U. Weinberger; Vienna/AT (ulrike.weinberger@fh-campuswien.ac.at)

**Learning objectives:**
1. To be aware of special patient care considerations for paediatric patients in MRI.
2. To be familiar with MRI examinations which are routinely, and often exclusively, performed on paediatric patients.
3. To understand methods for paediatric image optimisation in routine practice.

**RC 414-5 16:52**
C. What is new in MRI safety?
V. M. F. Silva; Porto/PT (vitorsoft@gmail.com)

**Learning objectives:**
1. To be familiar with key MRI safety issues.
2. To understand how recent and future developments are introducing new safety issues.
3. To be aware of how new safety issues should be managed, and to understand the importance of continuous professional development in MRI safety.
17:15 Panel discussion: How can we ensure MRI radiographers keep up to date with evolving safety requirements?

16:00 - 17:30 Room G

**Genitourinary**

**RC 407**

**Acute and chronic pelvic pain**

**RC 407-1** 16:00
Chairperson’s introduction
O. Nikolic; Novi Sad/RS (nikolic.olivera@gmail.com)

**Session objectives:**
1. To learn about the cause of acute and chronic pelvic pain.
2. To understand what the radiologist needs to know about imaging findings in pelvic pain.

**RC 407-2** 16:05
A. Acute pelvic pain
M. Basta Nikolic; Novi Sad/RS (drmarijanabastanikolic@gmail.com)

**Learning objectives:**
1. To discuss gynaecological disorders causing acute pelvic pain and differential diagnosis.
2. To present a radiological approach in management of acute pelvic pain.

**RC 407-3** 16:24
B. Chronic non-endometriotic pelvic pain
M. M. Otero-Garcia; Vigo/ES (Maria.Milagros.Otero.Garcia@sergas.es)

**Learning objectives:**
1. To know the different causes of chronic pelvic pain.
2. To understand what the radiologist can offer to the clinical referee in patients with chronic pelvic pain.

**RC 407-4** 16:43
C. Endometriosis
R. A. Kubik-Huch; Baden/CH (rahel.kubik@ksb.ch)

**Learning objectives:**
1. To learn about the clinical features of endometriosis with an emphasis on chronic pelvic pain.
2. To become familiar with the increasing role of MRI for the workup and management of endometriosis.
3. To learn how to optimise MRI of the female pelvis in patients with suspected endometriosis.
4. To illustrate the MRI features of ovarian and peritoneal endometriosis.

**RC 407-5** 17:02
D. Embolisation of pelvic congestion syndrome
R. Uberoi; Oxford/UK (rajan uberoi@ouh.nhs.uk)

**Learning objectives:**
1. To understand the pathophysiology underlying pelvic congestion syndrome.
2. To learn about the common presentations.
3. To learn about the treatment options, particularly venous embolisations.

17:21 Panel discussion: What radiologists have to know in female pelvic pain imaging

16:00 - 17:30 Room K

**Paediatric**

**RC 412**

**Intensive care paediatric radiology: the very sick neonate**

**RC 412-1** 16:00
Chairperson’s introduction
S. Stafrace; Doha/QA (samstafrace01@gmail.com)

**Session objectives:**
1. To learn about the most common neurological emergencies in intensive care neonates.
2. To understand the wide variety of thoracic devices that may be used in these patients.
3. To discuss the role of US in abdominal emergencies in the critically ill child.

**RC 412-2** 16:05
A. Neuroimaging in the neonatal intensive care unit
M. Argyropoulou; Ioannina/GR (margyrop@cc.uoi.gr)

**Learning objectives:**
1. To learn the most common neurological emergencies in the intensive care patient.
2. To understand the preferential use of US and MRI as imaging techniques.
3. To discuss the key findings that may be useful for differential diagnosis.

**RC 412-3** 16:30
B. Chest imaging in the ICU: tubes and catheters
M. L. Lobo; Lisbon/PT (mluisalobo@gmail.com)

**Learning objectives:**
1. To learn the crucial role of simple views in critically ill children.
2. To understand the variety of devices used in the intensive care unit.
3. To discuss how to avoid the most common pitfalls.

**RC 412-4** 16:55
C. Emergencies in the critically ill neonate: abdominal US applications and beyond
M. Riccabona; Graz/AT

**Learning objectives:**
1. To learn about typical body (abdomen, chest and other) emergencies that can be addressed by US in the neonatal intensive care unit (NICU).
2. To understand some typical findings that may help in disease characterisation.
3. To appreciate the considerable impact on prognosis and survival of the critically ill neonate.

17:20 Panel discussion: Is there a role for FAST scan in the paediatric ICU?

16:00 - 17:30 Room M 1

**Molecular Imaging**

**RC 406**

**Merging the best: hybrid imaging**

Moderator:
G. Antoch; Düsseldorf/DE

**RC 406-1** 16:00
A. Hybrid imaging with SPECT/CT
A. Scarsbrook; York/UK (a.scarbrook@nhs.net)

**Learning objectives:**
1. To learn the basic principles of hybrid SPECT/CT imaging.
2. To understand what complementary information can be provided by SPECT/CT.
3. To learn the clinical applications of SPECT/CT.
E3 408 - Advanced Course: Imaging of Eye and Orbital Pathologies

E3 418 - Non-neurological complications in intensive care patients

**E3 418-1**
**A. The white chest and severe dyspnoea**
M. Herman; Olomouc/CZ
(a_ailianou@yahoo.com)

**Learning objectives:**
1. To understand the physiopathology of the severe respiratory complications in emergency and ICU scenarios.
2. To know when a computed tomography can be decisive.
3. To learn the differential diagnosis patterns for the imaging findings in chest x-ray and CT.

**E3 418-2**
**B. Acute abdominal complications**
M. Scaglione; Middlesborough/UK
(mscaglione@tiscali.it)

**Learning objectives:**
1. To become familiar with the most common requests: infection, bleeding, ischemia, leakage, and obstruction in ICU patients.
2. To learn about the different imaging protocols (when to use intravenous and enteral contrast agent).
3. To learn the main imaging findings.

**E3 418-3**
**C. Image-guided interventions in ICU patients**
L. Appelbaum; Jerusalem/IL
(liata@hadassah.org.il)

**Learning objectives:**
1. To learn about the role of emergency CT/US-guided intervention.
2. To learn how to handle the different problems in the ICU.
3. To learn the management of patients after failed interventional procedures.

**E3 418-4**
**D. The management of patients with invasive medical devices**
J. Murphy; Melbourne/AUS
(jim.murphy@laclуч.com)

**Learning objectives:**
1. To become familiar with the most common complications associated with different invasive medical devices.
2. To learn the strategies to manage these complications.
3. To learn the management of patients after failed interventional procedures.

**E3 418-5**
**E. The management of patients with mechanical ventilation**
A. Fernandez; Barcelona/ES
(afernandez@hospitalbarcelona.es)

**Learning objectives:**
1. To become familiar with the most common complications associated with mechanical ventilation.
2. To learn the strategies to manage these complications.
3. To learn the management of patients after failed interventional procedures.

**E3 418-6**
**F. The management of patients with extracorporeal membrane oxygenation (ECMO)**
S. Rodriguez; Madrid/ES
(s.rodriguez@hospitalmadrid.es)

**Learning objectives:**
1. To become familiar with the most common complications associated with ECMO.
2. To learn the strategies to manage these complications.
3. To learn the management of patients after failed interventional procedures.

**E3 418-7**
**G. The management of patients with peritoneal dialysis**
M. Gonzalez; Mexico/MEX
(m.gonzalez@hospitalmexico.es)

**Learning objectives:**
1. To become familiar with the most common complications associated with peritoneal dialysis.
2. To learn the strategies to manage these complications.
3. To learn the management of patients after failed interventional procedures.

**E3 418-8**
**H. The management of patients with continuous veno-venous hemofiltration (CVVH)**
L. Perez; Buenos Aires/ARG
(l.perez@hospitalbuenosaires.es)

**Learning objectives:**
1. To become familiar with the most common complications associated with CVVH.
2. To learn the strategies to manage these complications.
3. To learn the management of patients after failed interventional procedures.
E² 420-4 17:02
C. Multicentre studies for more robust radiomics signatures
M. P. A. Starmans; Rotterdam/NL (m.starmans@erasmusmc.nl)

Learning objectives:
1. To introduce a framework for rapid development of radiomics signatures.
2. To explain how the parameters of a radiomics pipeline can be automatically optimised.
3. To show the performance of the framework for a number of applications.

16:00 - 17:30 Tech Gate Auditorium

Special Focus Session

SF 4
Interventional radiology in oncology

SF 4-1 16:00
Chairperson’s introduction
L. A. Solbiati; Rozzano/IT

Session objectives:
1. To become familiar with current percutaneous ablation and embolisation techniques.
2. To learn about the clinical indications of percutaneous ablation and embolisation.
3. To understand the advantages and limitations of each ablation and embolisation technique.

SF 4-2 16:05
Ablation techniques in the lung
C. A. Ridge; Dublin/IE (caroleridge@hotmail.com)

Learning objectives:
1. To become familiar with current percutaneous ablation techniques in the lung.
2. To learn about the clinical indications of percutaneous ablation in lung lesions.
3. To understand the advantages and limitations of each ablation technique.

SF 4-3 16:30
Ablation and embolisation techniques in the liver
P. L. L. Pereira; Heilbronn/DE (philippe.pereira@slk-kliniken.de)

Learning objectives:
1. To become familiar with current percutaneous ablation and embolisation techniques in the liver.
2. To learn about the clinical indications of percutaneous ablation and embolisation in liver tumours.
3. To understand the advantages and limitations of each ablation and embolisation technique.

SF 4-4 16:55
Ablation techniques in the bone
A. Gangi; Strasbourg/FR (Afshin.Gangi@chru-strasbourg.fr)

Learning objectives:
1. To become familiar with current percutaneous ablation techniques in the bone.
2. To learn about the clinical indications of percutaneous ablation in bone lesions.
3. To understand the advantages and limitations of each ablation technique.

17:20
Panel discussion: The role of interventional radiologist in the treatment of lung, liver and bone lesions
E³ - Rising Stars Programme: Basic Session

BS 5a
Abdominal viscera: abdominal emergencies
Moderator:
A. Palkó; Szeged/HU

BS 5a-1 08:30
Perforation of the GI tract
V. Maniatis; Aabenraa/DK (vmaniatis67@gmail.com)
Learning objectives:
1. To review the aetiologies of perforation.
2. To present current imaging techniques for evaluation of perforation.
3. To describe the typical features of perforation.

BS 5a-2 09:00
Bowel obstruction
A. Filippone; Pescara/IT (filipponea378@gmail.com)
Learning objectives:
1. To review the most common causes of bowel obstruction.
2. To present current imaging techniques for evaluation of bowel obstruction.
3. To become familiar with the typical findings of bowel obstruction.

BS 5a-3 09:30
Vascular emergencies
V. E. Sinitsyn; Moscow/RU (vsni@mail.ru)
Learning objectives:
1. To review the most common causes.
2. To present current imaging techniques.
3. To be familiar with the role of interventional radiology.

Chest

RC 504
Lung nodule management in 2020

RC 504-1 08:30
Chairperson’s introduction
R.-I. Milos; Vienna/AT (ruxandra-iulia.milos@meduniwien.ac.at)
Session objectives:
1. To avoid common errors in nodule categorisation or measurement.
2. To summarise the recent knowledge about nodule management.
3. To understand the place of risk prediction models.

RC 504-2 08:35
A. Radiological assessment
T. Frauenfelder; Zurich/CH (thomas.frauenfelder@usz.ch)
Learning objectives:
1. To learn how to recognise false nodules.
2. To learn how to classify lung nodules as solid, part solid, or non-solid.
3. To be aware of the typical and atypical characteristics of perifissural opacities.

RC 504-3 08:58
B. Computer-aided diagnosis (CAD) and artificial intelligence (AI) perspective
A. R. Larici; Rome/IT (annarita.larici@unicatt.it)
Learning objectives:
1. To review the capabilities and limitations of CAD for the detection of lung nodules.
2. To learn about the performance of AI in the detection and characterisation of lung nodules.
3. To understand the basic concepts of machine learning as applied to imaging.
4. To summarise currently available machine learning techniques in radiology.

PC 5
Audit and value in clinical radiology: enhancing quality

PC 5-1 08:30
Chairperson’s introduction
A. Brady; Cork/IE (adrianbrady@me.com)
Session objectives:
1. To provide an ESR perspective on clinical audit.
2. To discuss the benefits of multidisciplinary working.
3. To consider existing programmes for national audit.

PC 5-2 08:35
Developing and implementing a national audit programme
J. Suutari; Helsinki/FI
Learning objectives:
1. To consider potential obstacles to national audit programme development.
2. To discuss the establishment of a national audit model.
3. To emphasise the benefits associated with a large scale, national audit.

PC 5-3 08:55
Audit and quality improvement: the UK perspective
D. Howlett; Eastbourne/UK (david.howlett@nhs.net)
Learning objectives:
1. To review the existing UK radiology audit/quality improvement (QI) programme.
2. To demonstrate the UK experience in clinical audit.
3. To consider the challenges and benefits of multiagency collaboration in radiology audit.

PC 5-4 09:15
Clinical audit: the radiographer’s perspective
G. N. Paulo; Coimbra/PT (graciano@estescoimbra.pt)
Learning objectives:
1. To discuss “value” in radiology.
2. To consider the importance of adding value in radiological practice.
3. To evaluate wider concepts of value and their relationship to QI.

PC 5-5 09:35
Adding value in radiology
J. P. Borgstede; Colorado Springs, CO/US (borgrad@msn.com)
Learning objectives:
1. To discuss “value” in radiology.
2. To consider the importance of adding value in radiological practice.
3. To evaluate wider concepts of value and their relationship to QI.

09:55
Panel discussion: Auditing: cumbersome formality or beneficial value-adding activity?
Postgraduate Educational Programme

09:00 - 10:00

Coffee & Talk (open forum) Session
Organised by ESOR

C 3
Imaging research: making the most of our opportunities

C 3-1 09:00
Chairperson’s introduction
V. Goh; London/UK (vicky.goh@kcl.ac.uk)

Session objectives:
1. To understand that research is central to evidence-based medicine.
2. To appreciate the different types of research in radiology and how radiologists have approached this in their practice.
3. To learn how to maximise opportunities and understand how artificial intelligence is shaping future research.

C 3-2 09:05
Why is imaging research important?
G. Cook; London/UK (gary.cook@kcl.ac.uk)

Learning objectives:
1. To understand that research is central to evidence-based medicine.
2. To appreciate the basic principles of imaging research.
3. To learn the different types of research in radiology.

C 3-3 09:15
Why should you undertake a PhD?
D. Caruso; Rome, LT/IT (dcaruso85@gmail.com)

Learning objectives:
1. To understand the reason behind the decline of interest in an academic career.
2. To learn about the qualities of a successful PhD.
3. To appreciate the skills that a PhD program will provide you.

C 3-4 09:25
Being an academic radiologist: what does this really mean in practice?
S. Gourtsoyianni; Athens/GR (sgty76@gmail.com)

C 3-5 09:35
Research in the artificial intelligence era: how can we compete?
K. G. Foley; Lantrisant/UK

Learning objectives:
1. To learn about the central role that radiologists have in artificial intelligence research.
2. To understand the importance of collaboration in imaging research.

C 3-6 09:45
Making the most of interdisciplinary research: artificial intelligence and beyond
V. Goh; London/UK (vicky.goh@kcl.ac.uk)

Learning objectives:
1. To appreciate how interdisciplinary research is important to advancing knowledge.
2. To be aware of the opportunities available to radiologists.
3. To understand how this could work in the artificial intelligence era and beyond.

09:55
Open forum discussion

08:30 - 10:00

E³ - ECR Master Class (Paediatric)

E³ 526a
Whole-body MRI in children

E³ 526a-1 08:30
Chairperson’s introduction
G. Roic; Zagreb/HR (goran.roic@kdb.hr)

Session objectives:
1. To discuss the technical challenges in whole-body MRI (WBMRI) in children.
2. To get an overview of the applications of WBMRI in children in oncological and inflammatory conditions.
3. To discuss the future of WBMRI and whole-body hybrid imaging in children.

E³ 526a-2 08:35
A. Technical considerations: the basics
L. Tanturri de Horatio; Rome/IT (laura.tanturri@opbg.net)

Learning objectives:
1. To learn about the software and hardware for WBMRI.
2. To understand the choice of protocol in WBMRI in children.
3. To discuss technical challenges in paediatric WBMRI.

E³ 526a-3 08:53
B. Whole-body MRI in oncological conditions
A. S. Littooij; Utrecht/NL (alittooij@hotmail.com)

Learning objectives:
1. To learn about WBMRI in staging and response evaluation in children with cancer.
2. To understand typical findings.
3. To discuss how WBMRI may replace other imaging modalities.

E³ 526a-4 09:11
C. Whole-body MRI in musculoskeletal inflammation
E. V. Brandis; Oslo/NO (elisabeth@vonbrandis.net)

Learning objectives:
1. To learn about the indications for WBMRI in children with musculoskeletal inflammation.
2. To understand typical findings and differential diagnosis including normal variants that may mimic disease.
3. To discuss current clinical practice for WBMRI in non-bacterial osteomyelitis.

E³ 526a-5 09:29
D. The future role of MR-PET
S. Gatidis; Tübingen/DE (sergios.gatidis@med.uni-tuebingen.de)

Learning objectives:
1. To learn about the current clinical and scientific state of the art.
2. To learn about the limitations and pitfalls of MR-PET.
3. To discuss future developments.

09:47
Panel discussion: Whole-body MRI in children: what to expect in the future?
Joint Session of the ESR and EFLM

ESR/EFLM
Integrated diagnostics: are we ready for it?

ESR/EFLM-1 08:30
Chairpersons’ introduction (part 1)
A.-M. Simundic; Zagreb/HR (am.simundic@gmail.com)

Session objectives:
1. To present EFLM and its aims.
2. To appreciate the major challenges in laboratory medicine.
3. To explain the rationale behind featured topics.

ESR/EFLM-2 08:35
Chairpersons’ introduction (part 2)
B. Brkljacic; Zagreb/HR (boris@brkljacic.com)

Session objectives:
1. To identify the potential benefits of a partnership between EFLM and ESR.
2. To understand the major overlaps of laboratory medicine and radiology where integrated diagnostics could aid in patient management.
3. To identify major challenges in radiology as a diagnostic discipline.

ESR/EFLM-3/ESR/EFLM-4 08:40
Can we improve patient outcome by integrating radiology and laboratory medicine?
M. Neumaier; Mannheim/DE (michael.neumaier@medma.uni-heidelberg.de)
S. O. Schönberg; Mannheim/DE

Learning objectives:
1. To become familiar with the term “integrated diagnostics”.
2. To learn why the current diagnostic approach needs improvement.
3. To understand how integrated diagnostics can improve patient outcome.

ESR/EFLM-5 09:00
How to improve cancer detection through integrated diagnostics?
V. Haselmann; Mannheim/DE

Learning objectives:
1. To learn the biomarkers available for improved cancer diagnostics in the medical laboratory.
2. To appreciate the impact of detection of nucleic acids in body fluids for clinical decision-making and therapy stratification.
3. To understand the synergistic effects of integrated diagnostics for improved follow-up of systemic disease and the potentials for early detection of cancer in primary diagnosis.

ESR/EFLM-6 09:15
Diagnosing heart failure: is there a better way?
P. Collinson; London/UK (paul.collinson@stgeorges.nhs.uk)

Learning objectives:
1. To understand the current limitations of biomarkers used to diagnose heart failure.
2. To appreciate the impact of heart failure biomarker measurement for clinical decision-making and therapy stratification.
3. To identify opportunities for combining radiological and laboratory investigations for more efficient management of patients with heart failure.

ESR/EFLM-7 09:30
Integrating blood biomarkers and radiology to achieve optimal detection and management of pulmonary embolism
G. Lippi; Verona/IT (giuseppe.lippi@univr.it)

Learning objectives:
1. To learn the diagnostic performance, clinical significance, and biological and analytical drawbacks of laboratory tests currently used for diagnosing and managing pulmonary embolism.
2. To appreciate the role of thrombus-targeted fibrinolysis as a promising theranostic approach in diagnosing and managing pulmonary embolism.
3. To understand the potentialities of combining radiological and laboratory investigations for more efficient management of patients with pulmonary embolism.
08:30 - 09:30  Room E

Coffee & Talk (open forum) Session
Jointly organised by WHO and EuroSafe Imaging

C 12
Using CT in asymptomatic people: are we doing more harm than good?

C 12-1 08:30
Chairperson's introduction
M. D. R. D. R. Perez; Geneva/CH (perezm@who.int)

Session objectives:
1. To review the status and trends in the use of CT in asymptomatic people for individual health assessment (IHA).
2. To discuss the potential benefits and harms of CT-IHA practice in different scenarios, and the associated challenges in terms of quality and safety of health care.
3. To propose a framework for enhancing justification, regulatory compliance, and clinical governance of CT-IHA practices.

C 12-2 08:40
Setting the scene
G. Frija; Paris/FR (guy.frija@aphp.fr)

Learning objectives:
1. To define individual health assessment.
2. To see where imaging and, especially, CT are implied.
3. To see how to improve current existing guidelines.

C 12-3 08:50
Individual health assessment (IHA) in the regulations
J. Griebel; Neuherberg/DE

Learning objectives:
1. To describe the specific requirements for exposure of asymptomatic individuals in the Euratom Basic Safety Standards Directive.
2. To describe the specific requirements for exposure of asymptomatic individuals in the International Basic Safety Standards.
3. To discuss the implications and challenges of these standards regarding justification, optimisation, and referral guidelines.

C 12-4 09:00
The Korean experience regarding IHA
M.-J. Kim; Anyang-si/KR

Learning objectives:
1. To outline cultural and societal approaches in Korea to IHA as part of health care provision.
2. To describe briefly the findings relating to thyroid screening conducted outside a national screening programme.
3. To discuss the potential evaluation of IHA provided by NECA or similar organisations, including the value added and the challenges faced.

C 12-5 09:10
Open forum discussion
M. del Rosario Perez; Geneva/CH

08:30 - 10:00  Room F1

E³ - Advanced Course: Interactive Teaching Session for Young (and not so Young) Radiologists

E³ 521
Small bowel imaging

E³ 521-1 08:30
A. CT and MR enterography: my technical tips for preparation and scanning
A. J. J. Madureira; Porto/PT

Learning objectives:
1. To understand the importance of proper preparation for enterography.
2. To be familiar with technical details that ensures high imaging quality.

E³ 521-2 09:15
B. Detection of small bowel involvement in patients with peritoneal carcinomatosis before hyperthermic intraperitoneal chemotherapy (HIPEC)?
M. R. Torkzad; Stockholm/SE (michaeltorkzad@gmail.com)

Learning objectives:
1. To understand how to optimise imaging techniques to detect peritoneal involvement of the small bowel.
2. To be familiar the various imaging characteristics of peritoneal involvement of the small bowel.
SF 5-1 08:30
Chairperson’s introduction
I. Blazic; Belgrade/RS (ivanablazic@yahoo.com)

Session objectives:
1. To understand the role of magnetic resonance imaging in rectal cancer patient management.
2. To learn how MRI findings influence the initial therapeutic approach in rectal cancer patients.
3. To discuss the report on post neoadjuvant treatment MRI findings and its impact on further therapeutic approach in patients with rectal cancer.

SF 5-2 08:36
Keynote lecture: The disappearing rectal cancer: the radio-surgical challenge of our time
R. J. Heald; Southampton/UK (bill.heald@me.com)

Learning objectives:
1. Up to a third of rectal cancers undergoing chemoradiotherapy may achieve complete regression so that post-treatment MRI may save them from surgery.
2. The radiologist must increasingly understand the regression process and timing of the replacement of cancer by scar tissue.
3. Tumour regression grading (TRG) and its relationship to endoscopic and histological criteria must be understood. A new sign, the split scar (SSS), may be a predictor of the permanence of the regression.

SF 5-3 08:56
Rectal cancer revisited: Dutch perspective
R. G. H. Beets-Tan; Amsterdam/NL (r.beetstan@nki.nl)

Learning objectives:
1. To explain rectal cancer patient management in the Netherlands and the role of the radiologist in the multidisciplinary team.
2. To understand the importance of rectal cancer MRI and how MRI findings influence clinical decisions.
3. To discuss current pitfalls and challenges in rectal cancer imaging and ways to overcome them.

SF 5-4 09:14
Rectal cancer revisited: UK perspective
G. Brown; London/UK (gina.brown@rmh.nhs.uk)

Learning objectives:
1. To explain rectal cancer patient management in the UK and the role of the radiologist in the multidisciplinary team.
2. To understand the importance of rectal cancer MRI and how MRI findings influence clinical decisions.
3. To discuss current pitfalls and challenges in rectal cancer imaging and ways to overcome them.

SF 5-5 09:32
Rectal cancer: old challenges, new tools
L. C. O. K. Blomqvist; Stockholm/SE (lennart.k.blomqvist@gmail.com)

Learning objectives:
1. To offer an overview of advanced imaging techniques and new modalities applied in rectal cancer imaging.
2. To explain the advantages and drawbacks of different modalities.
3. To discuss future perspectives in imaging of rectal cancer.

09:50
Panel discussion: Role of the radiologist in diagnosis and management of rectal cancer

C 21-1 08:30
Chairperson’s introduction
Ü. Aydingöz; Ankara/TR (ustunaydingoz@yahoo.com)

Session objectives:
1. To list books, journal articles, and internet sources for learning and applying statistics.
2. To describe how books and online articles can be used for statistical analysis in radiology research.
3. To explain the current controversy regarding the use of the p-value in statistics.

C 21-2 08:35
Books and journal articles for learning and applying statistics in radiology research
G. Di Leo; San Donato Milanese/IT (gianni.dileo77@gmail.com)

Learning objectives:
1. To list books and journal articles for learning and applying statistics.
2. To describe how books and online articles can be used for statistical analysis in radiology research.

C 21-3 08:45
Internet sources for learning and applying statistics in radiology research
V. Wieske; Berlin/DE

Learning objectives:
1. To list internet sources for learning and applying statistics.
2. To describe how internet sources can be used for statistical analysis in radiology research.

C 21-4 08:55
The p-value controversy in statistics: what the radiologist needs to know
T. Akıncı D’Antonoli; Basel/CH (drtugba@hotmail.com)

Learning objectives:
1. To explain the uses and misuses of the p-value in statistical analyses.
2. To describe the ways to overcome the misuse of the p-value in statistical analyses.

09:05
Open forum discussion

8:30 - 10:00 Da Vinci (Room D1)
E3 - ECR Master Class (Cardiac)

E3 526b
Cardiac imaging in arrhythmia and sudden cardiac death

E3 526b-1 08:30
Chairperson’s introduction
P. Donato; Coimbra/PT (donato.pi@gmail.com)

Session objectives:
1. To learn about existing imaging biomarkers to prevent sudden cardiac death.
2. To understand how to face the challenge of arrhythmia in cardiac imaging.
3. To become familiar with the prerequisites for MRI in patients with active implants.
E1 526b-2 08:35
A. The role of cardiovascular magnetic resonance (CMR) in sudden cardiac death
D. Piotrowska-Kownacka; Warsaw/PL

Learning objectives:
1. To become familiar with the pathophysiology of sudden cardiac death.
2. To introduce CMR biomarkers to prevent sudden cardiac death.
3. To learn how to perform and how to interpret CMR to prevent sudden cardiac death.

E1 526b-3 09:00
B. Preventing sudden cardiac death with CT: pure theory or new diagnostic paradigm?
K. Grużyczynska; Katowice/PL (kgruzyczynska@poczta.onet.pl)
Learning objectives:
1. To learn what to look for in CT to prevent sudden cardiac death.
2. To get an overview about existing evidence of cardiac CT in this indication.
3. To discuss the possible future role of cardiac CT in preventing sudden cardiac death.

E1 526b-4 09:25
C. Imaging to drive electrophysiology procedures
G. Pontone; Milan/IT (gianluca.pontone@ccfm.it)

Learning objectives:
1. To learn about the importance of early identification of potentially lethal arrhythmias.
2. To become familiar with tips and tricks for successful CMR in patients with arrhythmia.
3. To understand the role of imaging for planning of electrophysiological procedures.

09:50
Panel discussion: Should we screen, who should we screen and how should we screen in order to prevent sudden cardiac death?

08:30 - 10:00  Darwin (Room D2)

ISRRT meets Japan

Meets 5
Radiography profession performance and future challenges in Japan

Presiding:
H. H. Hjemly; Sorumsand/NO
D. E. Newman; Fargo, ND/US

Meets 5-1/Meets 5-2 08:30
Chairpersons’ introduction
H. H. Hjemly; Sorumsand/NO (hakon@radiograf.no)
D. E. Newman; Fargo, ND/US (donnaenewman@gmail.com)

Session objectives:
1. To recognise the demographics and patient accessibility to health care services in the country.
2. To understand the infrastructure of imaging health services and their contribution to the primary and hospital health services to sustain the population and individual health.
3. To inform on the role of the professional society in influencing the future educational programme of radiographers in the country.
4. To inform on how the professional society supports and promotes the radiographers’ role in the community and the health care system.
5. To receive information on radiography career structure and opportunities for professional development of radiographers in Japan.
6. To appreciate the radiographers’ post-graduation professional requirements and relevant opportunities, and to keep up to date with evidence-based practice in imaging services.
7. To inform on what society believes about artificial intelligence, and what preparatory action have been undertaken (if any) to get radiographers ready to embrace the changes.

Meets 5-3 08:35
Education system and career structure of radiological technologists in Japan
N. Kodama; Niigata/JP (n_kodama@jart.or.jp)

Learning objectives:
1. To explain the education and license system of radiological technologists in Japan.
2. To understand current problems of radiological technologist education, especially clinical training.
3. To explain the career structure of radiological technologists in Japan.
4. To understand the expansion of the work of radiological technologist in the future.
5. To inform on task shifting (delegation of medical practice) to radiological technologist in Japan.
6. To inform on the relationship between radiological technologists and artificial intelligence (AI).

Meets 5-4 08:53
Latest optimal CT imaging technology and radiation dose reduction
T. Masuda; Hiroshima/JP (takanorimasuda@yahoo.co.jp)

Learning objectives:
1. To explain the outlines of a brief history of CT equipment.
2. To understand the current problems of radiation dose in Japan compared to other countries by using diagnostic reference levels (DRLs).
3. To understand the latest CT imaging technology and radiation dose reduction methods for maintaining image quality and diagnostic accuracy.
4. To inform about artificial intelligence for machine and deep learning.
5. To learn about how to use machine and deep learning in the clinical CT examination.

Meets 5-5 09:29
Radiation therapy in Japan: current status and recent topics of radiation therapy in Japan
H. Monzen; OsakaSayama/JP (hmon@med.kindai.ac.jp)

Learning objectives:
1. To recognise the scale of the cancer burden in Japan, and a brief history of radiotherapy.
2. To understand current problems and recent research topics for radiological technologists.
3. To inform on accreditation guidelines for radiotherapy technologists.
4. To receive information on radiotherapy technologists’ carrier structure and opportunities for professional development for radiotherapy technologists.
5. To appreciate the role of radiotherapy technologists and their professional requirements: knowledge of the special techniques and safety protocols for precision radiation therapy, including intensity-modulated radiation therapy, stereotactic radiation therapy, and image-guided radiation therapy.
6. To inform on research topics: new materials and methods for radiotherapy as part of an academic-industrial alliance.
7. To learn about how to use machine learning and knowledge-based radiation treatment plans in volumetric modulated arc therapy.

Meets 5-6 09:11
The role of radiological technologists in emergency medicine: a contribution of ultrasound
A. Kasuya; Kariya/JP (akihirokasuya224@gmail.com)

Learning objectives:
1. To learn about the current status of emergency imaging in Japan.
2. To appreciate the usefulness of ultrasound by radiological technologists in emergency imaging.
3. To share the ultrasound educational program by sonographers.

09:47 Panel discussion: How will you describe the future opportunities and challenges for radiographers in Japan? Do you think the emerging technology will change the profession, and in what way?
08:30 - 10:00  Descartes (Room D3)

Paediatric

**RC 512**
Optimising the management of children with cancer: how to improve?

**RC 512-1** 08:30  
**Chairperson's introduction**  
K. Rosendahl; Bergen/NO (karen.rosendahl@unn.no)

**Session objectives:**
1. To discuss the role of SPECT/CT and PET/MRI in diagnosis and follow-up of children with cancer.
2. To get an overview of indications for nuclear medicine in paediatric oncology.
3. To understand the clinical significance of hybrid imaging in children.

**RC 512-2** 08:36  
A. The role of SPECT and SPECT/CT  
B. Johnsen; Bergen/NO (boel.johnsen@helse-bergen.no)

**Learning objectives:**
1. To learn the differences of SPECT-CT and PET-CT in paediatric oncology.
2. To understand the molecular basis of the different radiotracers available.
3. To gain insight into future directions.

**RC 512-3** 08:59  
B. Can PET/MRI replace PET/CT?  
H. R. Nadel; Vancouver, BC/CA (hnadel@stanford.edu)

**Learning objectives:**
1. To become familiar with the differences between PET/MR and PET/CT in children.
2. To learn about optimising protocols for paediatric PET/MR.
3. To be able to identify specific indications for PET/MR in children with cancer.

**RC 512-4** 09:22  
C. Radiation doses and patient exposure issues  
H. Kertész; Vienna/AT (hunor.kertesz@meduniwien.ac.at)

**Learning objectives:**
1. To understand the source of the total effective dose for hybrid imaging techniques.
2. To appreciate recent advances of PET imaging technologies/methodologies that could lower the effective patient dose.
3. To understand the novel image reconstruction algorithms for PET image reconstruction that could lead to the same image quality with less injected activity.
4. To review clinically viable approaches to dose reduction in oncology PET/CT examinations.

09:45  
**Panel discussion:** The future direction of nuclear medicine imaging in paediatric oncology

08:30 - 10:00  Room G

Physics in Medical Imaging

**RC 513**
Demystifying MRI: things you always wanted to know

**Moderator:**  
P. Gilligan; Dublin/IE

**RC 513-1** 08:30  
A. Basic MRI: the building blocks of pulse sequences  
A. G. Webb; Leiden/NL (a.webb@lumc.nl)

**Learning objectives:**
1. To learn about how NMR signals are produced.
2. To understand the basic concepts of relaxation.
3. To learn about the operation of inversion recovery and spin echo pulse sequences.

**RC 513-2** 09:00  
B. MRI basic concepts: how to turn signals into images  
D. J. Lurie; Aberdeen/UK (d.lurie@abdn.ac.uk)

**Learning objectives:**
1. To learn how magnetic field gradients encode spatial information.
2. To understand the main ways in which field gradients are used.
3. To appreciate the basic concepts of data collection and image reconstruction in MRI.

**RC 513-3** 09:30  
C. Practical MRI: a toolkit of standard MR pulse sequences  
I. Seimenis; Athens/GR (iseimen@med.uoa.gr)

**Learning objectives:**
1. To learn about common types of MR pulse sequence.
2. To understand the difference between gradient echo and spin echo.
3. To appreciate the factors influencing choice of pulse sequence.

08:30 - 10:00  Room K

**E³ - European Diploma Prep Session**

**E³ 523**
Head and neck

**E³ 523-1** 08:30  
**Chairperson's introduction**  
M. G. Mack; Munich/DE (m.mack@radiologie-muenchen.de)

**Session objectives:**
1. To become familiar with the anatomy and imaging presentation of the most common disorders of the temporal bone and skull base.
2. To understand the imaging presentation of common inflammatory and neoplastic disorders of the nose, paranasal sinuses, and nasopharynx.
3. To describe the typical imaging features of the most common neoplastic disorders of the oral cavity, oropharynx, hypopharynx, and larynx.

**E³ 523-2** 08:36  
A. Temporal bone and skull base  
A. Trojanowska; Lublin/PL

**Learning objectives:**
1. To differentiate the anatomy, normal variants, and congenital disorders of the temporal bone.
2. To understand the causes and imaging features of hearing and vestibular disorders.
3. To describe the imaging presentation of the most common tumours of the skull base.
Learning objectives:
1. To understand the importance of advocacy at the EU level.
2. To understand the three levels of the European Legislation process.
3. To understand the influence of EU directives on national legislation and daily practice.

ESR/UEMS-6/ESR/UEMS-7 08:54
Creating a European radiology workforce: the value of qualifications across borders
C. Catalano, Rome/IT (carlo.catalano@uniroma1.it)
V. Papalois, London/UK

Learning objectives:
1. To understand the value of qualifications across borders and mobility of health care workers.
2. To understand the three levels of the European Legislation process.
3. To understand the influence of EU directives on national legislation and daily practice.

ESR/UEMS-8 09:10
Setting European standards for radiology: making your qualifications count at home and abroad
L. Oleaga Zufiria, Barcelona/ES (lauraoleaga@gmail.com)

Learning objectives:
1. To get an overview of the existing European Training Curriculum in radiology.
2. To know about the value of the European Diploma in Radiology (EDiR).
3. To learn about the European Training Assessment Programme (ETAP) 2.0.

ESR/UEMS-9 09:18
Setting European standards for interventional neuroradiology: the UEMS ETR in INR
M. Sąsiadek, Wroclaw/PL (marek.sasiadek@umed.wroc.pl)

Learning objectives:
1. To learn about a harmonised, comprehensive, structured, and balanced set of standards for interventional neuroradiology.
2. To understand the importance of a European training programme in interventional neuroradiology.
3. To defend the professional interests of interventional neuroradiologists in Europe.

ESR/UEMS-10 09:26
Setting European standards for ultrasound: which way to go?
P. Ricci, Rome/IT (paolo.ricci@uniroma1.it)

Learning objectives:
1. To understand the importance of a set of recommendations and guidelines for the training of non-radiologists in ultrasound.
2. To learn about the importance of improving the medical services of ultrasound, avoiding malpractice, and protecting patient safety.
3. To learn about the involvement of ESR and UEMS in the field of ultrasound.

Staying ahead of the curve with CME/CPD

ESR/UEMS-11 09:34
The importance of CME/CPD across Europe: the role of EACCME
V. Papalois, London/UK

Learning objectives:
1. To understand the difference between Continuing Medical Education (CME) and Continuing Professional Development (CPD).
2. To learn about the European Accreditation Council for Continuing Medical Education (EACCME).
3. To learn about the Accreditation Council in Imaging (ACI).

ESR/UEMS-12 09:42
Which kind of European CME/CPD do the radiologists want to gain?
M. A. Lucic, Srnska Kamenica/RS (milos.a.lucic@gmail.com)

Learning objectives:
1. To know about the existence of European CME credits (ECMEC).
2. To learn about the importance of credits in different European countries.
3. To predict future trends in CME/CPD within the field of radiology.

09:50
Panel discussion: The state of radiology in the EU
E³ - Advanced Course: Hot Topics in Emergency Radiology

E³ 518
The role of radiology in the management of mass casualty incidents

E³ 518-1 08:30
Chairperson's introduction
A. Blanco Barrio; Murcia/ES (anablancowhite@gmail.com)

Session objectives:
1. To understand the mass casualty patient pathway from scene to hospital.
2. To understand how a lack of advanced planning can make radiology a roadblock to forward patient flow and can increase mortality and morbidity.
3. To learn which imaging protocols to use to make rapid, brief, accurate diagnoses in multiple casualties.
4. To learn about communication, including communication failure, during a mass casualty incident.

E³ 518-2 08:36
A. Before the disaster: preparations and standards
F. Mück; Munich/DE (fabian.mueck@donau-isar-klinikum.de)

Learning objectives:
1. To understand how to establish the capabilities and limitations of the emergency radiology department.
2. To learn how to decide what protocols to use in case of a mass casualty incident.
3. To learn the importance of the disaster management plan and team practice.

E³ 518-3 09:04
B. CT findings of mass casualty incidents, terror attacks and assaults
E. A. Dick; London/UK (elizabethdick2010@gmail.com)

Learning objectives:
1. To learn about the typical injuries of knife or gunshot wounds.
2. To understand the physics of bomb blasts and the corresponding injuries.
3. To appreciate the role of radiology in disaster settings and to discuss scenarios of biological, chemical, or radiation attacks.

E³ 518-4 09:32
C. The role of interventional radiology in mass casualty incidents
A. Bloom; Jerusalem/IL (allian@hadassah.org.il)

Learning objectives:
1. To present the unique features of interventional radiology in mass casualty incident settings.
2. To provide examples of interventional radiology use in mass casualty incidents.
3. To present new tools used for the treatment of patients.

BS 5b - Rising Stars Programme: Basic Session

BS 5b
Career opportunities for radiographers
Moderator:
J. McNulty; Dublin/IE

BS 5b-1 08:30
The specialised paediatric radiographer
J. Gardling; Lund/SE (jenny.gardling@med.lu.se)

Learning objectives:
1. To become familiar with the key differences in paediatric patient care.
2. To appreciate the additional knowledge, skills, and attributes of a paediatric radiographer.
3. To understand the need for education, training, and continuous professional development for specialised paediatric radiographers.

E³ - Rising Stars Programme: Basic Session

BS 5b-2 08:55
Radiographers in ultrasound
G. Harrison; London/UK (gillihaha@gmail.com)

Learning objectives:
1. To understand the ultrasound education and training requirements.
2. To become familiar with the potential scope of practice for, and impact of, sonographers.
3. To identify the sonographers' role within medical imaging and the wider multidisciplinary team.

BS 5b-3 09:20
The radiation protection officer
E. Gruppetta; Msida/MT (egrupetta@yahoo.co.uk)

Learning objectives:
1. To understand the education and training needs of the radiation protection officer (RPO).
2. To become familiar with the important roles and responsibilities of the RPO across different modalities.
3. To highlight the responsibilities of an RPO within a wider medical imaging team.

09:45
Panel discussion: Things to consider when starting your career

E³ - Advanced Course: Hot Topics in Emergency Radiology

BS 5b-4 09:45
Panel discussion: Radiomics in brain tumour imaging
D. Zlatareva; Sofia/BG (dorazlat@yahoo.com)

Learning objectives:
1. To become familiar with the changes in the new WHO classification for brain neoplasms.
2. To understand the role of the radiologist in the diagnostic workup of glioma.
3. To understand perfusion imaging and its role in diagnosis and follow-up of glioma.

RC 511
Brain tumours: new things you should know

RC 511-1 08:30
Chairperson's introduction
D. Zlatareva; Sofia/BG (dorazlat@yahoo.com)

Session objectives:
1. To become familiar with the new World Health Organisation (WHO) classification for brain neoplasms.
2. To appreciate the role of the radiologist in the diagnostic workup of glioma.
3. To present the differential diagnosis and pitfalls in imaging low grade glioma.

RC 511-2 08:35
A. Low grade glioma
M. Smits; Rotterdam/NL (marion.smits@erasmusmc.nl)

Learning objectives:
1. To become familiar with the changes in the new WHO classification for low grade glioma.
2. To understand the role of functional imaging and perfusion imaging in the diagnostic workup of low grade glioma.
3. To present the differential diagnosis and pitfalls in imaging low grade glioma.

RC 511-3 08:58
B. High grade glioma
T. A. Yousry; London/UK (t.yousry@ucl.ac.uk)

Learning objectives:
1. To become familiar with the changes in the new WHO classification for high grade glioma.
2. To describe the different findings in true progression and pseudoprogression.
3. To learn about the role of radiomics in imaging high grade glioma.

RC 511-4 09:21
C. Posterior fossa tumours
S. L. Kumar; Singapore/SG

Learning objectives:
1. To become familiar with the changes in the new WHO classification for posterior fossa neoplasms.
2. To learn about the role of diffusion and perfusion imaging in posterior fossa tumours.
3. To list the various posterior fossa neoplasms in adults and children.

09:44
Panel discussion: Radiomics in brain tumour imaging
E³ - Advanced Course: Artificial Intelligence

08:30 - 10:00 Room M 5

E³ 520
Artificial intelligence and clinical decision support

E³ 520-1 08:30
Chairperson’s introduction
A. Alberich-Bayarri; Valencia/ES (angel@quibim.com)

Session objectives:
1. To become familiar with the different parts of the workflow where artificial intelligence may play a role.
2. To understand the challenges of using artificial intelligence for decision support.
3. To learn about the process required to get artificial intelligence empowered diagnoses to the clinic.

E³ 520-2 08:36
A. Clinical decision support workflow improved by artificial intelligence (AI)
E. R. Ranschaert; Turnhout/BE (erik.ranschaert@gmail.com)

Learning objectives:
1. To learn how decision support workflow can be supported and improved by AI.
2. To understand the different workflow parts in which AI can play a role.
3. To discuss how to evaluate the clinical value of AI in decision support.

E³ 520-3 09:04
B. Data mining and machine learning for integrated clinical decision support
G. Boland; Wellesley, MA/US (gboland@partners.org)

Learning objectives:
1. To understand how data mining can help in clinical decision support.
2. To learn about the needs and limitations of standardisation for AI assisted clinical decision support.
3. To learn about the state of the art in AI assisted clinical decision support.

E³ 520-4 09:32
C. AI to predict treatment response
N. deSouza; Surrey/UK

Learning objectives:
1. To understand the role of AI in moving towards precision medicine.
2. To understand the current potential of AI for monitoring response.
3. To understand how to manage AI in a clinical workflow as a decision support tool.

09:30 - 10:15 Coffee & Talk 3

Coffee & Talk (open forum) Session

C 22
How to organise research in radiology

C 22-1 09:30
Chairperson’s introduction
F. A. Gallagher; Cambridge/UK (tag1000@cam.ac.uk)

Session objectives:
1. To understand the challenges of being a successful researcher in radiology.
2. To become familiar with the skills required for imaging research.
3. To learn how to develop a research group.

C 22-2 09:35
A research group as a small business: managing and running research
G. P. Krestin; Rotterdam/NL

Learning objectives:
1. To understand how to manage a research group.
2. To understand how to acquire funding for research.
3. To learn how to write a successful grant.

C 22-3 09:43
Starting an academic career: balancing clinical work and research
R. A. Wolte; Cambridge/UK (ramona.wolte@meduniwien.ac.at)

Learning objectives:
1. To learn the challenges of being a clinician and a researcher.
2. To become familiar with the leadership skills required to be an excellent researcher.
3. To understand how to develop a career in academic radiology.

09:51
Open forum discussion: the challenges of clinical research and how to succeed

10:30 - 11:00 Forum (Room A)

Plenary Lecture

PL 1
Imaging at a different scale: the wide lives of our cells

Presiding:
B. Brkljačić; Zagreb/HR

PL 1-1 10:30
Imaging at a different scale: the wild lives of our cells
R. Weissleder; Boston, MA/US (rweissleder@mgh.harvard.edu)

12:45 - 13:45 Room B

E³ - The Beauty of Basic Knowledge: Breast

E³ 24 B
Basis of breast ultrasound and multimodality readings

Moderators:
P. Kapetas; Vienna/AT
K. Kinkel; Chêne-Bougeries/CH

E³ 24 B-1 12:45
Practical ultrasound of the breast: how I do it
A. Athanasiou; Athens/GR (athanasiou@mitera.gr)

Learning objectives:
1. To learn about patient positioning and image quality control.
2. To understand the value of colour Doppler ultrasound and elastography.
3. To learn about applying ultrasound breast imaging reporting and data systems (BIRADS).

E³ 24 B-2 13:15
Integrating ultrasound findings into the final mammography report
E. M. Fallenberg; Munich/DE

Learning objectives:
1. To understand how to assess concordance between mammography and ultrasound results.
2. To learn to give a final recommendation (no further action required, short-term follow-up, biopsy, other imaging modality, etc.).
**Postgraduate Educational Programme**

**Thursday**

**12:45 - 13:45 Room C**

**E³ - The Beauty of Basic Knowledge: Pancreas**

**E³ 25B**

**Chronic pancreatitis**

Moderator:
C. Matos; Lisbon/PT

**E³ 25B-1 12:45**

How to diagnose and classify
G. Zamboni; Verona/IT (gzamboni@hotmail.com)

**Learning objectives:**
1. To learn about the diagnosis of chronic pancreatitis.
2. To understand the classification of chronic pancreatitis.
3. To appreciate the role of imaging in the follow-up of chronic pancreatitis.

**E³ 25B-2 12:15**

Functional evaluation of chronic pancreatitis
M. A. Balli; Brussels/BE (mballi@ulb.ac.be)

**Learning objectives:**
1. To appreciate functional evaluation of chronic pancreatitis.
2. To learn about the role of imaging in recurrent pancreatitis.

**12:45 - 13:45 Room C**

**Coffee & Talk 1**

**Coffee & Talk (open forum) Session**
Organised by ESOR

**C 4**

**ESOR and its role in online education**

**C 4-1 12:45**

Chairperson's introduction
C. Loewe; Vienna/AT (christian.loewe@meduniwien.ac.at)

**C 4-2 12:50**

ESR Education on demand: how does it work, what is there for you
S. Barter; Bedford/UK

**Learning objectives:**
1. To learn about the relaunched ESR Education on Demand Platform.
2. To appreciate what’s new in 2020.
3. To understand the functionality and feedback for the user.
4. To become familiar with the personalised learning progress feature.

**C 4-3 13:05**

ESOR in ESR Connect: where is the future?
V. Vilgrain; Clichy/FR (valerie.vilgrain@aphp.fr)

**Learning objectives:**
1. To learn about ESR Connect.
2. To understand online education ESOR in ESR Connect.
3. To appreciate the future developments of online education ESOR.

**13:20**

Open forum discussion

**Coffee & Talk 2**

**Coffee & Talk (open forum) Session**
Organised by EuroSafe Imaging

**C 13**

**ESR iGuide: more appropriate imaging through clinical decision support**

**C 13-1 12:45**

Chairperson's introduction: Update on Croatia adoption
B. Brkljać; Zagreb/HR (boris@brkljacic.com)

**Session objectives:**
1. To understand the impact of clinical decision support on appropriate imaging utilisation.
2. To learn about the implementation of evidence-based guidelines in clinical practice.
3. To learn from user and healthcare provider experiences in Europe and the Middle East.

**C 13-2 12:53**

Medical imaging decision and support study (MIDAS)
T. J. Kroencke; Augsburg/DE

**Learning objectives:**
1. To learn about the history of initiatives to guide tailored and appropriate imaging, and reduce waste and harm to patients.
2. To understand why radiologists need to spearhead development of clinical decision support in imaging as a component of value-based radiology.
3. To appreciate decision support as a possible method to promote the appropriate, meaningful, value-based, and personalised use of medical imaging.
4. To become familiar with the MIDAS study: a multi-centre study that evaluates the impact of iGuide on overuse and inappropriate use of imaging tests.

**C 13-3 13:01**

ESR iGuide implementation in Saudi Arabia
F. Garni; Riyadh/Saudi Arabia

**Learning objectives:**
1. To learn about iGuide and its versions as a tool for more appropriate imaging and what goes on in the background.
2. To understand why and how to upgrade iGuide.
3. To appreciate the value of iGuide and its localisation tools.
4. To become familiar with the value of iGuide and its localisation tools.

**C 13-4 13:09**

ESR guideline localisation and version upgrade experience
H. Stahlbrandt; Eksjo/SE (henriettae@stahlbrandt.com)

**Learning objectives:**
1. To learn about iGuide and its versions as a tool for more appropriate imaging and what goes on in the background.
2. To understand why and how to upgrade iGuide.
3. To appreciate the value of iGuide and its localisation tools.
4. To become familiar with the value of iGuide and its localisation tools.

**13:17**

Open forum discussion
Coffee & Talk (open forum) Session
Organised by ESR Publications

C 23
How to get my manuscript accepted: tips and tricks from the editors

C 23-1 12:45
Chairperson’s introduction
M. Smits; Rotterdam/NL (marion.smits@erasmusmc.nl)

Session objectives:
1. To interact with the editors-in-chief of the ESR journals.
2. To discuss all elements of scientific peer review.
3. To understand what to consider when submitting a manuscript.
4. To learn how to respond to referees’ comments.

C 23-2 12:50
How to “polish” a submission
Y. Menu; Paris/FR (yves.menu@aphp.fr)

Learning objectives:
1. To learn the importance of the cover letter.
2. To understand how the title and key points are instrumental in drawing the reader’s attention.
3. To become familiar with the optimal construction of the introduction and the discussion.
4. To be able to differentiate what should be in the “Material and Method” or in the “Results” sections.
5. To learn how a bibliography should be built and checked.

C 23-3 12:55
How to reply to reviewers’ criticism
F. Sardanelli; Milan/IT

Learning objectives:
1. What to do when the reviewer is right.
2. What to do when the reviewer is wrong.
3. What to do when two reviewers disagree.
4. Making the revised manuscript easier to read.

C 23-4 13:00
How to manage critical reviews
L. Marti-Bonmatí; Valencia/ES (Luis.Marti@uv.es)

Learning objectives:
1. To understand how critical reviews should be conducted.
2. To learn how critical reviews are reviewed.
3. To be able to manage levels of evidence and recommendations.
13:05
Open forum discussion

NEuro

RC 711
Inflammatory and infectious central nervous system (CNS) pathology

RC 711-1 14:00
Chairperson’s introduction
A. M. Koc; Izmir/TR (alimuratkoc@gmail.com)

Session objectives:
1. To understand the role of imaging in the diagnosis and monitoring of inflammatory and infectious diseases of the central nervous system.
2. To learn basic principles in the use of imaging in neuroinfection and neuroinflammation.
3. To appreciate the added value of imaging in addition to clinical findings and laboratory tests, including cerebrospinal fluid analysis.

RC 711-2 14:05
A. Autoimmune encephalitis
P. Demaerel; Leuven/BE

Learning objectives:
1. To describe the imaging pattern of autoimmune encephalitis.
2. To learn about imaging patterns in autoimmune pathology.
3. To appreciate the role of imaging in a multidisciplinary and multimodal approach.

RC 711-3 14:28
B. Infectious encephalitis
A. Zimny; Wroclaw/PL (abernac@wp.pl)

Learning objectives:
1. To learn about the correct choice of imaging modalities and image acquisition parameters for the detection and monitoring of infectious diseases of the central nervous system.
2. To understand the benefits and challenges of image pattern recognition for diagnostic purposes.
3. To appreciate the heterogeneity of the disease spectrum, and challenges to interpreting imaging findings in the context of clinical presentation and possible comorbidities.

RC 711-4 14:51
C. Inflammatory and infectious myelitis
M. M. Thurnher; Vienna/AT (majda.thurnher@meduniwien.ac.at)

Learning objectives:
1. To learn about the spectrum of infectious diseases of the spinal cord and their most characteristic imaging features.
2. To understand the difficulties in image acquisition and image interpretation.
3. To appreciate the clinical relevance of early diagnosis and therapeutic intervention.
15:14
Panel discussion: Ask the expert: is imaging the key diagnostic modality for an early and specific diagnosis of infectious diseases leading to a better functional outcome?
Special Focus Session

SF 7a
Addressing challenges in imaging of larger patients

SF 7a-1/SF 7a-2 14:00
Chairpersons' introduction
V. Løgager; Herlev/DK (Vibeke.Loegager@regionh.dk)
J. McNulty; Dublin/IE (jonathan.mcnulty@ucd.ie)

Session objectives:
1. To consider the impact of an increasingly overweight population and increased obesity on medical imaging examinations and service provision.
2. To evaluate how we can optimise imaging in this population across different modalities.

SF 7a-3 14:06
Key considerations in general radiography examinations of larger patients
K. Knapp; Exeter/UK (K.M.Knapp@exeter.ac.uk)

Learning objectives:
1. To discuss the impact of patient size on image quality and dose.
2. To review the limitations and opportunities presented by state-of-the-art equipment.
3. To explore key optimisation steps for the examination of larger patients, children and adults, in general radiography.

SF 7a-4 14:24
Modification of ultrasound technique and protocols for larger patients
B. Kraus; Vienna/AT

Learning objectives:
1. To discuss the impact of patient size on ultrasound technique and image quality.
2. To consider current ultrasound technology, systems, and probes.
3. To explore key optimisation steps for the examination of larger patients.

SF 7a-5 14:42
Diagnostic image quality considerations for larger patients in computed tomography
S. J. Foley; Dublin/IE (shane.foley@ucd.ie)

Learning objectives:
1. To discuss the impact of patient size on image quality and dose for paediatric and adult examinations.
2. To review the limitations and opportunities presented by state-of-the-art equipment.
3. To explore key optimisation steps, techniques and protocols, for the examination of larger patients.

SF 7a-6 15:00
Optimal imaging of larger patients in magnetic resonance imaging
E. Thiry; Strasbourg/FR (thiry_elise@outlook.fr)

Learning objectives:
1. To discuss the impact of patient size on image quality in MRI.
2. To consider current scanner, coil, and sequence design in terms of larger patients.
3. To explore key optimisation steps, techniques and protocols, for the examination of larger patients.

15:18
Panel discussion: How such patient diversity can impact on daily practice and how we can improve our services?

Physics in Medical Imaging

RC 713
Current and future trends in personalised clinical dosimetry

RC 713-1 14:00
Chairperson's introduction
E. T. Samara; Sion/CH (elina.samara@hopitalvs.ch)

Session objectives:
1. To understand the needs for personalised dosimetry.
2. To learn about existing and new methodologies used for patient dosimetry.
3. To understand the challenges for the implementation of patient-specific dosimetry.

RC 713-2 14:05
A. Breast imaging dosimetry
I. Sechopoulos; Nijmegen/NL (Ioannis.sechopoulos@radboudumc.nl)

Learning objectives:
1. To understand the current method to estimate organ dose in mammography and its limitations.
2. To understand breast dosimetry in emerging modalities.
3. To learn about upcoming approaches in breast dosimetry.

RC 713-3 14:25
B. Patient dosimetry in CT
S. Edyvean; Didcot/UK (Sue.Edyvean@phe.gov.uk)

Learning objectives:
1. To review the basic dose quantities in CT.
2. To understand the limitation of the basic dose quantities in describing patient doses in CT.
3. To learn about potential physical, computational, and monitoring methods in personalised CT dosimetry.

RC 713-4 14:45
C. Patient dosimetry in cone beam computed tomograph (CBCT)
R. Pauwels; Aarhus/DK (pauwelsruben@hotmail.com)

Learning objectives:
1. To review the fundamental patient dosimetry quantities.
2. To learn about calculation of patient dose for interventional procedures.
3. To learn about real-time patient dose monitoring strategies.

15:20
Panel discussion: The future of patient-specific dosimetry
### Children in Focus

**IF 7**  
The patient journey: from foetus to adulthood

**IF 7-1** 14:00  
Chairperson’s introduction  
C. Owens; Doha/QA (owens.catherine.5@gmail.com)

**Session objectives:**  
1. To set the scene for the Children in Focus sessions.  
2. To emphasize the importance of investment in the future of our world.  
3. To introduce the programme.

**IF 7-2** 14:05  
In memoriam Prof. Helen M.L. Carty  
A. T. Carty; Liverpool/UK

**IF 7-3** 14:07  
From Women in Focus to Children in Focus  
H. Hricak; New York/US

**IF 7-4** 14:12  
Inspiration behind Children in Focus  
B. Brkljača; Zagreb/HR (boris@brkljacic.com)

**IF 7-5** 14:17  
The foetus: from imagination to imaging  
L. E. Derchi; Genoa/IT (derchi@unige.it)

**Learning objectives:**  
1. To learn the status of the unborn child in history.  
2. To appreciate the historical understanding of life in utero.  
3. To present images from carvings, paintings and illustrations along human history.

**IF 7-6** 14:35  
The impact of advanced medical intervention on childhood malignancy: where we are now and why we need to be here  
P. Veys; London/UK (paul.veys@gosh.nhs.uk)

**Learning objectives:**  
1. To learn how we have moved on over the decades to more sophisticated, less toxic therapies for cancer treatment in childhood.  
2. To appreciate the importance and human impacts of these advances.  
3. To understand the vital differences we are making with more bespoke treatments and the impact on the individual.

**IF 7-7/IF 7-8** 14:53  
My personal journey through childhood cancer in pictures: a ten year marathon  
O. Parry; London/UK  
P. Parry; London/UK

**Learning objectives:**  
1. To learn how it feels to be a child with cancer.  
2. To appreciate the personal journey taken over time and the consequences to the individual.  
3. To understand the impact of historical therapy on future adult life.

15:11  
Panel discussion: Where are we now and what has really changed?

### E³ - Advanced Course: Interactive Teaching  
**Session for Young (and not so Young) Radiologists**

**E³ 721a**  
Errare humanum est

**E³ 721a-1** 14:00  
A. Errors in chest radiograph  
D. Tack; Braine-l’Alleud/BE (denis.tack@skynet.be)

**Learning objectives:**  
1. To learn to recognise ambiguous signs in plain films.  
2. To learn to avoid the most common pitfalls in reading plain chest films.

**E³ 721a-2** 14:45  
B. Errors in CT of the chest  
J. Vilar; Valencia/ES (vilarsamper@gmail.com)

**Learning objectives:**  
1. To learn to interpret ambiguous chest CT signs.  
2. To learn to avoid the most common pitfalls in reading chest CT images.

14:00 - 15:30  
**Room E**

**E³ - ECR Master Class (Neuro)**

**E³ 726**  
How to implement MRI neuro advanced techniques at home  
Moderator:  
I. Tsougos; Larissa/GR

**E³ 726-1** 14:00  
A. Practical approach to cerebral perfusion techniques  
H. R. R. Jäger; London/UK

**Learning objectives:**  
1. To understand the essentials in MRI perfusion techniques.  
2. To describe how to interpret the data in brain perfusion MRI.  
3. To know the limitations of perfusion MRI studies.

**E³ 726-2** 14:30  
B. How to read spectroscopy  
C. Hoffmann; Tel Hashomer/IL (chen.hoffmann@sheba.health.gov.il)

**Learning objectives:**  
1. To describe the role of 1H spectroscopy in daily practice.  
2. To become familiar with 1H spectroscopic imaging and post processing techniques.  
3. To be aware of other MRI spectroscopy techniques e.g. 31P.

**E³ 726-3** 15:00  
C. How to read diffusion tensor imaging (DTI)  
R. Gasparotti; Brescia/IT (roberto.gasparotti@unibs.it)

**Learning objectives:**  
1. To learn the principals of DTI in neuroradiology.  
2. To appreciate the practical value of DTI in different neurological disorders.  
3. To be familiar with pitfalls of diffusion-weighted imaging (DWI) and DTI - common language with neurosurgeons.
3. To be aware that these guidelines are useful for reviewers and editors.

C 24
How to get my manuscript accepted: getting help from reporting guidelines

C 24-1 14:00
Chairperson's introduction
Y. Menu; Paris/FR (yves.menu@aphp.fr)

Session objectives:
1. To learn about the concept of different reporting guidelines and how they are adapted to specific types of research.
2. To understand why these guidelines are most useful when considered early in the study/manuscript preparation, avoiding major errors in the construction of the manuscript.
3. To be aware that these guidelines are useful for reviewers and editors.

C 24-2 14:03
Why are STARD and STROBE useful and how do they help authors and editors?
F. Sardanelli; Milan/IT

Learning objectives:
1. To learn about the definition of these guidelines.
2. To understand the major benefit of including these guidelines early in the study.
3. To be aware of other guidelines that may be useful for specific purposes, like CONSORT or ARRIVE.

C 24-3 14:08
What is PRISMA, and what is the recipe for a relevant meta-analysis?
M. Dewey; Berlin/DE

Learning objectives:
1. To understand the relationship between systematic review and meta-analysis.
2. To become familiar with the PRISMA checklist and flow diagram, and to understand how they can provide useful guidance for authors towards a successful meta-analysis.
3. To assess PRISMA as a tool for critical appraisal of published systematic reviews.

C 24-4 14:13
Can we elaborate guidelines or a checklist for radiomics studies?
D. Pinto Dos Santos; Cologne/DE (daniel.pinto-dos-santos@uk-koeln.de)

Learning objectives:
1. To learn about the most common weaknesses in published/submitted manuscripts dealing with artificial intelligence/radiomics.
2. To understand how reporting guidelines can help authors avoid these errors by providing a checklist.
3. To be aware of ongoing efforts in adapting reporting guidelines to the field of artificial intelligence.

C 24-5 14:18
Open forum discussion

SF 7b-2 14:04
Andrology expert's view on the role of radiology in infertility
D. Jurczak; Zagreb/HR (davor.jurczak@mef.hr)

Learning objectives:
1. To learn about male infertility problems and causes.
2. To understand when infertility is reversible and the role of accurate diagnosis, adequate medication when needed, and surgical and interventional radiology procedures in solving infertility problems from a clinical point of view.
3. To become familiar with the role of the andrologist, and the information needed by clinicians in decision making.

SF 7b-3 14:19
Imaging the infertile men: when and how?
M. Bertolotto; Trieste/IT (bertolot@units.it)

Learning objectives:
1. To learn about the radiological evaluation of infertile men. When, why, and what should be examined.
2. To understand the clinician's expectations and when radiologists can help.
3. To become familiar with the radiological procedures helpful in the diagnosis, and differentiation of infertility causes: radiological signs of varicocele, obstructive and non-obstructive azoospermia, where and how to find cryptorchid testis.

SF 7b-4 14:39
Imaging the infertile women: when and how?
R. Forstner; Salzburg/AT (r.forstner@saalk.at)

Learning objectives:
1. To learn about the radiological evaluation of infertile women. When, why, and what should be examined.
2. To understand the clinician's expectations and when radiologists can help.
3. To become familiar with the radiological procedures helpful in the diagnosis, and differentiation of infertility causes: radiological signs of varicocele, obstructive and non-obstructive azoospermia, where and how to find cryptorchid testis.

SF 7b-5 14:59
Interventional radiology in male and female infertility
R. Uberoi; Oxford/UK (raman.uberoi@ouh.nhs.uk)

Learning objectives:
1. To learn about the contemporary methods of infertility treatment including in vitro fertilisation.
2. To understand the main differences between radiological methods and other methods applied in infertility. How interventional radiologists can help in female or male infertility.
3. To become familiar with the methodology of interventional radiology procedures applied in the diagnosing and treatment of male and female infertility.

14:19
Panel discussion: What is the role of the radiologist in the workup of infertility?

SF 7c
BasiCardiac for non-cardiac radiologists

SF 7c-1 14:00
Chairperson's introduction
L. Natale; Rome/IT (luigi.natale@unicatt.it)

Session objectives:
1. To familiarise general radiologists with cardiac findings in un gated chest CT.
2. To discuss the major indication for gated cardiac CT.
3. To explain MR imaging of myocardial infarction.
4. To review the MR role in acute chest pain with normal coronary arteries.
Learning objectives:
1. To become familiar with the key clinical issues and imaging strategies for risk-adapted prostate cancer diagnosis.
2. To understand the significance and complementary roles of whole-body MRI and PSMA-PET/CT for tumour detection, (re)staging, as well as therapy planning and monitoring.
3. To learn the clinical indications for risk-adapted whole-body PSMA-PET/CT and PET/MRI according to current guidelines.

RC 707-3 14:25
B. The role of molecular imaging: PSMA-PET/CT and PET/MR
H.-P. Schlemmer; Heidelberg/DE

Learning objectives:
1. To become familiar with the key clinical issues and imaging strategies for risk-adapted prostate cancer diagnosis.
2. To understand the significance and complementary roles of whole-body MRI and PSMA-PET/CT for tumour detection, (re)staging, as well as therapy planning and monitoring.
3. To learn the clinical indications for risk-adapted whole-body PSMA-PET/CT and PET/MRI according to current guidelines.

RC 707-4 14:45
C. Theranostic approaches to prostate cancer management
H. Ilhan; Munich/DE (harun.ilhan@med.lmu.de)

Learning objectives:
1. To review and evaluate current approaches for hybrid imaging in prostate cancer.
2. To analyse the impact of imaging on several therapeutic approaches for prostate cancer.
3. To look ahead for future approaches for prostate cancer theranostics.

15:05
Panel discussion: Investigating patients with suspected and proven prostate cancer in 2025

Multidisciplinary Session
MS 7a
Multidisciplinary team for breast cancer

MS 7a-1 14:00
Chairperson's introduction
G. Ivanac; Zagreb/HR (gordana.augustan@gmail.com)

Session objectives:
1. To highlight the importance of multidisciplinary breast teams in the diagnosis and treatment of breast cancer.
2. To introduce the EU guidelines for breast centres.
3. To introduce the ‘key disciplines’ for a multidisciplinary breast centre.

MS 7a-2 14:03
Radiologist's perspective
E. Divjak; Zagreb/HR

Learning objectives:
1. To learn about the role of different imaging modalities in detecting and characterising breast lesions precisely.
2. To understand the importance of needle biopsy and of pathologic “b-classification” in the management of women with breast cancer.
3. To understand the role of a multidisciplinary approach based on case presentation.

MS 7a-3 14:21
Pathologist's perspective
C. Tomasovic-Loncaric; Zagreb/HR (ctomasov@kbd.hr)

Learning objectives:
1. To learn about the advantages and deficiencies of pathological examination in the non-invasive diagnosis of breast lesions.
2. To understand the impact of the recommended standard surgical and radiological procedures on the accuracy of pathological diagnosis.
3. To understand the impact of good communication with radiologists and clinicians on the accuracy of pathological diagnosis.

MS 7a-4 14:39
Surgeon's perspective
R. Zic, Zagreb/HR

Learning objectives:
1. To learn about different surgical options in the treatment of breast cancer patients.
2. To understand the rationale behind current perioperative and adjuvant treatment approaches.
3. To understand the principles of individualised treatment according to the biology of breast cancer.
Learning objectives:
1. To learn about the current medical treatment options and modalities.
2. To understand the indications for the neoadjuvant treatment approach and the appropriate modalities.
3. To understand the interactions of known predictive factors, current neoadjuvant/adjuvant treatment options, and prognosis within an interdisciplinary treatment concept.

MS 7a-6 15:15
Multidisciplinary case presentation and discussion
G. Ivanac; Zagreb/HR (gordana.augustan@gmail.com)

14:00 - 15:30 Room K

Multidisciplinary Session

MS 7b
Liver transplantation in patients with hepatocellular carcinoma: a multidisciplinary approach

Learning objectives:
1. To redefine the appropriate candidates and the current methodology for HCC surveillance in cirrhosis.
2. To discuss the management of patients with liver cirrhosis and hepatocellular carcinoma while on the transplant waitlist.

MS 7b-1 14:00
Chairperson’s introduction
I. G. Lupescu; Bucharest/RO (ilupescu@gmail.com)

Session objectives:
1. To highlight the crucial role of the multidisciplinary team (MDT) in prompt early diagnosis, staging of hepatocellular carcinoma (HCC), and formulating an individualised treatment plan.
2. To present the key role of the radiologist in the MDT in pre-transplant and post-transplant liver evaluation of patients with HCC.
3. To discuss the gastroenterologist’s and the surgeon’s point of view for liver transplantation in patients with “early-stage” HCC.

MS 7b-2 14:06
Surveillance of hepatocellular carcinoma in patients with cirrhosis and indications for liver transplantation: the gastroenterologist’s perspective
L. Gheorghe; Bucharest/RO (drlgheorghe@gmail.com)

Learning objectives:
1. To redefine the appropriate candidates and the current methodology for HCC surveillance in cirrhosis.
2. To update the recommendations for liver transplantation in patients with HCC.
3. To discuss the management of patients with liver cirrhosis and hepatocellular carcinoma while on the transplant waitlist.

MS 7b-3 14:28
Imaging and interventional radiology in preoperative liver transplantation: from diagnosis to bridging
R. Dumitru; Bucharest/RO (radu.dumitru@gmail.com)

Learning objectives:
1. To raise awareness of the radiological findings and their role in patient preparation.
2. To identify the normal and variant hepatic arterial, hepatic venous, portal venous, and bile duct anatomy.
3. To become familiar with interventional radiology (IR) procedures for patients on the waiting list for liver transplantation (ablation, TACE).

MS 7b-4 14:43
The point of view of the surgeon: what the surgeon needs to know?
I. Popescu; Bucharest/RO

Learning objectives:
1. To describe the different types of liver transplantation.
2. To emphasise the importance of knowing, prior to the liver transplantation, the anatomical vascular and biliary tree variants.
3. To discuss current surgical techniques and their importance in pre-transplantation evaluation.

MS 7b-5 15:05
Post-transplant complications: from diagnosis to treatment
C. M. Grasu; Bucharest/RO (mugur.grasu@gmail.com)

Learning objectives:
1. To identify the normal post-transplantation imaging findings.
2. To discuss post-transplantation complications and their imaging characteristics.
3. To present interventional radiology techniques in liver translate complications.

MS 7b-6 15:20
Multidisciplinary case presentation and discussion
I. G. Lupescu; Bucharest/RO (ilupescu@gmail.com)

14:00 - 15:30 Room M 2

E³ - Advanced Course: Interactive Teaching Session for Young (and not so Young) Radiologists

E³ 721b
Head and neck imaging

E³ 721b-1 14:00
A. Cystic neck lesions
A. Borges; Lisbon/PT (borgalexandra@gmail.com)

Learning objectives:
1. To become familiar with the differential diagnosis.
2. To know the usefulness of the biochemistry of fine needle aspiration in the differential diagnosis.

E³ 721b-2 14:45
B. Non-traumatic head and neck emergencies
A. Rovira Cañellas; Barcelona/ES (alex.rovira@idigencat.cat)

Learning objectives:
1. To become familiar with the most common cause of emergencies.
2. To learn the imaging criteria for differentiation.

14:00 - 15:30 Room M 3

ESOR Session

ESOR
Education in research

Moderators:
M. Fuchsjäger; Graz/AT
V. Vilgrain; Clichy/FR

ESOR-1 14:00
Introduction
M. Fuchsjäger; Graz/AT (michael.fuchsjaege@meduni Graz.at)

ESOR-2 14:05
ESOR in action 2020
V. Vilgrain; Clichy/FR (valerie.vilgrain@aphp.fr)

Learning objectives:
1. To become familiar with ESOR.
2. To learn about ESOR activities in 2020.
3. To understand the new topics of the ESOR Educational Programme.

ESOR-3 14:10
Getting involved in clinical trials: it is never too early
V. Goh; London/UK (vicky.goh@kcl.ac.uk)

Learning objectives:
1. To understand the rationale for clinical trials.
2. To learn about the different types of clinical trials.
3. To appreciate the role of radiologists in clinical trials.
ESOR-4 14:30
The importance of networking in research
C. Catalano; Rome/IT (carlo.catalano@uniroma1.it)

Learning objectives:
1. To stress the importance of high-quality studies and having a good publication network to have a successful career.
2. To point out that science is collaborative and that few scientific advances are made in isolation.
3. To show that the exchange of thoughts with peers allows learning more about views on different subjects.
4. To understand that having friendly relationships with other researchers can open doors to successful job interviews or fruitful collaborations.
5. To inform about the COST project that the EU has established for many years to develop networking and interdisciplinary research in Europe and beyond.

ESOR-5 14:50
My experience: Bracco research fellowship
Z. Snoj; Ljubljana/SI (ziga.snoj@gmail.com)

Learning objectives:
1. To appreciate the opportunity of a research fellowship.
2. To become familiar with research fellowship goals.
3. To gain insight into the fellowship course based on the scholar’s experience.

15:00
Awards

14:00 - 15:30  Room M 4

State of the Art Symposium

SA 7 Musculoskeletal ultrasound of the extremities

SA 7-1 14:00
Chairperson's introduction
G. M. Allen; Oxford/UK (gina_m_allen@btinternet.com)

Session objectives:
1. To describe the anatomical considerations for ultrasonography of the extremities.
2. To define the pathologic conditions whereby diagnostic ultrasonography of the extremities is utilised.
3. To explain the ultrasonography findings of the pathologic conditions of the extremities.

SA 7-2 14:06
Tendons, ligaments and retinaculae of the wrist and hand
M. Faruch-Bilfeld; Toulouse/FR (mariefaruch@hotmail.com)

Learning objectives:
1. To describe the anatomical considerations for ultrasonography of the wrist and hand.
2. To define the pathologic conditions whereby diagnostic ultrasonography of the tendons, ligaments and retinaculae of the wrist and hand is utilised.
3. To explain the ultrasonography findings of the pathologic conditions of the tendons, ligaments and retinaculae of the wrist and hand.

SA 7-3 14:24
Tendons, ligaments and retinaculae of the ankle and foot
G. M. Allen; Oxford/UK (gina_m_allen@btinternet.com)

Learning objectives:
1. To describe the anatomical considerations for ultrasonography of the ankle and foot.
2. To define the pathologic conditions whereby diagnostic ultrasonography of the tendons, ligaments and retinaculae of the ankle and foot is utilised.
3. To explain the ultrasonography findings of the pathologic conditions of the tendons, ligaments and retinaculae of the ankle and foot.

SA 7-4 14:42
Soft tissue masses
E. Drakonaki; Iraklion/GR (drakonaki@yahoo.gr)

Learning objectives:
1. To describe the anatomical considerations for ultrasonography of the soft tissues in the extremities.
2. To define the soft tissue masses whereby diagnostic ultrasonography is utilised in the extremities.

SA 7-5 15:00
Peripheral nerve disorders
C. Martinoli; Genoa/IT (carlo.martinoli@unige.it)

Learning objectives:
1. To describe the anatomical considerations for ultrasonography of the nerves in the extremities.
2. To define the pathologic conditions whereby diagnostic ultrasonography of the nerves in the extremities is utilised.
3. To explain the ultrasonography findings of the pathologic conditions of the nerves in the extremities.

15:18
Panel discussion: How can we, as radiologists, best serve the interest of the patient in musculoskeletal ultrasound of the extremities while protecting our turf?

14:00 - 15:30  Room M 5

E³ - Advanced Course: Artificial Intelligence

E³ 720 Challenges and solutions for introducing artificial intelligence (AI) in daily clinical workflow

E³ 720-1 14:00
Chairperson's introduction
E. Kotter; Freiburg/DE (elmar.kotter@uniklinik-freiburg.de)

Session objectives:
1. To become familiar with the current state of AI implementation in radiology departments.
2. To understand how you can start implementing AI based solutions.
3. To learn about challenges and pitfalls in implementing AI in your department.

E³ 720-2 14:06
A. Implementation of AI algorithms in picture archiving and communication systems (PACS)
W. B. Veldhuis; Utrecht/NL (w.veldhuis@umcutrecht.nl)

Learning objectives:
1. To learn about how you can start experimenting with AI in daily clinical routine.
2. To learn about developments to integrate multiple AI tools within one framework.
3. To learn about processes to evaluate AI algorithms for clinical use cases.

E³ 720-3 14:27
B. How to best complement human intelligence with AI
C. J. Herold; Vienna/AT (Christian.Herold@meduniwien.ac.at)

Learning objectives:
1. To understand current and emerging concept for AI and machine learning in imaging.
2. To explore whether it is possible to successfully integrate AI into clinical practice today.
3. To learn how the radiologists can be assisted by AI.

E³ 720-4 14:48
C. AI, ethics and radiology
A. Brady; Cork/IE (adrianbrady@me.com)

Learning objectives:
1. To understand ethical aspects related to data use in AI.
2. To learn about possible bias in AI algorithms.
3. To learn how to prepare radiology policies for AI.
Postgraduate Educational Programme

E³ 720-5 15:09
D. AI in radiology: culture change
H. Fleishon; Atlanta, GA/US (hfleishon@outlook.com)

Learning objectives:
1. To review possible changes in radiology practices and departments due to implementation of AI workflows.
2. To present possible impact of AI on radiology macroeconomics.
3. To discuss educational innovations to introduce AI into radiology resident training.

14:00 - 15:30 Tech Gate Auditorium

Imaging Informatics

RC 705
Everything you need to know about 3D post-processing

RC 705-1 14:00
Chairperson's introduction
E. Sorantin; Graz/AT

Session objectives:
1. To learn about the state-of-the-art information regarding 3D post-processing.
2. To understand how 3D post-processing can be used optimally in daily clinical practice.
3. To appreciate how automated 3D post-processing and quantification will lead to increased use of 3D visualisations for diagnostics and therapy planning over 2D viewing.

RC 705-2 14:05
A. 3D post-processing in 2020
A. Alberich-Bayarri; Valencia/ES (angel@quibim.com)

Learning objectives:
1. To learn about recent advances in 3D post-processing techniques.
2. To understand how these techniques can now be used in clinical practice.
3. To learn new tips and tricks to use in your daily practice.

RC 705-3 14:28
B. Making better use of your 3D package: tips and tricks
P. M. van Ooijen; Groningen/NL (p.m.a.van.ooijen@umcg.nl)

Learning objectives:
1. To learn about the functionality of state-of-the-art 3D packages.
2. To understand the pitfalls in use of 3D post-processing.
3. To appreciate the need for training in 3D post-processing techniques.

RC 705-4 14:51
C. Interpretation of 3D processing results: from image to volume reading
T. Frauenfelder; Zurich/CH (thomas.frauenfelder@usz.ch)

Learning objectives:
1. To learn about different developments in creating 3D anatomical and functional models for diagnostic and therapy planning purposes.
2. To understand the pros and cons of such technologies.
3. To appreciate that automated 3D image analysis will lead to new ways in which diagnosis and therapy planning will be performed.

16:14 Panel discussion: Will we still look at 2D images in 10 years' time?

16:00 - 17:30 Room B

E³ - Rising Stars Programme: Basic Session

BS 8 Genitourinary
Moderator:
L. E. Derchi; Genoa/IT

BS 8-1 16:00
Adrenal pathologies
M. Stajgis; Poznan/PL (stajgis@gmail.com)

Learning objectives:
1. To review the most common pathologies.
2. To present current imaging techniques for evaluation of adrenal pathologies.
3. To demonstrate the most important findings of the common adrenal pathologies.

BS 8-2 16:30
Prostate cancer
B. Hamny; Berlin/DE

Learning objectives:
1. To review the most common pathologies.
2. To present current imaging techniques for evaluation of the prostate.
3. To demonstrate the most important findings of prostate pathologies.

BS 8-3 17:00
Foetal MRI
D. Prayer; Vienna/AT (daniela.prayer@meduniwien.ac.at)

Learning objectives:
1. To learn about the indications of foetal MRI.
2. To describe the foetal MRI technique.
3. To illustrate the imaging features in most common foetal pathologies.

16:00 - 17:30 Room C or Room M 3 Room on demand

Musculoskeletal

RC 810
Inflammatory and infectious diseases of the spine: how to differentiate from degeneration
Moderator:
I. Engele; Riga/LV

RC 810-1 16:00
A. Spondyloarthritis: a diagnostic chameleon
V. Zubler; Zurich/CH

Learning objectives:
1. To explain the disease spectrum and pathophysiology of spondyloarthritides.
2. To describe the imaging findings of spondyloarthritides.
3. To describe the imaging findings of spondyloarthritides.

RC 810-2 16:30
B. Crystals: may also affect the spine
M. Reijnierse; Leiden/NL (m.reijnierse@lumc.nl)

Learning objectives:
1. To explain the disease spectrum and pathophysiology of crystal deposition diseases that affect the spine.
2. To describe the imaging findings of crystal deposition diseases that affect the spine.

RC 810-3 17:00
C. Infection: imaging, indication and techniques for biopsy
J.-L. Drape; Paris/FR (jean-luc.drape@cch.aphp.fr)

Learning objectives:
1. To describe the imaging findings of spinal infection.
2. To explain the biopsy indication and techniques in spinal infection.
Coffee & Talk (open forum) Session
Organised by the European Board of Radiology (EBR)

C 35
ETAP 2.0: a certification of excellence for radiology training departments

C 35-1 16:00
Chairperson’s introduction
D. Negru; Iasi/RO (draneg@gmail.com)

 Session objectives:
1. To learn about ETAP 2.0.
2. To understand the importance of the assessment of training programmes.
3. To learn about facts and figures of ETAP.

C 35-2 16:10
Steps for the certification
A. Montvilka; Kaunas/LT (montvilka.antanas@gmail.com)

 Learning objectives:
1. To show the phases of the ETAP 2.0 certification process.
2. To learn how to prepare for the audit process.
3. To learn how the outcome of the certification is determined.

C 35-3 16:30
Benefits of getting ETAP 2.0 certified
J. Kraft; Leeds/UK (Jeanette.Kraft@nhs.net)

 Learning objectives:
1. To know the different reasons for obtaining the certification.
2. To check the quality of the training programme.
3. To learn how to improve the training programme.

16:50
Open forum discussion

EUCLID clinical DRLs values in intervention radiology and European comparisons
W. Jaschke; Innsbruck/AT (werner.jaschke@i-med.ac.at)

 Learning objectives:
1. To learn the differences between clinical DRL and DRL.
2. To report the EUCLID clinical DRL values in interventional radiology.
3. To provide information on DRL values for procedures in Europe.

Implementation of clinical DRLs in practice: ask one centre
S. T. Schindera; Riehen/CH (sebastian.schindera@ksa.ch)

 Learning objectives:
1. To discuss the main challenges in the implementation of clinical DRLs.
2. To present the major benefits when applying clinical DRLs.
3. To discuss future application of clinical DRLs in CT.

The European Commission’s perspective
G. Simeonov; Luxembourg/LU (georgi.simeonov@ec.europa.eu)

 Learning objectives:
1. To understand the role of DRLs in the European system for radiation protection in medicine.
2. To understand the European Commission’s reasoning behind supporting the EUCLID project.
3. To obtain insights into the position of the European Commission with respect to EUCLID project results.
4. To discuss needs for further European work on DRLs, including the wider context of quality and safety in radiology.

17:10
Panel discussion: How can clinical DRLs be introduced into daily clinical routine?

Children in Focus

IF 8
Medicolegal dilemmas in paediatric medicine

IF 8-1 16:00
Chairperson’s introduction
A. C. Offiah; Sheffield/UK (amaka.offiah@nhs.net)

IF 8-2 16:06
Child abuse, creation of a non-disease? The Swedish report versus IPR/ESPR white paper: is anything really ever black and white?
A. Choudhary; Little Rock, AR/US (achoudhary@uams.edu)

 Learning objectives:
1. To learn how effective the radiologist is at diagnosing abusive head trauma.
2. To appreciate the difficulties of creating high-level scientific evidence for radiological signs of child abuse.
3. To discuss the dilemmas when selecting studies for meta-analysis of medical signs of child abuse.

IF 8-3 16:22
Medical evidence from a legal perspective
W. Duijst; Maastricht/NL (ackenniscentrum.nl@gmail.com)

 Learning objectives:
1. To understand the true impact of legal evidence and the role of medical expert witnesses.
2. To appreciate the differences between legal and medical evidence.
3. To discuss legal dilemmas when medical scientific evidence is sparse. How does the court evaluate the reliability and credibility of the expert witnesses?
Special Focus Session

SF 8a
How to diagnose and manage abdominal, retroperitoneal and pelvic incidentalomas

SF 8a-1 16:00
Chairperson's introduction
A. Rockall; London/UK (arockall@imperial.ac.uk)

Session objectives:
1. To illustrate the frequency of incidentalomas on imaging studies.
2. To discuss the pros and cons of incidental detection of abnormalities during imaging studies.
3. To highlight the economic aspects of management of incidentally detected lesions.

SF 8a-2 16:05
Liver, pancreatic and splenic incidentalomas
A. Cieszanowski; Warsaw/PL (andrezj.cieszanowski@wum.edu.pl)

Learning objectives:
1. To explain the frequency of incidental findings in the liver, pancreas, and spleen according to age and applied imaging modality.
2. To highlight the role of current imaging techniques in the differentiation of abdominal incidentalomas.
3. To describe the present guidelines and recommendations for the follow-up of incidental findings in the abdomen.

SF 8a-3 16:30
Adrenal and renal incidentalomas
M. Hellström; Gothenburg/SE (mikael.hellstrom@xray.gu.se)

Learning objectives:
1. To discuss the frequency and significance of cystic and solid renal incidentalomas.
2. To highlight the prevalence of incidental adrenal findings.
3. To describe the role of different diagnostic methods in the characterisation of renal and adrenal incidentalomas, including renal biopsy.
4. To underline the recommendations for the workup of adrenal lesions as well as for cystic and solid renal incidentalomas.

SF 8a-4 16:55
Pelvic incidentalomas
D. Akata; Ankara/Tr (akataden@gmail.com)

Learning objectives:
1. To outline the prevalence of pelvic incidentalomas in male and female populations in different age groups.
2. To highlight the role of US, CT, and MRI in differentiation of pelvic incidentalomas.
3. To explain how to follow-up and manage incidentally detected pelvic masses.

17:20
Panel discussion: The management of incidentalomas: when to dismiss, follow-up or treat them?

16:00 - 17:00 Coffee & Talk 2

Coffee & Talk (open forum) Session
Organised by the ESR Subcommittee on Audit and Standards

C 14
Clinical audit and the European-Basic Safety Standards (EU-BSS): where are we now?

C 14-1 16:00
Chairperson’s introduction
D. Howlett; Eastbourne/UK (david.howlett@nhs.net)

Session objectives:
1. To reinforce the importance of a clinical audit for radiology departments.
2. To update on Esperanto: distribution and feedback.
3. To consider the future direction for the European clinical audit.

C 14-2 16:05
Clinical audit: EU-BSS uptake, the ESR perspective
A. Brady; Cork/IE (adrianbrady@ime.com)

Learning objectives:
1. To review the requirements of the EU-BSS.
2. To present updated survey findings of EU-BSS uptake amongst European radiology departments.
3. To consider the challenges around EU-BSS uptake and transposition.

C 14-3 16:20
Clinical audit: EU-BSS uptake, the regulator perspective
A. Karoussou-Schreiner; Luxembourg/LU

Learning objectives:
1. To update on EU-BSS transposition across Europe.
2. To update on the Heads of the European Radiological Protection Competent Authorities (HERCA) position.
3. To discuss the process and requirements of inspection.

C 14-4 16:30
Case example: clinical audit template
T. Ø. Holter; Oslo/NO (uxtaho@ous-hf.no)

Learning objectives:
1. To review a clinical audit performed at a local level.
2. To appreciate the challenges and hurdles encountered.
3. To discuss the benefits of a clinical audit at the departmental level.

16:45
Open forum discussion: To discuss the potential for future pan-European projects
ESR meets Israel

Meet 8a
Radiology in Israel: technology and professionalism

Presiding:
B. Brkljačić; Zagreb/HR
J. Sosna; Jerusalem/IL

Meet 8a-1 16:00
Welcome from the ESR President
B. Brkljačić; Zagreb/HR (boris@brkljacic.com)

Meet 8a-2 16:06
Introduction
J. Sosna; Jerusalem/IL (jacobs@hadassah.org.il)

Learning objectives:
1. To present the fundamentals of radiology in Israel.
2. To present and discuss the role of artificial intelligence (AI) and technology in radiology in Israel.
3. To discuss the humanistic aspects of radiology.

Meet 8a-3 16:12
Will artificial intelligence (AI) replace the radiologist?
E. Konen; Ramat Gan/IL (eli.konen@sheba.health.gov.il)

Learning objectives:
1. To describe AI principles.
2. To present current AI applications.
3. To discuss the role of the future radiologist (AI, human, both).

16:32
Interlude 1: Israel: a rich history and bright future

Meet 8a-5 16:37
Doctor-patient communication in radiology
D. Shaham; Jerusalem/IL (dshaham@hadassah.org.il)

Learning objectives:
1. To present the human aspects of radiology work.
2. To describe the interpersonal interactions of the radiologist.
3. To present cultural differences in the perception of radiologists.

16:57
Interlude 2: Musical piece

Meet 8a-7 17:02
Imaging technology development: the Israeli experience
J. Sosna; Jerusalem/IL (jacobs@hadassah.org.il)

Learning objectives:
1. To present Israel as a start-up nation.
2. To describe technological developments that originated from Israel.
3. To present imaging technology innovations in development and in clinical practice.

17:22
Panel discussion: The future of radiology: technology- or human-centred?

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Head and Neck

RC 808
Differential diagnoses you don’t want to miss

Moderator:
E. B. Arkink; Reykjavik/IS

RC 808-1 16:00
A. Differential diagnoses of bone lesions in the head and neck: excluding dental cysts
V. Lenoir; Geneva/CH

Learning objectives:
1. To understand how to classify bone lesions in the head and neck.
2. To recognise which bone lesions you should be concerned about.
3. To become familiar with the most appropriate imaging modalities and protocols to use.

RC 808-2 16:30
B. Differential diagnoses of cystic lesions in the head and neck: including dental cysts
S. Robinson; Vienna/AT (s.robinson@dzvu.at)

Learning objectives:
1. To become familiar with the common cystic lesions in the neck.
2. To understand the pitfalls when assessing cystic lesions.
3. To learn about the most appropriate imaging techniques to use.

RC 808-3 17:00
C. Differential diagnoses of soft tissue masses of the face and neck in adults
D. Farina; Brescia/IT (davide.farina@unibs.it)

Learning objectives:
1. To become familiar with the anatomy.
2. To learn which imaging technique to use.
3. To understand the typical imaging appearance of soft tissue masses.

16:00 - 17:00 Coffee & Talk 3

Coffee & Talk (open forum) Session

C 25
Publishing in the radiography journal

C 25-1 16:00
Chairperson’s introduction
J. M. Nightingale; Sheffield/UK (J.Nightingale@shu.ac.uk)

Session objectives:
1. To discuss all elements of scientific peer review.
2. To understand what to consider when submitting a manuscript.
3. To learn how to respond to referees’ comments.
4. To interact with the radiography journal editorial team.

C 25-2 16:02
A tool to help establish the evidence base for the profession
H. Precht; Middelfart/DK (hepr@ucld.dk)

Learning objectives:
1. To consider why publishing is important for the development of the radiographer profession.
2. To explore the importance of publishing for individual researchers and practitioners.
3. To explore the importance of publishing for clinical and academic departments.
SF 8b-4 16:51
Promises and pitfalls of magnetisation transfer and diffusion
M. Cercignani; Brighton/UK (m.cercignani@bsms.ac.uk)

Learning objectives:
1. To present basic and advanced methods for magnetisation transfer (MT) and diffusion quantification.
2. To define the tissue microstructure and structural connectivity features that affect diffusion, and to give updates on novel quantitative diffusion metrics, their potential, and limits for clinical applications.
3. To understand MT modelling and feature extraction, and to describe the state of the art of MT quantification in clinical and pre-clinical studies.

16:19
Panel discussion: From direct mapping to extrapolating MR-properties

16:00 - 17:30 Darwin (Room D2)

ISRRT meets Canada

Meets 8b
Radiography profession performance and future challenges in Canada

Presiding:
E. Agadakos; Athens/GR
D. Katsifarakis; Athens/GR

Meets 8b-1/Meets 8b-2 16:00
Chairpersons’ Introduction
E. Agadakos; Athens/GR (eagadakos@gmail.com)
D. Katsifarakis; Athens/GR (dkatsifarakis@gmail.com)

Session objectives:
1. To recognise the demographics and patient accessibility to health care services in the country.
2. To understand the infrastructure of the imaging health services and their contribution to the primary and hospital health services to sustain the population and individual health.
3. To inform on the role of the professional society in influencing the future educational programme of radiographers in the country.
4. To become aware of the strategies employed by the professional society to support and promote the radiographers’ role in the community and the health care system.
5. To gain information on radiography career structure and opportunities for professional development of radiographers in Canada.
6. To appreciate the radiographers’ post-graduation professional requirements and relevant opportunities, and to keep up to date with evidence-based practice in imaging services.
7. To communicate the society’s position on artificial intelligence and preliminary actions undertaken to prepare radiographers in embracing the changes.

Meets 8b-3 16:05
The regulatory situation in Canada for radiographers and radiological technologists
A. Cromp; St-Léonard, QC/CA (acromp@iac-consultant.ca)

Learning objectives:
1. To learn how the profession of radiographers is regulated in Canada.
2. To understand how the regulation differs from one province to another, and the challenges of mobility for radiographers.
3. To become familiar with the continuing professional development obligations imposed by regulators.
4. To understand the difference between regulators, the National Alliance of Regulators, and the Canadian Association of Medical Radiation Technologists (CAMRT).

Meets 8b-4 16:23
The current and evolving state of medical radiation technology (MRT) education in Canada
C. Bru; Ottawa, ON/CA (cbru@camrt.ca)

Learning objectives:
1. To examine the different models of entry-level MRT education in Canada.
2. To identify trends impacting entry-level MRT education.
3. To discuss Canada’s transition to a role-based competency framework.
4. To describe the advanced practice landscape in Canada.
Session objectives:
1. To learn the overall applications of AI in medical imaging.
2. To understand the methods in which these applications are being researched, tested, and sold to health care professionals, and the steps radiology groups are taking to educate their members.
3. To appreciate the value that both radiographers and radiographer societies around the world can provide by ensuring safe, accountable rollouts of AI tools.
4. To become familiar with AI as a clinical tool rather than an overcomplicated, inaccessible entity.

Meeting 8b-6 16:59
Quality, safety and peer review: a Canadian experience
J. M. L. Bosmans: Edmonton, AB/CA (Steve.DeColle@albertahealthservices.ca)

Learning objectives:
1. To learn about technologist peer learning.
2. To appreciate the value of peer learning to the patient experience.
3. To understand the implications peer learning has on quality and safety.

17:17
Panel discussion

16:00 - 17:30 Descartes (Room D3)

Professional Challenges Session

PC 8
Patient engagement, visible radiology and eHealth

PC 8-1/PC 8-2 16:00
Chairpersons’ introduction
N. Bedlington: Vienna/AT
E. Kotter: Freiburg/DE (elmar.kotter@uniklinik-freiburg.de)

Session objectives:
1. To learn about the challenges of eHealth today and tomorrow.
2. To appreciate the communication and cooperation of patients using eHealth.
3. To understand the relevance of visible and communicating radiologists.

PC 8-3 16:06
Clinical services, communication with patients: which kind of report/language is expected
J. M. L. Bosmans: Ghent/BE (janbosmans@telenet.be)

Learning objectives:
1. To learn about the pros and cons of radiologists’ communication of imaging results to patients.
2. To appreciate the opportunities for direct communication with patients.
3. To understand the potential of structured reporting providing patient-tailored reports.

PC 8-4 16:22
Patient engagement in research: donation of data, risk-sharing in oncology, incentives for screening
E. Briers: Brussels/BE (elkebriers@telenet.be)

Learning objectives:
1. To learn about the need for clinical data for research and artificial intelligence developments.
2. To appreciate that patients with serious, life-threatening diseases perform a benefit/risk assessment in making decisions.
3. To understand the value of imaging in screening, and ways to improve acceptance.

PC 8-5 16:38
Patient access to reports and images: solutions and experiences
W. Gibbs: Scottsdale/US (wendeNgibbs@gmail.com)

Learning objectives:
1. To appreciate the risks of misinterpretation of radiology reports by clinicians.
2. To understand the implications of clear radiology reporting for patients.
3. To appreciate the value of standardised language and structured reporting.

PC 8-6 16:54
Education and training
L. Oleaga Zuñiga: Barcelona/ES (lauraoleaga@gmail.com)

Learning objectives:
1. To learn about the need for education in non-imaging competences.
2. To appreciate inter-professional training in communication techniques.
3. To understand patient’s expectations.

17:10
Panel discussion: Should radiology be more active in direct communication with patients?

16:00 - 17:30 Room D

Special Focus Session

SF 8c
Fibrotic lung diseases: what radiologists should know or learn

SF 8c-1 16:00
Chairperson’s introduction
S. R. Desai: London/UK

Session objectives:
1. To learn about the imaging patterns of drug-induced fibrosis.
2. To review the imaging patterns of drug-induced fibrosis.
3. To learn about the longitudinal evolution of post-radiation fibrosis.

SF 8c-2 16:05
Fleischner updated criteria for the diagnosis of idiopathic pulmonary fibrosis (IPF)
N. Sverzellati: Parma/IT (nicola.sverzellati@unipr.it)

Learning objectives:
1. To become familiar with the patterns of definite or probable usual interstitial pneumonia (UIP).
2. To clarify the differences between idiopathic and secondary manifestations of lung fibrosis.
3. To learn about novel diagnostic and quantification imaging methods.

SF 8c-3 16:30
Drug and radiation-induced lung fibrosis
C. M. M. Schaefer-Prokop: Amersfoort/NL (cornelia.schaeferprokop@gmail.com)

Learning objectives:
1. To review the current medications potentially causing lung fibrosis.
2. To appreciate the imaging patterns of drug-induced fibrosis.
3. To learn about the longitudinal evolution of post-radiation fibrosis.

SF 8c-4 16:55
Connective tissue disease-related lung fibrosis
G. Chassagnon: Paris/FR

Learning objectives:
1. To review the CT features of non-specific interstitial pneumonia (NSIP).
2. To appreciate that patients with serious, life-threatening diseases perform a benefit/risk assessment in making decisions.
3. To learn about deep learning-based quantification of connective tissue disease-related lung fibrosis.

17:20
Panel discussion: The pivotal role of radiologists for lung fibrosis management
Emergency Imaging

RC 817
Why do I miss fractures in emergency?

RC 817-1 16:00
Chairperson's Introduction
S. Wirth; Munich/DE
(wirth.online@googlemail.com)

Session objectives:
1. To learn the typical constellations and findings of missed fractures.
2. To understand the potential complications resulting from missing fractures.
3. To appreciate direct and indirect fracture signs with different imaging modalities.

RC 817-2 16:05
A. Missed fractures in children
K. Johnson; Birmingham/UK (karl.johnson2@nhs.net)

Learning objectives:
1. To become familiar with commonly missed fractures in children.
2. To understand which additional information will influence the choice of imaging modality.
3. To learn about atypical imaging findings in different clinical scenarios.

RC 817-3 16:30
B. Missed fractures in adults
S. Döring; Brussels/BE (seema.doering@gmx.net)

Learning objectives:
1. To become familiar with the most commonly missed fractures in adult patients.
2. To understand which additional information will influence the choice of imaging modality.
3. To learn about atypical imaging findings in adult patients after trauma.

RC 817-4 16:55
C. Missed musculoskeletal injuries in whole-body trauma
A. Platon; Geneva/CH (Alexandra.Platon@hcuge.ch)

Learning objectives:
1. To become familiar with the most commonly missed musculoskeletal injuries in patients after polytrauma.
2. To understand the clinical impact of missed subtle injuries on clinical outcome of trauma victims.
3. To be familiar with less typical imaging findings in musculoskeletal injuries.

17:20
Panel discussion: How to reduce the rate of missed fractures most effectively and efficiently

Hybrid Imaging

RC 806
Advancing clinical hybrid imaging

RC 806-1 16:00
Chairperson's introduction
T. H. Helbich; Vienna/AT (Thomas.Helbich@meduniwien.ac.at)

Session objectives:
1. To understand the basic concepts of hybrid imaging.
2. To appreciate the clinical role of hybrid imaging.
3. To learn how hybrid imaging can be used more effectively in routine practice.

RC 806-2 16:06
A. Cost-effectiveness of hybrid imaging
B. M. Fischer; London/UK (Malene.fischer@kcl.ac.uk)

Learning objectives:
1. To discuss why clinicians often consider hybrid imaging as the expensive choice, and whether the notion of PET/CT as an expensive technology is fair.
2. To obtain knowledge of basic concepts of health economy.
3. To present and discuss examples of cost-effectiveness studies on the use of PET/CT in oncology.
4. To evaluate how hybrid imaging may be incorporated as a cost-effective tool into routine clinical practice.

RC 806-3 16:29
B. PET/MRI in clinical routine
V. Goh; London/UK (vickygoh@kcl.ac.uk)

Learning objectives:
1. To learn about the basic concepts underlying PET/MRI.
2. To understand the potential clinical advantages of combining PET and MRI.
3. To discuss how PET/MRI may find a role as a routine clinical test in the future.

RC 806-4 16:52
C. How PET/MRI enables accurate fusion of radiation treatment?
U. van der Heide; Amsterdam/NL (u.vd.heide@nk.nl)

Learning objectives:
1. To learn about the role of PET/MRI in radiation oncology.
2. To understand how MRI and/or PET/MRI can be used to monitor radiotherapy response.
3. To appreciate the role of hybrid imaging in targeting and modulating radiation therapy.

17:15
Panel discussion: Clinical hybrid imaging in the real world

E³ - Advanced Course: Hot Topics in Emergency Radiology

E³ 818
Occlusive vascular diseases: no time to lose!

E³ 818-1 16:00
Chairperson's introduction
R. Basilico; Chieti/IT

Session objectives:
1. To understand common pathways for acute infarction throughout the body.
2. To identify early signs of ischaemia.
3. To appreciate how early diagnosis can affect outcome favourably.

E³ 818-2 16:06
A. Acute stroke: CT and MRI findings
K. Katulska; Poznan/PL (katarzyna_katulska@op.pl)

Learning objectives:
1. To learn about the role of MRI and PET/MRI in radiation oncology.
2. To understand how MRI and/or PET/MRI can be used to monitor radiotherapy response.
3. To appreciate the role of hybrid imaging in targeting and modulating radiation therapy.

16:00 - 17:30 Room M 1

16:00 - 17:30 Room M 2

E³ 818-3 16:27
B. Acute chest pain
H. Alkadhi; Zurich/CH

Learning objectives:
1. To learn about the imaging assessment of acute chest pain.
2. To become familiar with cardiac CT findings in the emergency setting.
3. To understand the importance to establish gated CT protocols covering more than the heart alone.
C. Acute mesenteric ischaemia
M. Zins; Paris/FR
(mzins@hpsj.fr)

Learning objectives:
1. To learn about the imaging protocols for the detection of mesenteric ischaemia.
2. To become familiar with the detection of the crucial findings of mesenteric ischaemia.
3. To become familiar with the role of diagnostic and interventional radiologists in the assessment of mesenteric ischaemia.

D. Interventional radiology in acute mesenteric ischaemia
A. Krajina; Hradec Králové/CZ
(antonin.krajina@fnhk.cz)

Learning objectives:
1. To learn about the indications and contraindications for endovascular treatment.
2. To learn about the available techniques for urgent revascularisation.
3. To learn about the outcomes following endovascular revascularisation, including the complications.

RC 816
Role of imaging in cancer of unknown primary (CUP)
Moderator: N. I. Traikova; Plovdiv/BG

A. CT: the useful report
S. Gourtsoyianni; Athens/GR
(sgty76@gmail.com)

Learning objectives:
1. To become familiar with the potential of CT and its limitations.
2. To discuss the value of morphological imaging for assessment of unknown primaries.
3. To learn about the pitfalls of CT.

B. MRI with diffusion weighted imaging (DWI) and dynamic contrast-enhancement (DCE)
A. R. P. Padhani; London/UK
(anwar.padhani@stricklandsctaner.org.uk)

Learning objectives:
1. To understand the benefit of MRI in contrast to other modalities.
2. To learn about functional MRI techniques.
3. To discuss the limitations of DWI and DCE for CUP diagnostics.

C. Nuclear medicine: (PET/CT, PET/MRI, novel tracers)
T. Bäuerle; Erlangen/DE
(tobias.baeuerle@uk-erlangen.de)

Learning objectives:
1. To learn about the benefits and limitations of hybrid imaging for assessment of CUP.
2. To understand novel concepts in tracer development.
3. To discuss the future role of nuclear medicine and radiology for CUP.

D. Unknown primary: emerging challenges for imaging and the importance of integrated diagnostics
H. Hricak; New York/US
(h_hricak@nymed.cawm)

Learning objectives:
1. To gain familiarity with the tests and procedures used to evaluate CUP.
2. To understand the pitfalls and benefits of different imaging modalities.
3. To grasp essentials in integrating imaging, molecular genetics, tumour markers, and therapy.
E³ 820-4 16:51
C. Using radiomics in the clinic: a decision support tool?
M. E. Mayerhöfer; Vienna/AT (marius.mayerhoefer@meduniwien.ac.at)

Learning objectives:
1. To learn the clinical scenarios where radiomic analyses may be helpful.
2. To appreciate the place of these analyses in the context of other quantifiable biomarkers.
3. To understand the implications of using these analyses in the clinic.

17:14
Panel discussion: How do we make sure radiomic analyses are ready for prime time use?

16:00 - 17:30 Tech Gate Auditorium

E³ - ECR Master Class (Vascular)

E³ 826
Cone-beam, 4D and more:
new diagnostic tools for vascular diseases
Moderator:
T. Jakobs; Munich/DE

E³ 826-1 16:00
A. The role of intraprocedural perfusion assessment in peripheral arterial disease
J. A. Reekers; Amsterdam/NL

Learning objectives:
1. To understand the technique of intraprocedural perfusion assessment.
2. To learn how to target peripheral revascularisation therapy based on perfusion assessment.
3. To discuss the value of using intraprocedural perfusion assessment on the outcome of endovascular therapy for peripheral artery disease.

E³ 826-2 16:30
B. CT 4D imaging after thoracic endovascular aortic repair (TEVAR)
R. Schernthaner; Vienna/AT (ruediger.schernthaner@meduniwien.ac.at)

Learning objectives:
1. To understand the challenges of imaging follow-up after TEVAR.
2. To become familiar with the technique of 4D CT.
3. To learn how to establish treatment recommendations based on 4D CT results after TEVAR.

E³ 826-3 17:00
C. How cone-beam CT can change your practice in interventional radiology
R. Uberoi; Oxford/UK (raman.uberoi@ouh.nhs.uk)

Learning objectives:
1. To understand the technique of cone-beam CT.
2. To learn about the role and applications of the cone-beam in the angio suite.
3. To discuss the influence on daily clinical practice in interventional radiology.
**E² - Rising Stars Programme: Basic Session**

**BS 9a**  
Radiologic anatomy: head and neck  
**Moderator:** M. Becker; Geneva/CH  

**BS 9a-1** 08:30  
Neck spaces  
N. I. Traikova; Plovdiv/BG (nikoletatraikova@gmail.com)  

**Learning objectives:**  
1. To learn the anatomy of the neck spaces.  
2. To discuss current imaging techniques for their evaluation.  
3. To describe the imaging appearance of most common pathological findings.

**BS 9a-2** 09:00  
Temporal bone  
J. W. Casselman; Bruges/BE

**Learning objectives:**  
1. To know which technique is best suited to visualise specific anatomical structures of the temporal bone.  
2. To recognise the clinically most important anatomical structures of the middle and inner ear.  
3. To learn how the anatomical structures of the temporal bone appear in the transverse, coronal, and double oblique plane.

**BS 9a-3** 09:30  
Larynx  
R. Maroldi; Brescia/IT (roberto.maroldi@unibs.it)

**Learning objectives:**  
1. To understand the anatomy and signals of the cartilage framework of the larynx.  
2. To learn the surgical subdivision of the paraglottic space of the larynx into its key compartments.  
3. To learn the anatomy and signals of the muscles within the larynx.

**SF 9a** 08:54  
Somatostatin receptor imaging and therapy  
L. Aloj; Cambridge/UK

**Learning objectives:**  
1. To understand the biology underlying somatostatin-based agents.  
2. To consider different approaches to imaging and therapy through the use of the somatostatin receptor.  
3. To learn about the current clinical applications guiding neuroendocrine tumour therapy.

**SF 9a-4** 09:12  
Hybrid PET and SPECT for cardiovascular imaging  
A. Flotats; Barcelona/ES

**Learning objectives:**  
1. To learn the clinical need for hybrid imaging in cardiovascular diseases.  
2. To consider the role for both PET and SPECT imaging.  
3. To learn the range of cardiovascular tracers that are used clinically and their role.

**SF 9a-5** 09:30  
Imaging to guide immuno-oncology  
U. Mahmood; Oak Brook/US (umahmood@mgh.harvard.edu)

**Learning objectives:**  
1. To understand the challenges of imaging response to immunomodulatory therapy.  
2. To understand current standard of care imaging for immuno-oncology.  
3. To understand some of the novel PET imaging approaches in clinical trials and development.

**Panel discussion: New trends in hybrid imaging**

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**C 5**  
What would the next generation of radiologists look like?  
**Moderator:** C. Catalano; Rome/IT

**C 5-1** 09:00  
A clinical radiologist  
R. Mansour; Oxford/UK

**Learning objective:**  
1. To learn about the challenges and opportunities for the next generation clinical radiologists.

**C 5-2** 09:08  
An interventional radiologist  
A. Napoli; Rome/IT (alessandro.napoli@uniroma1.it)

**Learning objectives:**  
1. To learn new trends in interventional radiology.  
2. To understand the evolving role of interventional radiology.  
3. To appreciate new technology advances within the interventional radiology domain.  
4. To become familiar with future assets of interventional radiology culture for residents and professionals.

**C 5-3** 09:16  
An “artificial intelligent” radiologist  
L. Marti-Bonmati; Valencia/ES (Luis.Marti@uv.es)

**Learning objectives:**  
1. To learn about the use of artificial intelligence and deep learning (AI/DL) tools during each step of the radiology value chain.  
2. To understand how AI/DL solutions can improve radiological reporting.  
3. To appreciate the AI/DL approaches towards automatic segmentation and properties extraction in medical imaging.  
4. To become familiar with the main limitations of AI/DL tools in the radiological environment.
C 5-4 09:24
A researcher
O. Clement, Paris/FR (olivier.clement@aphp.fr)

Learning objectives:
1. To learn about the opportunities to do research in radiology.
2. To understand the funding programmes and the role of EIBIR.
3. To become familiar with the different aspect of an academic career.

09:32
Open forum discussion

08:30 - 10:00 Room O
Paediatric
RC 912
Foetal imaging and postnatal correlation

RC 912-1 08:30
Chairperson’s introduction
D. Prayer, Vienna/AT (daniela.prayer@meduniwien.ac.at)

RC 912-2 08:35
A. Foetal MRI advanced techniques
G. Kasprian, Vienna/AT (gregor.kasprian@meduniwien.ac.at)

Learning objectives:
1. To learn about the principles of advanced techniques in foetal MRI.
2. To understand the potential for their use.
3. To discuss the limitations and disadvantages of these techniques.

RC 912-3 08:53
B. Corpus callosum anomalies: pre- and postnatal correlation
E. Vazquez Mendez, Barcelona/ES (evazquez@vhebron.net)

Learning objectives:
1. To evaluate the diagnostic accuracy of foetal MRI for diagnosis.
2. To compare pre- and postnatal MRI data.
3. To ascertain the outcome in cases of isolated complete or partial agenesis.

RC 912-4 09:11
C. Foetal MRI of acquired brain pathology
L. Guibaud, Bron/FR

Learning objectives:
1. To learn about the various types of acquired brain pathology in the foetus.
2. To understand the limitations in the comprehension of the underlying cause.
3. To discuss the best estimates of the prevalence of acquired brain pathology.

RC 912-5 09:29
D. Pre- and postnatal congenital cystic renal diseases
F. E. Avni, Lille/FR (favni@skynet.be)

Learning objectives:
1. To learn about differential diagnosis of hyperechoic kidneys in foetuses and children.
2. To become familiar with the latest classification of inherited renal cystic diseases.
3. To discuss the limitations of the imaging methods for diagnosis.

09:47
Panel discussion: How to overcome the challenges in foetal MRI in routine practice and research

08:30 - 10:00 Studio 2020
Special Focus Session
SF 9b
Imaging of migrant and refugee children

SF 9b-1 08:30
Chairperson’s introduction
M. Soudack, Ramat Gan/IL (michalle.soudack@health.sheba.gov.il)

Session objectives:
1. To learn about challenges in providing healthcare to migrant and refugee children in Europe.
2. To be aware of emerging diseases in migrant and refugee children.
3. To discuss the scientific and medicolegal dilemmas when using radiological methods for age determination in unaccompanied refugee minors.

SF 9b-2 08:35
Challenge of promoting health of refugee and migrant children in Europe
A. Bjerrum, Stockholm/SE (anders.hjern@su.se)

Learning objectives:
1. The epidemiology of infectious and chronic diseases in this population compared to domestic children: the clinician’s perspective.
2. To learn about the challenges of promoting health of refugee and migrant children in Europe.
3. To discuss how to improve the management of migrant and refugee children and carers, with a special focus on imaging and intervention.

SF 9b-3 08:59
Imaging of emerging diseases in refugee and migrant children
B. Oğuz, Ankara/TR (oguzberna@yahoo.com)

Learning objectives:
1. The epidemiology of infectious and chronic diseases in this population compared to domestic children: the radiologist’s perspective.
2. To learn about the spectrum of findings on imaging in migrant and refugee children.
3. To discuss new diagnostic and practical challenges for radiologists.

SF 9b-4 09:23
Age determination for legal purpose
L. C. Müller, Oslo/NO (lilmul@ous-hf.no)

Learning objectives:
1. To learn about the principles and limitations of radiological age determination.
2. To define the role of the paediatric radiologist in age determination for legal purposes.
3. To discuss ethical considerations in medical age determination.

09:47
Panel discussion: The role of the radiologist in the management of refugee and migrant children

08:30 - 09:30 Coffee & Talk 2
Coffee & Talk (open forum) Session
Organised by EuroSafe Imaging

C 15
ESR and EuroSafe Imaging initiatives: improving justification

C 15-1 08:30
Chairperson’s introduction
G. Frija, Paris/FR (guy.frija@aphp.fr)

Session objectives:
1. To describe the importance of justification as a principle of radiation protection and medicine.
2. To describe four key implications for the justification process resulting from European legislation.
3. To provide a brief historical perspective of deficiencies in justification.
C 15-2 08:35
Audit and Standards Subcommittee’s published surveys
D. Howlett, Eastbourne/UK (david.howlett@nhs.net)

Learning objectives:
1. To consider the requirements of the European basic safety standards directive (EU-BSS) with an emphasis on clinical audit.
2. To present the results of EU-BSS uptake surveys amongst European radiology departments.
3. To discuss the implications of survey findings and mechanisms to enhance departmental clinical audit processes.

C 15-3 08:45
Overview of justification processes following previous HERCA initiatives and potential new ones
A. Karoussou-Schreiner; Louvembourg/LU

Learning objectives:
1. To outline the actions conducted by regulatory authorities in Europe within HERCA on justification.
2. To discuss the findings following the inspection action conducted on justification in radiology in 2016.
3. To present the campaign “Getting the right image for my patient” that promotes the appropriate use of medical imaging.

C 15-4 08:55
Giving a practical, on the ground view of how justification is handled on a day-to-day basis
A. Palkó; Szeged/HU (palkoand@gmail.com)

Learning objectives:
1. To demonstrate how dose monitoring is built into the daily workflow of a tertiary diagnostic radiology centre.
2. To understand the effect of required justification, in cases of dose exceeding DRL, on the attitude and practice of physicians and technicians.

C 15-5 09:05
Activities undertaken during 2019/20 to assess and improve matters
G. Friga; Paris/FR (guy.friga@aphp.fr)

Learning objectives:
1. To discuss the roles of professionals in the justification process.
2. To outline the key aspects of a draft EuroSafe discussion paper on improving justification.
3. To describe initial feedback on the paper from EuroSafe Imaging Star.

09:15
Open forum discussion

08:30 - 10:00 Room E

Special Focus Session

SF 9c My top three tips for breast imaging

SF 9c-1 08:30
Chairperson’s introduction
M. Fuchsjaeger; Graz/AT (michael.fuchsjaeger@medunigraz.at)

Session objectives:
1. To appreciate the fundamental tips and tricks of the most renowned European breast radiologists for clinical practice.
2. To acknowledge the single most important aspects for successfully performing breast examinations.
3. To learn how to avoid common pitfalls in breast radiology.

SF 9c-2 08:35
Screening with tomosynthesis
S. Zackrisson; Malmö/SE (sophia.zackrisson@med.lu.se)

Learning objectives:
1. To understand why tomosynthesis is better than mammography for breast cancer screening.
2. To appreciate the current scientific evidence of tomosynthesis in screening.
3. To acknowledge what further steps are needed before implementation in screening.

SF 9c-3 08:41
Automated breast ultrasound
A. Vourtsis; Athens/GR (athlonvourtsi@yahoo.gr)

Learning objectives:
1. To recognise artefacts specific to automated breast ultrasound (ABUS).
2. To understand the added value of information provided by contrast-enhanced spectral mammography.
3. To gain insight into possible indications for ABUS.

SF 9c-4 08:47
Complex cystic and solid lesions
P. Kapetas; Vienna/AT (panagiotsis.kapetas@meduniwien.ac.at)

Learning objectives:
1. To understand the difference between complex cystic and solid lesions from other cystic lesions of the breast.
2. To become familiar with complementary sonographic techniques for the accurate characterisation of cystic breast lesions.
3. To be able to properly manage complex cystic and solid lesions of the breast.

Questions and discussion

SF 9c-5 08:59
Imaging the axilla
A. O. Oktay Alfatli; Izmir/TR (aysenuroktay@ege.edu.tr)

Learning objectives:
1. To understand the clinical role of axillary staging.
2. To learn the imaging features of abnormal lymph nodes and the criteria for biopsy.
3. To understand the importance of discriminating minimal vs advanced nodal disease.

SF 9c-6 09:05
Contrast-enhanced spectral mammography
C. S. Balleyquier; Villejuif/FR

Learning objectives:
1. To understand the technical principles of contrast-enhanced spectral mammography.
2. To understand the added value of information provided by contrast-enhanced spectral mammography.
3. To become familiar with the information provided by contrast-enhanced spectral mammography and breast MRI regarding lesion morphology and enhancement.

SF 9c-7 09:11
Stereotactic-guided biopsy
D. Dillas; Sremska Kamenica/RS

Learning objectives:
1. To understand the indications for stereotactic-guided breast biopsy.
2. To learn the technical aspects of stereotactic biopsy.
3. To understand the importance of marker clip placement post-biopsy.

Questions and discussion

SF 9c-8 09:23
US-guided biopsy
G. Ivanac; Zagreb/HR (gorana.augustan@gmail.com)

Learning objectives:
1. To understand current indications, contraindications, and possible complications of US-guided biopsy.
2. To be familiar with different available biopsy systems and to know which one to choose according to the clinical setting.
3. To learn the most important technical tips for performing a US-guided biopsy successfully.

SF 9c-11 09:29
MRI-guided biopsy
R. M. Mann; Nijmegen/NL (k.mann@rad.umin.nl)

Learning objectives:
1. To understand the importance of pre-biopsy preparation including patient information.
2. To be familiar with how to relate lesion and needle positions.
3. To appreciate tricks for targeting lesions in complicated locations (superficial, deep, retroareolar).
SF 9c-12  09:35  
Treatment response and therapy monitoring  
E. M. Fallenberg; Munich/DE  

Learning objectives:  
1. To learn what is important in the reporting of the treatment response.  
2. To understand the accuracy of mammography, ultrasound, and magnetic resonance in the monitoring of therapy.

SF 9c-13  09:41  
Post-therapy evaluation  
J. Camps Herrero; Valencia/ES (juliacamps@gmail.com)  

Learning objectives:  
1. To understand and learn the different phases of fat necrosis and its imaging correlates in all modalities.  
2. To know what to report in patients with breast implants and oncoplastic reconstructions.  
3. To learn the different appearances of breast cancer recurrence.

09:47  
Questions and discussion  

08:30 - 10:00  Room F1  
ESR meets Croatia, Slovakia and Slovenia  

Meets 9  
Interventional neuroradiology, cardiac MRI and EVAR: our experience  
Presiding:  
B. Brkljačić; Zagreb/HR  
D. Miletic; Rijeka/HR  
V. Lehotska; Bratislava/SK  
M. Marolt Music; Ljubljana/SI  

Meets 9-1  08:30  
Welcome from the ESR President  
B. Brkljačić; Zagreb/HR (bannis@brkljacic.com)  

Meets 9-2/Meets 9-3/Meets 9-4  08:32  
Introduction  
D. Miletic; Rijeka/HR (damir.miletic@medri.hr)  
V. Lehotska; Bratislava/SK (vierla.lehotska@oua.sk)  
M. Marolt Music; Ljubljana/SI (mmusic@onko.is)  

Session objectives:  
1. To learn about the interventional neuroradiology (INR) techniques and indications for aneurysm and stroke treatment, and to acknowledge the impact of mechanical thrombectomy.  
2. To demonstrate various applications of cardiac MRI including alternative methods in cardiac imaging.  
3. To learn about indications, technical aspects and clinical outcomes of endovascular aortic repair.

Meets 9-5  08:37  
Interventional neuroradiology: from coil to clot  
D. Ozretić; Zagreb/HR (david.ozretic@ckt-com.hr)  

Learning objectives:  
1. To present developments of INR in Croatia and its current place in clinical practice.  
2. To learn about the INR techniques and indications for aneurysm and stroke treatment.  
3. To acknowledge the impact of mechanical thrombectomy on the patients, and on the referring and performing physicians.

08:57  
Interlude: Promotional video about Croatia  

Meets 9-7  09:02  
Cardiac MRI and beyond  
Z. Berecova; Bratislava/SK (hapka78@hotmail.com)  

Learning objectives:  
1. To illustrate organisation and implementation of cardiac imaging, particularly cardiac MRI, in Slovakia.  
2. To demonstrate various applications of cardiac MRI.  
3. To learn more about the value of alternative methods in cardiac imaging.
Coffee & Talk (open forum) Session

C 26
Emboliisation techniques: tips and tricks

C 26-1 09:00
Chairperson's introduction
T. J. Kroenecke; Augsburg/DE

Session objectives:
1. To become familiar with the varied indications for embolisation.
2. To understand the basic embolisation techniques.
3. To be familiar with the different types of embolic agents.

C 26-2 09:04
Embolisation in trauma
S. Anthony; Oxford/UK

Learning objectives:
1. To understand the indications for embolisation in trauma.
2. To understand the selection of embolisation materials for small and large vessels.
3. To appreciate the outcomes of embolisation in trauma.

C 26-3 09:10
Embolisation for endoleaks post endovascular aneurysm repair (EVAR)
R. Morgan; London/UK

Learning objectives:
1. To appreciate the indications for endoleaks post EVAR.
2. To become familiar with the techniques for embolisation for endoleaks.
3. To appreciate the outcomes following embolisation.

C 26-4 09:16
Gonadal vein embolisation
A. Basile; Catania/IT (antodoc@yahoo.com)

Learning objectives:
1. To understand the indications for gonadal vein embolisation.
2. To appreciate the techniques for embolisation.
3. To become familiar with the outcomes of gonadal vein embolisation.

C 26-5 09:22
Oncology embolisation of liver tumours
P. Reimer; Karlsruhe/DE

Learning objectives:
1. To appreciate the indications for embolisation in liver tumours.
2. To understand the principles and techniques of embolisation in liver tumours.
3. To become familiar with the outcomes of embolisation for common lesions in liver tumours.

09:28
Open forum discussion

08:30 - 10:00
Da Vinci (Room D1)

Physics in Medical Imaging

RC 913
Radiation dose monitoring systems (RDMS): from commissioning to effective use

RC 913-1 08:30
Chairperson's introduction: RDMS: big data and tons of information
V. Tsiapaki; Nea Ionia/Greece (virginia@otenet.gr)

Session objectives:
1. To learn about the basic elements to consider when purchasing and commissioning an RDMS.
2. To be able to increase the effectiveness of using your RDMS.
3. To understand how to manage the situation of patients with recurrent exams.

RC 913-2 08:35
A. Supply and commissioning of an RDMS to meet all your needs
N. Fitousi; Leuven/BE (niki.fitousi@qaelum.com)

Learning objectives:
1. To understand how to select the right system for each hospital.
2. To learn how data should be validated after being collected.
3. To understand how derived quantities are calculated.

RC 913-3 08:58
B. How to manage the data and extract the relevant information
O. Rampado; Turin/IT (orampado@cittadellasalute.to.it)

Learning objectives:
1. To learn about methods of data extraction.
2. To be able to query the database with different filters.
3. To understand how to use this data to guide optimisation actions.

RC 913-4 09:21
C. Monitoring and analysis of patients with high cumulative risks
J. Vassileva; Vienna/AT

Learning objectives:
1. To learn about methods of data extraction.
2. To be able to query the database with different filters.
3. To understand how to use this data to guide optimisation actions.

09:44
Panel discussion: Are RDMS useful to share data between the main players in the optimisation process?

08:30 - 10:00
Darwin (Room D2)

Special Focus Session

SF 9d
Cardiac imaging to drive clinical decision making

SF 9d-1 08:30
Chairperson's introduction
L. Natale; Rome/IT (luigi.natale@unicatt.it)

Session objectives:
1. To become familiar with the inevitable role of advanced cardiac imaging for clinical decision making in ischaemic and structural heart disease.
2. To learn about the importance of outcome prediction for appropriate treatment decision making.
3. To understand the essential role of cardiac radiology in the management of cardiac patients.

SF 9d-2 08:35
Cardiac imaging as decision maker in coronary artery disease
M. Hrabak Paar; Zagreb/HR (majahrabak@gmail.com)

Learning objectives:
1. To understand the importance of myocardial assessment for treatment decision making in coronary artery disease.
2. To become familiar with imaging techniques to assess ischaemic myocardial disease.
3. To become familiar with imaging techniques to assess ischaemic myocardial disease.

SF 9d-3 08:59
Cardiac imaging as inevitable prerequisite to indicate minimal-invasive valvular repair
G. Feuchtner; Innsbruck/AT (Gudrun.Feuchtner@i-med.ac.at)

Learning objectives:
1. To understand the importance of myocardial assessment for treatment decision making in coronary artery disease.
2. To learn about the information required to indicate minimal-invasive valvular repair.
3. To understand the outcome of minimal-invasive valvular repair.
4. To understand the importance of cardiac imaging to identify the best time and the best technique for valvular repair.
SF 9d-4 09:23
Cardiac MRI to explore the grey zones of the athletes’ hearts
A. Kallifatidis; Thessaloniki/GR (alexandros.kallifatidis@yahoo.gr)

Learning objectives:
1. To understand the important difference between well-trained and hypertrophic myocardium.
2. To learn about the imaging techniques to differentiate between athlete’s heart and hypertrophic cardiomyopathy.
3. To become familiar with imaging derived biomarkers to predict prognosis and to indicate treatment of patients with myocardial hypertrophy

09:47
Panel discussion: Not without radiology! Could there be any treatment of ischemic or structural heart disease without advanced cardiac imaging anymore? And what does this mean for radiology service?

Professional Challenges Session

PC 9
Postgraduate and speciality training for radiographers

PC 9-1/PC 9-2 08:30
Chairpersons’ introduction
D. Akata; Ankara/TR (akataneden@gmail.com)
B. Kraus; Vienna/AT

Session objectives:
1. To consider the importance of further education and training beyond Bachelor level (EQF Level 6).
2. To discuss the importance of tailoring education and training for specialist areas.

PC 9-3 08:35
Postgraduate radiographer training across Europe
L. A. Rainford; Dublin/IE (louise.rainford@ucd.ie)

Learning objectives:
1. To discuss the current landscape of postgraduate training opportunities for radiographers across Europe.
2. To review the range of approaches to the purpose, design, and delivery of programmes.
3. To explore future opportunities to progress postgraduate radiography education.

PC 9-4 08:53
Ultrasound training requirements
R. A. M. Santos; Coimbra/PT (rjuvenmartinssantos@gmail.com)

Learning objectives:
1. To describe the range of approaches to postgraduate ultrasound education for radiographers.
2. To explore the key considerations for postgraduate ultrasound education.
3. To discuss the potential impact of high-quality ultrasound training programmes on service delivery.

PC 9-5 09:11
In-house cardiovascular interventional training
H. Faltot; Colmar/FR (herve.faltot@cardio-paramed.com)

Learning objectives:
1. To discuss the specific requirements and considerations for radiographers training in vascular interventional radiology and interventional cardiology.
2. To review the structure and impact of an in-house training programme.
3. To consider future opportunities to link with a formal postgraduate training programme.

PC 9-6 09:29
Paediatric radiography training in specialised and non-specialised centres
J. L. Portelli; Msida/MT (jonathan.portelli@um.edu.mt)

Learning objectives:
1. To review potential deficits in the education and training of radiographers in paediatrics.
2. To discuss the need for paediatric radiography to be considered as a specialty in radiography.
3. To consider potential solutions to improve the knowledge, skills, and competence of radiographers in paediatric imaging.

09:47
Panel discussion: Overcoming the challenges in postgraduate radiography education

08:30 - 10:00 Room G

Abdominal Viscera

RC 901
CT protocol selection for imaging of abdominal viscera
Moderator:
D. J. M. Tolan; Leeds/UK

RC 901-1 08:30
A. CT protocol of the liver
F. Caseiro Alves; Coimbra/PT (caseiroalves@gmail.com)

Learning objectives:
1. To learn about the indication of different CT protocols of the liver.
2. To understand the value of correct contrast media timing.
3. To recognise how to avoid the most common mistakes in a clinical setting.

RC 901-2 09:00
B. CT protocol of the pancreas
W. Schima; Vienna/AT (wolfgang.schima@khgh.at)

Learning objectives:
1. To be able to understand differences between standard and dedicated pancreas CT protocols.
2. To discuss the value of intravenous and oral contrast media for pancreas imaging.
3. To be aware of potential pitfalls in diagnosing pancreatic tumours or inflammatory lesions.

RC 901-3 09:30
C. CT protocol in trauma patients
A. G. Schreyer; Brandenburg a.d.H./DE (andreas.schreyer@mac.com)

Learning objectives:
1. To understand the particularities of CT protocols in trauma patients.
2. To be aware of the most common differential diagnoses in a trauma setting.
3. To learn to avoid mistakes and to deal with pitfalls in trauma patients.
Joint Session of the ESR and EFOMP

ESR/EFOMP
Photon counting detectors: system design and clinical applications of an emerging technology

Moderators:
V. Gershani; Skopje/MK
T. Sella; Jerusalem/IL

ESR/EFOMP-1 08:30
Photon counting CT: detector, prototypes and scan modes
M. Kachelrieß; Heidelberg/DE (marc.kachelriess@dkfz.de)

Learning objectives:
1. To learn which kind of detectors are currently available for performing photon counting.
2. To become familiar with the existing prototypes of photon counting CT and with their scan modes.
3. To understand the advantages of photon counting CT.

ESR/EFOMP-2 08:50
Pre-clinical and clinical applications of spectral photon-counting CT (SPCCT)
P. C. Douek; Lyons/FR (philippe.douek@chu-lyon.fr)

Learning objectives:
1. To learn the potentials of pre-clinical and clinical application of SPCC.
2. To appreciate the potential value of SPCCT in terms of spatial resolution, low-dose, and ultra-low-dose imaging.
3. To understand the potential of K-edge contrast agent imaging.

ESR/EFOMP-3 09:10
Physics evaluation and initial clinical results with the first full-field photon counting CT system based on silicon
M. Danielsson; Stockholm/SE (md@mi.physics.kth.se)

Learning objectives:
1. To learn about the recent advancements of photon-counting technology using silicon sensors.
2. To understand the differences between conventional sensors and alternative materials.
3. To appreciate the possibility offered by photon counting technology to perform quantitative material decomposition.

ESR/EFOMP-4 09:30
Digital mammography screening with photon counting technique: high diagnostic performance at low mean glandular dose
M. F. J. Ryan; Cork/IE (maxf.ryan@gmail.com)

Learning objectives:
1. To learn of the recent advancements of photon counting technology in digital mammography screening.
2. To appreciate the possibility offered by photon counting technology to perform digital mammography screening.
3. To understand the differences of conventional tomosynthesis using energy-integrating flat-panel detectors

09:50
Panel discussion: Which clinical applications are foreseeable for the photon counting technology?

E³ - Rising Stars Programme: Basic Session

BS 9b
Bone health and osteoporosis imaging
Moderator:
J.-P. Dillenseger; Strasbourg/FR

BS 9b-1 08:30
Osteoporosis: epidemiology, risk factors, and screening
K. Knapp; Exeter/UK (K.M.Knapp@exeter.ac.uk)

Learning objectives:
1. To become familiar with epidemiological considerations and risk factors.
2. To be aware of screening and imaging in osteoporosis patient follow-up.

BS 9b-2 08:55
Dual-energy x-ray absorptiometry and other modalities
R. M. Lopes; Vila Nova de Gaia/PT (rogeriolopes87@gmail.com)

Learning objectives:
1. To become familiar with the evolution of dual-energy x-ray absorptiometry (DXA) systems.
2. To understand the important role of the radiographer in DXA examinations: optimisation, reproducibility, and quality assurance.
3. To become aware of the importance of understanding the scan generated report information.

BS 9b-3 09:20
Opportunities for radiographers in bone health
E. McDermott; Dublin/IE (eilish.mcdermott@ucd.ie)

Learning objectives:
1. To explore potential opportunities for radiographers to increase their contribution in this field.
2. To be aware of the limitations with current osteoporosis imaging structures and roles.
3. To discuss the importance of education, training, and continuous professional development for radiographers specialising in this field.

09:45
Panel discussion: How can we further develop the radiographers’ role in osteoporosis imaging?

E³ - Advanced Course: How to Improve Your Expertise in Cardiothoracic Imaging

E³ 919
Low-dose thoracic CT: only screening for lung cancer?

E³ 919-1 08:30
Chairperson’s introduction
N. Howarth; Chêne-Bougeries/CH (nigel.howarth@grangettes.ch)

Session objectives:
1. To learn how to optimise CT protocols in the context of screening.
2. To be aware of the false positive risk.
3. To learn about the key features to report during screening.

E³ 919-2 08:36
A. Overview of lung cancer screening activities in European countries
S. Diederich; Düsseldorf/DE (Stefan.Diederich@vkkd-kliniken.de)

Learning objectives:
1. To be aware of the latest results of lung cancer screening trials.
2. To learn about the best technical standards for lung cancer screening.
3. To learn about the performance of artificial intelligence algorithms for lung cancer prediction.
Learning objectives:
1. To be aware of the common causes of solitary pulmonary nodules.
2. To learn about key radiological features suggesting a benign cause.
3. To learn about the methods allowing identifying malignant nodules.

E³ 919-4 09:32
C. Coronary artery disease assessment as part of a lung cancer screening programme: how to do it?
V. Cassar-Pullicino; Andria/IT (Victor.Pullicino@nhs.net)

Learning objectives:
1. To become familiar with the importance and predictive power of coronary calcium assessment.
2. To discuss the possibilities of combining coronary calcium assessment and lung cancer screening.
3. To learn about the practical implementation of coronary calcium assessment in the routine chest.

08:30 - 10:00
Room M 4

Musculoskeletal

RC 910
The old spine: challenges of imaging and treatment
Moderator:
M. Adriaensen; Heerlen/NL

RC 910-1 08:30
A. Degeneration of the old spine: relevance of findings and differential diagnosis
V. Cassar-Pullicino; Oswestry/UK (Victor.Pullicino@nhs.net)

Learning objectives:
1. To explain the pathophysiology of degenerative changes in the spine.
2. To describe the imaging findings of degenerative diseases of the spine.

RC 910-2 09:00
B. Fractures: bone fragility in the elderly, assessing osteoporosis and bone quality, and differential diagnosis
G. Guglielmi; Andria/IT

Learning objectives:
1. To explain the pathophysiology of osteoporosis in the spine.
2. To describe the imaging findings of spinal osteoporosis and its consequences.

RC 910-3 09:30
C. Interventional radiology: is there still a place for vertebroplasty and kypho-/stentoplasty
C. A. Binkert; Winterthur/CH (christoph.binkert@ksw.ch)

Learning objectives:
1. To explain the procedures of vertebroplasty and kyphoplasty.
2. To discuss the current role of vertebroplasty and kyphoplasty in spinal fractures.

08:30 - 10:00
Room M 5

E³ - Advanced Course: Hot Topics in GU Cancer

E³ 922
Whole-body imaging in metastatic urinary tract and prostate cancer

E³ 922-1 08:30
Chairperson's introduction
A. R. Larici; Rome/IT (anwar.larici@unicatt.it)

Learning objectives:
1. To explain the procedures of vertebroplasty and kyphoplasty.
2. To describe the imaging findings of degenerative diseases of the spine.
3. To learn about the practical implementation of coronary calcium assessment in the routine chest.

E³ 922-2 08:45
A. Whole-body MRI: technique and reporting system Met Rads P
F. Lecouvet; Brussels/BE (frederic.lecouvet@uclouvain.be)

Learning objectives:
1. To review patient selection for whole-body MRI in prostate cancer.
2. To learn state-of-the-art technical tips.
3. To learn a systematic reporting system.

E³ 922-3 09:10
B. Whole-body MRI and response assessment
N. Tunariu; Sutton, London/UK (nina.tunariu@icr.ac.uk)

Learning objectives:
1. To recognise active disease.
2. To learn pitfalls of interpretation.
3. To recognise the appearance of treatment response.

E³ 922-4 09:35
C. PET and PET/MRI in prostate cancer
I. A. Burger; Zurich/CH

Learning objectives:
1. To learn about the role of PET in prostate cancer.
2. To understand the advantages and limitations of PET and PET/MRI.
3. To become familiar with potential pitfalls through case review.

08:30 - 10:00
Tech Gate Auditorium

State of the Art Symposium

SA 9
Immunotherapy: what the radiologist needs to know

SA 9-1 08:30
Chairperson’s Introduction
J. Sosna; Jerusalem/IL (jacobs@hadassah.org.il)

Session objectives:
1. To describe the basic changes in the immune system in oncology.
2. To describe the means by which immunotherapy can be used.
3. To familiarise radiologists with the evaluation criteria.

SA 9-2 08:35
Immunotherapy: the basics for radiologists
T. Ng; London/UK (tony.ng@kcl.ac.uk)

Learning objectives:
1. To describe the basics of immunotherapy in oncology.
2. To describe the means by which immunotherapy can be used.
3. To present different immune modulation therapies in various neoplastic diseases.

SA 9-3 09:00
Assessment of tumour response
C. Suzuki; Stockholm/SE (chikako.suzuki@ki.se)

Learning objectives:
1. To describe the current practice of oncology evaluation in cross sectional imaging.
2. To present the difficulties of the common techniques.
3. To provide an overview of novel assessment techniques and their applicability.

SA 9-4 09:25
The immune response in interventional oncology: challenges and opportunities
N. Goldberg; Jerusalem/IL (sgoldber@bidmc.harvard.edu)

Learning objectives:
1. To describe the current practice of interventional oncology (IO).
2. To present applications in which the immune system can be modulated by IO.
3. To discuss challenges and opportunities of immune system modulation in IO.

09:50
Panel discussion: Role of radiologists in immunotherapy
10:30 - 11:00 Postgraduate Educational Programme

**Plenary Lecture**

PL 2
Presiding:
B. Brkljačić; Zagreb/HR

PL 2-1 10:30
Digitalisation: the journey to a more human healthcare
B. Montag; Erlangen/DE

12:45 - 13:45 Coffee & Talk (open forum) Session
Organised by EuroSafe Imaging

**C 16**
Dose management (DM): requirements, promises and reality

C 16-1 12:45
Chairperson’s introduction
R. W. Loose; Nuremberg, DE/DE (rloose@mail.de)

Session objectives:
1. To stress the impact of DM on quality assurance and optimisation.
2. To demonstrate how DM can help to implement the requirements of the European basic safety standards directive (EU-BSS).
3. To discuss different complexity levels of DM.

C 16-2 12:50
DICOM image and radiation dose structured report (RDSR) dose parameters: what do we have, what do we need?
E. Vaño; Madrid/ES (eliseov@med.ucm.es)

Learning objectives:
1. To appreciate the relevance of the dosimetric information available during and at the end of interventional procedures to help in optimisation.
2. To learn that additional details on technical parameters are available in the DICOM RDSR, helping to audit individual procedures.
3. To understand how the information contained in the RDSR for radiation events may be helpful in optimising some individual procedures.

C 16-3 13:00
Workflow of dose management in the context of PACS, RIS, HIS, IHE
P. Mildenberger; Mainz/DE (mildenbe@uni-mainz.de)

Learning objectives:
1. To demonstrate the available tools for DM in hospital information systems/radiology information systems/picture archiving and communication systems (HIS-RIS-PACS).
2. To explain the health care enterprise (IHE) concept for DM.
3. To discuss the potential of new developments for DM.

C 16-4 13:10
Requirements on dose management system in terms of dose storage, processing, reporting, tracking, quality assurance and the directive EU-BSS 2013/59
S. T. Schindera; Riehen/CH (sebastian.schindera@ksa.ch)

Learning objectives:
1. To demonstrate examples of how to use dose management software for quality improvement.
2. To demonstrate the pitfalls of using dose management software.
3. To discuss future applications for dose management systems.

C 16-5 13:20
Experiences in practice between vendor promises and clinical reality
V. Tsapaki; Nea Ionia/GR (virginia@otenet.gr)

Learning objectives:
1. To demonstrate the real practice of DM procurement to installation.
2. To show the possible challenges during the procedure of DM purchase and installation.
3. To discuss necessary implementation steps.

13:30 Open forum discussion
12:45 - 13:45 Coffee & Talk 3

Coffee & Talk (open forum) Session
Organised by EIBIR

C 27
Artificial intelligence (AI) and the future of imaging: European funding prospects

C 27-1 12:45
Chairperson’s introduction
G. P. Krestin; Rotterdam/NL

Session objectives:
1. To learn about the mission of the European Institute for Biomedical Imaging Research (EIBIR).
2. To become familiar with the European research landscape and EIBIR support.
3. To learn about the need for AI in imaging research.

C 27-2 12:55
The importance of artificial intelligence in imaging research
W. J. Niessen; Rotterdam/NL (w.j.niessen@erasmusmc.nl)

Learning objectives:
1. To learn about AI and its role in imaging research.
2. To appreciate the importance of AI in imaging research.
3. To learn about EIBIR initiatives on AI.

C 27-3 13:05
Deep learning in imaging and cancer care
G. Langs; Vienna/AT

Learning objectives:
1. To learn about applications of deep learning.
2. To understand how deep learning is used in imaging and cancer care.

C 27-4 13:15
Applying artificial intelligence for biomarker discovery
A. Alberich-Bayarri; Valencia/ES (angel@quibim.com)

Learning objectives:
1. To learn about applications of AI.
2. To understand how AI can be used for biomarker discovery.

C 27-5 13:25
European funding and support services for AI and imaging research
P. Zolda; Vienna/AT

Learning objectives:
1. To learn about the types of funding available for AI and biomedical imaging research.
2. To learn about the support EIBIR offers imaging researchers.
3. To appreciate EIBIR’s effectiveness in helping researchers secure funding.

13:35
Open forum discussion

12:45 - 13:45 Room M 5

EDiR Session

EDiR 3
The Essential Guide by Springer and other new tools to prepare the examination

Moderator:
L. Oleaga Zufiria; Barcelona/ES

EDiR 3-1 12:45
The Essential Guide publication by Springer
L. Oleaga Zufiria; Barcelona/ES (lauraoleaga@gmail.com)

Learning objectives:
1. To present the new e-book for EDiR preparation.
2. To present a guide on how to use the book.
3. To present the setup of the chapters of the book.

EDiR 3-2 12:57
EDiR App: self-assessment
W. van Lankeren; Rotterdam/NL (w.vanlankeren@erasmusmc.nl)

Learning objectives:
1. To present the self-assessment cases available in the app.
2. To show the utility of self-assessment for EDiR preparation.
3. To demonstrate the importance of using new learning approaches.

EDiR 3-3 13:09
EDiR App: structured reporting
F. M. Saez Garmendia; Bilbao/ES (fersaez@yahoo.com)

Learning objectives:
1. To become familiar with the new CORE cases with structured reports available in the EDiR app.
2. To help candidates facing the CORE exam to use structured reports.
3. To show the advantages of using structured reports when preparing for the CORE examination.

EDiR 3-4 13:21
EDiR blog
W. van Lankeren; Rotterdam/NL

Learning objectives:
1. To present the recent blogs incorporated in the app.
2. To show the process of blog preparation.
3. To show examples of flash and long cases.

13:33
Discussion

14:00 - 15:30 Room N

Breast

RC 1102
State of the art and recent developments in breast ultrasound

Moderator:
A. Athanasiou; Athens/GR

RC 1102-1 14:00
A. Breast ultrasound: tell me the value of coloured images
C. S. Baileyquier; Villejuif/FR

Learning objectives:
1. To learn the correct setting and interpretation of Doppler and elastography.
2. To realise the added value in lesion assessment.
3. To know the roll in follow-up and therapy monitoring.
RC 1102-2 14:30
B. Automated breast ultrasound (ABUS): the right add-on in screening dense breast
A. Vourtsis; Athens/GR (athanavourtsis@yahoo.gr)

Learning objectives:
1. To learn how to perform, assess image quality, interpret, and recognise artefacts.
2. To review the current literature of ABUS in women with dense breasts.
3. To understand the value of 3D multiplanar images and ABUS workflow implementation compared to handheld US (HHUS).

RC 1102-3 15:00
C. Can artificial intelligence (AI) be helpful in the US-screening setting?
P. Kapetas; Vienna/AT (panagiotis.kapetas@meduniwien.ac.at)

Learning objectives:
1. To understand the current status of the use of AI in breasts US.
2. To realise the limitations in the implementation of US in screening and of AI in US examinations.
3. To explore potential future applications.

14:00 - 15:30 Room O

Children in Focus

IF 11
Against all odds: bringing health care to children in low-resource areas

IF 11-1 14:00
Chairperson’s introduction
K. Rosendahl; Bergen/NO (karen.rosendahl@unn.no)

IF 11-2 14:06
Child health in the Sustainable Development Goals (SDG) era
A. Banerje; Geneva/CH (banerjea@who.int)

Learning objectives:
1. To recognise the changes in mortality and morbidity patterns.
2. To understand the new directions in child health.
3. To discuss the life course approach to child health.

IF 11-3 14:26
The challenges of health care delivery to refugee and migrant children
G. Bernini; Milan/IT (gaela.bernini@bracco.com)

Learning objectives:
1. To learn the current status of health care delivery in this vulnerable population.
2. To appreciate the acute impact on the child.
3. To understand the late effects to these children and impact on their future lives.

IF 11-4 14:46
ESPR Outreach task force: what is our best way to help?
J. Kasznia-Brown; Bristol/UK (joanna.brown@tst.nhs.uk)

Learning objectives:
1. To learn about the aims of the ESPR outreach task force.
2. To illustrate with details of ongoing projects.
3. To discuss the best way for paediatric radiologists to influence health care for children in low-resource areas.

15:06
Panel discussion: How can we efficiently reach out to children in low resource areas to develop self-sustainable aid-programs?
14:00 - 15:30 Darwin (Room D2)

Emergency Imaging

**RC 1117**

*Complications of endovascular interventions*

Moderator:
M. C. Firetto; Milan/IT

**RC 1117-1 14:00**

A. *Complications in thoracic and abdominal endovascular aneurysm procedures*
R. A. Morgan; London/UK (robert.morgan@stgeorges.nhs.uk)

**Learning objectives:**
1. To become familiar with the most common endovascular thoracic and abdominal procedures.
2. To understand the mechanism of the possible risks during endovascular procedures.
3. To recognise these acute complications in different imaging modalities.

**RC 1117-2 14:30**

B. *Imaging and management of complication of peripheral arterial revascularisation*
M. J. Lee; Dublin/IE (mlee@rcsi.ie)

**Learning objectives:**
1. To become familiar with the possible complication of endovascular treatments.
2. To recognise findings of complications in different imaging modalities.
3. To learn about the management of common complications.

**RC 1117-3 15:00**

C. *Imaging appearance of typical complications after liver embolisation: what is normal and what needs to be reported*
T. J. Kroencke; Augsburg/DE

**Learning objectives:**
1. To become familiar with the possible endovascular typical complications and normal findings.
2. To become familiar with the interventional radiologist’s needs imaging to plan treatment after complications.
3. To recognise when to call surgical colleagues.

14:00 - 15:30 Descartes (Room D3)

**EFOMP Workshop**

**EF 11**

*CT protocol management and optimisation: management (part A)*

Moderator:
M. Brambilla; Novara/IT

**EF 12-1 14:00**

Chairperson’s introduction
K. N. Bolstad; Bergen/NO

**Session objectives:**
1. To become familiar with the concept of CT protocol management systems (CT-PMS).
2. To discuss the opportunities provided by the standardisation of CT protocols in the optimisation process.
3. To understand how dose tracking systems can be used in quality assurance of CT-PMS.

14:00 - 15:30 Room D2

**EF 11-2 14:05**

*Developing a CT protocol management system (CT-PMS)*
J. Sjöberg; Stockholm/SE (johana.sjoberg@ssl.se)

**Learning objectives:**
1. To learn how to set up a review committee and the role of each member (radiologist, medical physicist, radiographer).
2. To understand why implementing a CT-PMS is a prerequisite for optimisation.
3. To become familiar with existing CT-PMS systems.

**EF 11-3 14:35**

*A general framework for monitoring CT acquisition workflow*
T. Szczykutowicz; Madison, WI, WI/US (tszczykutowicz@uwhealth.org)

**Learning objectives:**
1. To learn how to maintain consistency in CT acquisition protocols throughout a large radiology department.
2. To understand how technologist quality can be monitored using informatics tools.
3. To discuss the current state of informatics solutions to facilitate protocols management in radiology.

**EF 11-4 15:05**

*Dose tracking systems as a tool for CT-PMS*
F. Zanca; Leuven/BE (federica.zanca@palindromo.consulting)

**Learning objectives:**
1. To understand how dose management systems can be used in quality assurance of CT-PMS.
2. To become familiar with applications of this method through worked examples.
3. To discuss the application in multicentre studies.

14:00 - 15:30 Room G

**E³ - ECR Master Class (Head and Neck)**

**E³ 1126**

*Improving staging and treatment outcomes in head and neck cancer*

**E³ 1126-1 14:00**

Chairperson’s introduction
M. Horta; Lisbon/PT (mariana_horta@hotmail.com)

**Session objectives:**
1. To learn about new developments in MRI for early tumour detection.
2. To understand the changing role of imaging with human papillomavirus (HPV) related disease.
3. To learn how to improve detection of recurrence and prediction of outcome.

**E³ 1126-2 14:05**

*A nasopharynx: early tumour detection and imaging markers for treatment response*
A. D. King; Hong Kong/CN

**Learning objectives:**
1. To learn how best to detect early nasopharyngeal carcinoma (NPC).
2. To understand how to assess tumour response.
3. To highlight how imaging response may alter the treatment pathway.

**EF 11-2 14:05**

*A nasopharynx: early tumour detection and imaging markers for treatment response*
A. D. King; Hong Kong/CN

**Learning objectives:**
1. To learn how best to detect early nasopharyngeal carcinoma (NPC).
2. To understand how to assess tumour response.
3. To highlight how imaging response may alter the treatment pathway.

**E³ 1126-3 14:28**

*B early glottic carcinoma: new insights relevant for tumour staging and patient management*
D. Farina; Brescia/IT (davide.farina@unibs.it)

**Learning objectives:**
1. To become acquainted with treatment options for early glottic cancer.
2. To understand the best imaging techniques for assessing early glottic cancer.
3. To learn which imaging features affect patient management.
**E³ 1126-4 14:51**
C. Oropharynx: risk stratification related to HPV association
A. Trojanowska; Lublin/PL

*Learning objectives:*
1. To understand the role of HPV in treatment and outcome of oropharyngeal cancer.
2. To learn about the impact of HPV on tumour staging.
3. To reflect on imaging features differentiating HPV+ from HPV-.

15:14
Panel discussion: Will new developments in imaging alter staging and treatment in head and neck oncology?

**14:00 - 15:30 Room M 2**
**E³ - Advanced Course: Hot Topics in Emergency Radiology**

**E³ 1118**

**Dual-energy and subtraction CT in emergency radiology**

**E³ 1118-1 14:00**
Chairperson’s introduction
S. Wirth; Munich/DE (wirth.online@googlemail.com)

*Session objectives:*
1. To become familiar with dual-energy CT techniques and reconstruction possibilities.
2. To understand the clinical applications and added value of dual-energy CT in emergency pathologies.
3. To learn about the anatomical and functional information of different organ systems provided by dual-energy CT.
4. To become familiar with the impact of dual-energy CT on radiation dose and required iodine volume.
5. To become familiar with the possible future applications of dual-energy CT in combination with deep learning techniques.

**E³ 1118-2 14:06**
A. Blood and bleeding
M. Brink; Nijmegen/NL (Mobrink@hotmail.com)

*Learning objectives:*
1. To understand the advantages of dual-energy CT in neuro, aortic, and PE diagnoses.
2. To understand how virtual non-contrast images might replace the precontrast phase.
3. To highlight the superiority of dual-energy CT in the demonstration of enhancement.

**E³ 1118-3 14:34**
B. The usual suspects: urogenital and musculoskeletal
R. Guggenberger; Zurich/CH (roman.guggenberger@usz.ch)

*Learning objectives:*
1. To learn about the differentiation of stones.
2. To understand the advantages of dual-energy CT in recognising subtle/occult fractures.
3. To highlight the role of dual-energy CT in reducing metal-related artefacts in musculoskeletal imaging.

**E³ 1118-4 15:02**
C. Dual-energy CT in acute emergency conditions in the abdomen and pelvis
J. Sosna; Jerusalem/IL (jacobs@hadassah.org.il)

*Learning objectives:*
1. To describe dual-energy CT techniques.
2. To provide an overview of dual-energy tools used in the evaluation of ED patients.
3. To present the role of dual-energy CT in emergency situations.

**16:00 - 17:30 Room C**
**Breast**

**RC 1202**

**Evidence-based breast MRI: when, how and why**

**RC 1202-1 16:00**
Chairperson’s introduction
F. Sardanelli; Milan/IT

*Session objectives:*
1. To understand the contribution of MRI to preoperative staging and the context within which it should be recommended.
2. To understand the importance of the multiparametric protocol and robust image quality.
3. To recognise the steps required to move to abbreviated MRI for high-risk screening.

**RC 1202-2 16:05**
A. Preoperative staging with MRI: fresh data on an old mantra
R. M. Trimboli; San Donato Milanese/IT (trimboli.rm@gmail.com)

*Learning objectives:*
1. To learn about the evidence for and against the use of MRI in preoperative staging.
2. To understand the background, design, and early results of the MIPA trial and recent literature.
3. To be able to explain the role of preoperative MRI during multidisciplinary tumour board meetings.

**RC 1202-3 16:30**
B. Abbreviated protocols: are we ready?
C. K. Kuhl; Aachen/DE (ckuhl@ukaachen.de)

*Learning objectives:*
1. To learn about the evidence for abbreviated MRI and the comparison with standard protocols.
2. To understand the different protocols for abbreviated MRI and the merits of each sequence used.
3. To appreciate the advantages and limitations for abbreviated MRI.

**RC 1202-4 16:55**
C. How can we make use of MRI biomarkers in clinical practice?
L. Martincich; Candiolo/IT

*Learning objectives:*
1. To learn about the different biomarkers that are available and the evidence for using them in patients with breast cancer.
2. To understand in which clinical settings biomarkers might be of value now and in the future.
3. To recognise the limits for a widespread application.

17:20
Panel discussion: Why is the adoption of MRI in clinical practice still so difficult?
Coffee & Talk (open forum) Session
Organised by ESOR

C 6
The European Diploma in Radiology (EDiR) as an instrument to develop a professional career

C 6-1 16:00
Chairperson's introduction
L. Oleaga Zufiria; Barcelona/ES (lauraoleaga@gmail.com)

Session objectives:
1. To present EDiR: the essential guide.
2. To describe the new EDiR innovative tools to prepare the exam.
3. To describe the advantages of being an EDiR holder.
4. To present quiz examination cases (MRQs, short cases, CORE cases).

C 6-2 16:05
How to succeed in the EDiR examination: presentation of “EDiR: the essential guide” and new innovative tools to prepare for the EDiR examination
L. Oleaga Zufiria; Barcelona/ES (lauraoleaga@gmail.com)

Learning objectives:
1. To present the script for reading the e-book.
2. To present the setup of the chapters following the scheme of the three sections in which EDiR is organised.
3. To demonstrate the links to ESR online educational content.
4. To show the self-assessment cases available in the app.
5. To show the new CORE cases with structured report.
6. To present the recent blogs incorporated in the app.

C 6-3 16:20
Why EDiR certification matters
A. Soler Perromat; Barcelona/ES (alejandro.solerp@gmail.com)

Learning objectives:
1. To describe the experience of taking the exam.
2. To explain the reasons why it is worth taking the exam.
3. To understand the benefits of having the European Diploma in Radiology.

C 6-4 16:30
Interactive quiz
W. van Lankeren; Rotterdam/NL (w.vanlankeren@erasmusmc.nl)

Learning objectives:
1. To familiarise the EDiR candidate with the way of testing.
2. To more effectively prepare for the EDiR exam after interactive participation in the quiz.
3. To practice the skills of how to tackle and address the questions in the exam.

16:50
Open forum discussion

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EU 12
Dose reduction in quantitative single- and multi-energy computed tomography

EU 12-1/EU 12-2 16:00
Chairpersons’ Introduction
S. T. Schindera; Riehen/CH (sebastian.schindera@ksa.ch)
W. Stiller; Heidelberg/DE

Session objectives:
1. To raise awareness of available technology and methods for quantitative computed tomography imaging.
2. To become familiar with clinical applications of single- and multi-energy CT for the acquisition of quantitative imaging biomarkers.
3. To learn about the potential for dose reduction in the field of quantitative CT and its effects on analyses results.

EU 12-3 16:05
Dual- and multi-energy CT: physical background and concepts
P. B. Noel; Philadelphia, PA/US (peternoel@uphs.upenn.edu)

Learning objectives:
1. To introduce the basic concept of spectral imaging.
2. To illustrate the technical implementations of dual- and multi-energy CT.
3. To demonstrate dose reduction potentials in spectral CT.

EU 12-4 16:20
Spectral photon-counting CT: technical concepts for quantitative multi-energy imaging and dose reduction
L. Boussel; Lyons/FR

Learning objectives:
1. To become familiar with photon-counting CT technology and its differences to conventional CT detectors.
2. To understand the technical concepts of photon counting for quantitative multi-energy imaging.
3. To learn about the potential of photon-counting technology for enabling future dose reduction in CT.

EU 12-5 16:35
Single dual-energy iodine maps with organ-specific acquisition timing as a quantitative imaging biomarker replacing abdominal CT perfusion
S. Skornitzke; Heidelberg/DE (Stephan.Skornitzke@med.uni-heidelberg.de)

Learning objectives:
1. To learn about the potential of dual-energy CT for iodine quantification in the abdomen as a quantitative imaging biomarker.
2. To understand the link between conventional dynamic CT perfusion and quantitative dual-energy iodine maps.
3. To raise awareness of dual-energy iodine maps with organ-specific acquisition times as a dose-reduced alternative to abdominal CT perfusion.

EU 12-6 16:50
Effects of dose reduction on quantitative analyses of chest CT
J. M. Goo; Seoul/KR (jmgoo@plaza.snu.ac.kr)

Learning objectives:
1. To understand the dose reduction approaches in chest CT.
2. To review the quantitative analyses used in chest CT.
3. To learn about the impact of dose reduction approaches on quantitative analyses.

EU 12-7 17:05
Perfusion CT as quantitative imaging biomarker in acute ischaemic stroke and brain trauma: what about the dose?
I. Shelef; Beer-Sheva/IL (shelef@bgu.ac.il)

Learning objectives:
1. To become familiar with perfusion CT as a quantitative imaging biomarker in acute ischemic stroke and brain trauma.
2. To learn about the potential for, and limitations of, dose reduction in neurologic perfusion CT imaging.
3. To understand the use and limitations of perfusion CT for the assessment of acute ischemic stroke and brain trauma.
Panel discussion: Which role does quantitative single- and multi-energy computed tomography play in daily practice, and is it compatible with dose reduction?

Children in Focus

**IF 12**
The child as an individual: whose life is it anyway?

**IF 12-1** 16:00
Chairperson's introduction
B. Said; London/UK (Bella.Said@gosh.nhs.uk)

**IF 12-2** 16:05
Use of restraints in children: what is acceptable, when and why?
J. Dahlberg; Oslo/NO (jorged@medisin.uio.no)

**Learning objectives:**
1. To learn about the legal aspects/laws/UN/European children's convention.
2. To describe ethical and judicial dilemmas regarding restraint.
3. To discuss who defines what is to the "benefit to the child".

**IF 12-3** 16:25
Parental and cultural autonomy: can carers make any decisions on behalf of their child?
E. Verhagen; Groningen/NL (aa.everhagen@umcg.nl)

**Learning objectives:**
1. To discuss who owns the child's data and the ethical dilemmas of sharing children's medical stories in magazines, TV programmes, social media etc.
2. To learn about the value of children's data for medical research.
3. To what extent can parents decide what is best for their child? Using examples including vaccination, alternative therapies, and circumcision/genital mutilation etc.

**IF 12-4** 16:45
Paediatric radiology: is there really any point?
Ø. E. Olsen; London/UK (oystein.olsen@googlemail.com)

**Learning objectives:**
1. To appreciate the evidence available for how a child-friendly/age-adjusted environment increases the diagnostic quality of radiological examinations.
2. To learn the importance of not treating children as small adults (results from adult research not applicable for children, normal variants, different diseases, age-adjusted care).
3. To discuss variations in the practice and availability of specialised paediatric radiology practice across Europe.

Panel discussion: Who defines what is best for the child?

**IF 12-6/IF 12-7** 17:25
Closing remarks
L.-S. O. Müller; Oslo/NO (lilmul@ous-hf.no)
C. Owens; Doha/QA (owens.catherine.5@gmail.com)

**E³ - ECR Master Class (Oncologic Imaging)**

**E³ 1226**
Whole-body MRI (and PET/MRI)

**Moderator:**
D. Prezzi; London/UK

**E³ 1226-1** 16:00
A. Metastatic bone prostate cancer
F. Lecouvet; Brussels/BE (frederic.lecouvet@uclouvain.be)

**Learning objectives:**
1. To define imaging strategies in newly diagnosed, recurrent, and advanced disease.
2. To become able to use MET-RADS-P guidelines for whole-body MRI acquisition, reading, and response assessment.
3. To illustrate recent therapeutic advances: i.e. oligometastatic disease and precision medicine approaches.

**E³ 1226-2** 16:30
B. Multiple myeloma
L. A. Moulopoulos; Athens/GR (lmoulop@med.uoa.gr)

**Learning objectives:**
1. To become aware of the value of whole-body MRI in myeloma.
2. To understand current imaging protocols.
3. To learn about its roles: detect, monitor, and provide prognostic information.

**E³ 1226-3** 17:00
C. Lymphoma
M. E. Mayerhöfer; Vienna/AT (marius.mayerhoefer@meduniwien.ac.at)

**Learning objectives:**
1. To introduce the role of whole-body MRI and PET/MRI for imaging lymphoma subtypes.
2. To know its value for detection, assessment of response, and prognosis.
3. To understand the current advantages and limitations of whole-body MRI and PET/MRI.

**E³ - Advanced Course: Interactive Teaching Session for Young (and not so Young) Radiologists**

**E³ 1221a**
Genitourinary radiology for the general radiologist

**E³ 1221a-1** 16:00
A. Cystic pelvic masses: differential diagnosis and management
O. Nikolic; Novi Sad/RS (nikolc.olivera@gmail.com)

**Learning objectives:**
1. To learn the imaging characteristics of the different entities.
2. To become familiar with the practical workflow in everyday clinical practice.

**E³ 1221a-2** 16:45
B. Gynaecological emergencies
M. Weston; Leeds/UK (michael.weston2@nhs.net)

**Learning objectives:**
1. To become familiar with the differential diagnosis.
2. To identify the key imaging findings.
**E³ - Advanced Course: Interactive Teaching Session for Young (and not so Young) Radiologists**

**E³ 1221b**

**Gastrointestinal radiology**

**E³ 1221b-1** 16:00

*A. Inflammatory bowel disease*

J. Rimola; Barcelona/ES (jrimola@clinic.cat)

**Learning objectives:**
1. To review the spectrum of imaging findings in inflammatory bowel disease, mainly in Crohn's disease.
2. To learn about the management options.

**E³ 1221b-2** 16:45

*B. Rectal cancer staging: key findings*

I. Blazic; Belgrade/RS (ivanablazic@yahoo.com)

**Learning objectives:**
1. To understand the imaging technique.
2. To identify the key imaging findings.

**E³ - Rising Stars Programme: Basic Session**

**BS 12**

**Vascular: US and vascular disease**

Moderator:
J. Bremerich; Basel/CH

**BS 12-1** 16:00

*Abdominal aorta*

D.-A. A. Clevert; Munich/DE (Dirk.Clevert@med.uni-muenchen.de)

**Learning objectives:**
1. To learn how to perform the examination and its role in diagnostic assessment.
2. To learn about US findings in abdominal aortic aneurysm (AAA) treatment planning and post-treatment evaluation.
3. To appreciate the role of contrast enhanced ultrasound (CEUS) and technological innovations in routine practice.

**BS 12-2** 16:30

*Upper and lower limb: arterial*

E. Divjak; Zagreb/HR

**BS 12-3** 17:00

*Lower limb: venous*

S. M. Dudea; Cluj/RO (sdudea1@gmail.com)

**Learning objectives:**
1. To understand how to perform the examination and its role in diagnostic assessment.
2. To understand US findings for diagnostic and follow-up.
3. To underline tips and tricks to start your activity.

**C 28**

**Value in radiology: in the eye of the beholder**

**C 28-1** 16:00

*Chairperson's introduction*

M. Fuchsjäger; Graz/AT (michael.fuchsjager@medunigraz.at)

**Session objectives:**
1. To understand the concept of value in radiology.
2. To learn about the challenges of developing a concept of value-based radiology.
3. To learn about experiences with value-based approaches in practice.

**C 28-2** 16:10

*Artificial intelligence and value-based health care*

P. Algra; Heiloo/NL

**Learning objectives:**
1. To learn about the Value-based Healthcare Centre’s implementation of value-based health care (VBHC).
2. To understand the practical challenges of organising health care delivery based on value.
3. To understand the administrative, managerial, and financial processes of VBHC in practice.

**C 28-3** 16:15

*What do patients value?*

C. Justich; Vienna/AT (cjustich@me.com)

**Learning objectives:**
1. To learn about how to mutually interact with one another in a way that is optimised for both sides.
2. To understand what matters most to patients.
3. To appreciate the need to get prepared for further steps.

**C 28-4** 16:20

*Results of the ESR patient survey on value-based radiology (VBR)*

M. Fuchsjäger; Graz/AT (michael.fuchsjager@medunigraz.at)

**Learning objectives:**
1. To learn about the results of the ESR value-based radiology patient survey.
2. To appreciate how value is perceived by radiology patients.
3. To understand which factors determine quality and value for patients in radiology.

**C 28-5** 16:25

*Value-based pay models for radiology*

V. M. Rao; Philadelphia/US

**Learning objectives:**
1. To learn about the status quo of value-based pay and reimbursement models.
2. To understand the challenges in monetising “value”.
3. To learn about the differences between value-based and volume-based pay models.

**C 28-6** 16:30

*Value of radiology: the Canadian perspective*

E. Lee; Vancouver/CA (elee888@gmail.com)

**Learning objectives:**
1. To become familiar with the challenges facing health care delivery in Canada.
2. To understand the value of radiology from a quantitative perspective within the Canadian health care system.
3. To become familiar with the key stakeholders and target audiences that can influence radiology practice and improved patient care.
C 28-7  16:35
VBR concepts around the globe: similarities and contrasts
J. A. Brink; Boston, MA/US

Learning objectives:
1. To understand the different approaches to VBR internationally.
2. To learn about the differences in practical implementations of VBR concepts.
3. To understand the importance of professional societies in promoting best (value-based) practices.

C 28-8  16:40
Joint paper on value-based radiology
A. Brady; Cork/IE (adrianbrady@me.com)

Learning objectives:
1. To explain the origin and purpose of the multi-society paper on value-based radiology.
2. To highlight the commonalities and differences between countries relating to value in medicine.
3. To understand how the value contributed to health care by radiology can be objectified and quantified.

16:45
Open forum discussion: International perspectives on value in radiology

16:00 - 17:30 Darwin (Room D2)

EFRS meets Slovenia

Meet 12
A guided tour of Slovenia through the modalities

Presiding:
J. McNulty; Dublin/IE
U. Gačnik; Ljubljana/SI

Meet 12-1  16:00
Session introduction
J. McNulty; Dublin/IE (jonathan.mcnullty@ucd.ie)

Meet 12-2  16:05
Introduction: Radiographers in Slovenia
U. Gačnik; Ljubljana/SI (uros.gacnik@gmail.com)

Session objectives:
1. To introduce the radiography profession in Slovenia and the priorities of the National Society.
2. To introduce Slovenia as a country, Slovenian life, and culture.

Meet 12-3  16:10
The radiographers’ role in hybrid imaging
S. Rep; Ljubljana, SLO/SI

Learning objectives:
1. To understand the advantages and disadvantages of hybrid imaging.
2. To understand the importance of protocol optimisation and the important role of the radiographer.
3. To become familiar with the impact of quality control processes on image and data quality.

Meet 12-4  16:26
The effective use of negative contrast agents in magnetic resonance cholangiopancreatography (MRCP)
A. Breznik; Celje/SI (abreznik@gmail.com)

Learning objectives:
1. To become familiar with different types of negative contrast agents in MRCP imaging.
2. To acknowledge the impact of using different negative contrast agents.
3. To learn about the possibilities of protocol optimisation in MRCP imaging.

16:42
Interlude: I feel Slovenia

Meet 12-6  16:47
Protocol designing and optimisation in cardiac CT
J. Mišič; Ljubljana/SI (jure.misic@gmail.com)

Learning objectives:
1. To become familiar with different cardiac CT scan modes.
2. To learn about the possibilities of protocol optimisation.
3. To understand the challenges in cardiac CT examination.

Meet 12-7  17:03
Quality assurance in mammography: evaluation of radiographs
E. Alukić; Ljubljana/SI

Learning objectives:
1. To present evaluation criteria for mammographic images from the Slovenian screening programme.
2. To review the most common positioning errors from across the Slovenian screening programme.
3. To address the challenges of the manual assessment of mammograms.

17:19
Panel discussion
EFOMP Workshop

**EF 12**
CT protocol management and optimisation: optimisation (part B)

**Moderator:**
A. Triani; Udine/IT

**EF 12-2 16:00**
Chairperson’s introduction
M. Kortesniemi; HUS/Pit (mika.kortesniemi@hus.fi)

**Session objectives:**
1. To understand why standardisation of acquisition and reconstruction protocols is needed in quantitative radiology.
2. To provide an overview of CT acquisition and reconstruction protocols based on clinical indications (low-dose and high-dose protocols as examples).
3. To understand the need for benchmarking optimised protocols in everyday clinical practice.

**EF 12-2 16:05**
Optimised acquisition and reconstruction protocols: chest CT
E. Castellano; London/UK (elly.castellano@rmh.nhs.uk)

**Learning objectives:**
1. To give an overview of optimised protocols.
2. To understand issues related to the technical implementation of these protocols.
3. To discuss specific issues related to different scanners.

**EF 12-3 16:30**
Optimised acquisition and reconstruction protocols: cardiac CT
M. Kalra; Boston, MA/US (MKALRA@mgh.harvard.edu)

**Learning objectives:**
1. To give an overview of optimised protocols.
2. To understand issues related to the technical implementation of these protocols.
3. To discuss specific issues related to different scanners.

**EF 12-4 17:00**
Optimised acquisition and reconstruction protocols: abdomen and CT angiography
N. Buls; Brussels/BE (nico.buls@uzbrussel.be)

**Learning objectives:**
1. To give an overview of optimised protocols.
2. To understand issues related to the technical implementation of these protocols.
3. To discuss specific issues related to the role of iodine volume, concentration, and flow rate.

**16:00 - 17:30 Room G**

**Multidisciplinary Session**

**MS 12a**
Revisiting screening for developmental dysplasia of the hip (DDH)

**MS 12a-1 16:00**
Chairperson’s introduction
K. Rosendahl; Bergen/NO (karen.rosendahl@unn.no)

**Session objectives:**
1. To explain the rationale behind US screening for developmental dysplasia of the hip.
2. To explain how a nation-wide screening programme could be established for developmental dysplasia of the hip.
3. To describe the current challenges and opportunities in the screening for developmental dysplasia of the hip.

**Learning objectives:**
1. To understand the need for a standardised approach to US screening for DDH
K. G. Chloupakis; Iraklion/GR (kgchloupakis@outlook.com)

**Panel discussion: How can we improve early detection of developmental dysplasia of the hip?**

**MS 12a-2 16:15**
The need for a standardised approach to US screening for DDH
K. G. Chloupakis; Iraklion/GR (kgchloupakis@outlook.com)

**Learning objectives:**
1. To explain the rationale behind US screening for developmental dysplasia of the hip.
2. To describe the method for US screening for developmental dysplasia of the hip.

**MS 12a-3 16:35**
A paediatric orthopaedist’s perspective on screening DDH: Swiss-Mongolian Paediatric Project
T. Baumann; Solothurn/CH (tombaum@gawnet.ch)

**Learning objectives:**
1. To explain how a nation-wide screening programme could be established for developmental dysplasia of the hip.
2. To describe the challenges and opportunities posed by a nation-wide screening for developmental dysplasia of the hip.

**MS 12a-4 16:55**
A paediatric orthopaedist’s perspective: who, when and how to screen for DDH
C. Maizen; London/UK (maizen.claudia@gmail.com)

**Learning objectives:**
1. To explain the paediatric orthopaedist perspective on who, when and how to screen for developmental dysplasia of the hip.
2. To discuss the challenges and opportunities in the screening for developmental dysplasia of the hip.

**17:15**
Panel discussion: How can we improve early detection of developmental dysplasia of the hip?

**16:00 - 17:30 Room K**

**Multidisciplinary Session**

**MS 12b**
Multidisciplinary team for epilepsy

**MS 12b-1 16:00**
Chairperson’s introduction
P. Demaere; Leuven/BE (p.demaere@uantwerpen.be)

**Session objectives:**
1. To review the clinical presentation of epilepsy.
2. To describe localising information in seizure semiology and EEG.
3. To discuss medical and surgical treatment options.

**MS 12b-2 16:05**
Clinical presentation and treatment options in epileptic disease
A. Schulze-Bonhage; Freiburg/DE (andreas.schulze-bonhage@uniklinik-freiburg.de)

**Learning objectives:**
1. To review the clinical presentation of epilepsy.
2. To describe localising information in seizure semiology and EEG.
3. To discuss medical and surgical treatment options.

**MS 12b-3 16:20**
Radiological workup in epilepsy: (functional) MRI
H. Urbach; Freiburg/DE (horst.urbach@uniklinik-freiburg.de)

**Learning objectives:**
1. To describe options for the detection of epileptogenic foci.
2. To explore the value of functional imaging techniques in epilepsy.
3. To show how to perform a pre-surgical imaging workup.

**MS 12b-4 16:35**
Stereotactic techniques
V. Goenner; Freiburg/DE (Volker.goenner@uniklinik-freiburg.de)

**Learning objectives:**
1. To describe general options of stereotactic techniques in epilepsy.
2. To discuss stereotactic lesioning techniques in different indications.
3. To show state-of-the-art SEEG technique.
Postgraduate Educational Programme

MS 12b-5 16:50
Image-guided epilepsy surgery
J. Beck; Freiburg/DE

Learning objectives:
1. To describe non-invasive and invasive pre-surgical diagnostic modalities.
2. To review surgical treatment options and the postoperative outcome.
3. To discuss how to deal with MRI-negative epilepsy.

17:05
Multidisciplinary case presentation and discussion

E3 - Advanced Course: How to Improve Your Expertise in Cardiothoracic Imaging

E3 1219
Infections of the chest

E3 1219-1 16:00
Chairperson's introduction
R. Cesar; Golnik/SI (rok.cesar@klinika-golnik.si)

Session objectives:
1. To review the role of imaging in infectious lung diseases.
2. To learn about cardiac complications of infections.

E3 1219-2 16:06
A. Pulmonary infections
J. Neuwirth; Prague 10/CZ (neuwirthj@gmail.com)

Learning objectives:
1. To evaluate the imaging patterns of thoracic tuberculosis.
2. To review the different imaging features of the disease in immune compromised patients.
3. To discuss the current role of imaging in nontuberculous mycobacterial disease.

E3 1219-3 17:02
C. Infectious endocarditis
H. Alkadhi; Zurich/CH

Learning objectives:
1. To review the valvular consequences of untreated infections.
2. To become familiar with the CT signs of endocarditis in native valves.
3. To learn about the typical appearance of infectious complications after valvular surgery.

RTF - Radiology Trainees Forum

TF Highlighted Lectures

Moderators:
M. Marotti Music; Ljubljana/SI
N. I. Traikova; Plovdiv/BG

TF-1 16:00
Imaging of knee in sports injuries
Ž. Snoj; Ljubljana/SI (ziga.snoj@gmail.com)

Learning objectives:
1. To understand the most common sports-related injury patterns in the knee.
2. To learn what to include in the MRI report.
3. To be familiar with diagnostic features after post-treatment procedures in the knee.

TF-2 16:30
Benign lesions in head and neck: what is really benign?
R. Maroldi; Brescia/IT

Learning objectives:
1. To be familiar with the most common benign findings in head and neck imaging.
2. To understand what benign lesions could cause potential complications and where is the need to be extremely cautious.
3. To know what to include in the MRI report.
E³ 1222-2 16:15
A. Whole-body MRI for staging and treatment planning in ovarian cancer
V. Vandecaveye: Leuven/BE (vincent.vandecaveye@uz.kuleuven.ac.be)

Learning objectives:
1. To learn the MRI technique for imaging the peritoneum in advanced ovarian cancer.
2. To learn the appearances of whole-body MRI in metastatic ovarian cancer.
3. To be aware of the pitfalls to interpretation.

E³ 1222-3 16:40
B. PET/CT and PET/MRI in cervix and endometrial cancer: current status
L. Umutlu: Essen/DE (Lale.Umutlu@uk-essen.de)

Learning objectives:
1. To learn the indications for use of hybrid imaging in cervix and endometrial cancer.
2. To know the strengths and weaknesses of the technique.
3. To be familiar with the role of hybrid imaging in patient prognosis.

E³ 1222-4 17:05
C. Advanced imaging techniques in metastatic gynaecological cancer
E. Sala: Cambridge/UK (es220@medschl.cam.ac.uk)

Learning objectives:
1. To learn about the concept and technique of texture analysis.
2. To know the strengths and weaknesses of the technique.
3. To be familiar with the role of hybrid imaging in patient prognosis.

E³ - Advanced Course: Hot Topics in GU Cancer

E³ 1222
Whole-body imaging in gynaecological malignancy

E³ 1222-1 16:00
Chairperson's introduction
P. Rouxset: Pierre-Bénite/FR (rousetpascal@gmail.com)
Texture analysis and radiogenomics in head and neck carcinoma
A. D. King; Hong Kong/CN

Learning objectives:
1. To learn about the rationale and technique of texture analysis and radiogenomics.
2. To acquire knowledge of the current results of these techniques in head and neck oncology.
3. To get an insight into the challenges of these techniques and future directions.

Panel discussion: New tools in head and neck oncology: fancy follies or must haves?
Abdominal Viscera

RC 1301
Common benign and malignant liver lesions: unusual radiological appearance
Moderator:
S. M. Ertürk; Istanbul/TR

RC 1301-1 08:30
A. Features of benign liver lesions
M. M. França; Maia/PT (marianamuelafranca@gmail.com)

Learning objectives:
1. To know the most common benign liver lesions.
2. To learn about unusual appearances of benign liver tumours.
3. To develop an algorithm in order to find the correct differential diagnosis.

RC 1301-2 09:00
B. Features of primary malignant liver lesions
V. Vilgrain; Clichy/FR (valerie.vilgrain@aphp.fr)

Learning objectives:
1. To understand the typical features and prevalence of hepatocellular carcinomas (HCCs) and cholangiocellular carcinomas (CCCs).
2. To learn about the reasons why HCCs and CCCs do not always show typical imaging features.
3. To establish a strategy as to how to differentiate atypical HCCs and CCCs from other liver tumours.

RC 1301-3 09:30
C. Features of liver metastases
Y. Menu; Paris/FR (yves.menu@aphp.fr)

Learning objectives:
1. To learn about the primary tumours often leading to liver metastases.
2. To understand why liver metastases can have different imaging characteristics.
3. To know the imaging features of liver metastases after systemic chemotherapy or loco-regional therapy.

Joint Session of the ESR and ESMRMB

ESR/ESMRMB
Ultrahigh-field (UHF) MRI goes clinical and beyond
Moderators:
R. Kreis; Bern/CH
A. Rockall; London/UK

ESR/ESMRMB-1 08:30
Challenges and solutions
A. G. Webb; Leiden/NL (a.webb@lumc.nl)

Learning objectives:
1. To learn about the challenges due to theoretical differences between MRI at very high and low field.
2. To understand the physical basis for improved imaging at very high fields.
3. To appreciate the technical solutions and the promise of ultrahigh-field MRI.

ESR/ESMRMB-2 08:55
The clinical use today
T. Sinnecker; Basel/CH (tim.sinnecker@miac.ch)

Learning objectives:
1. To learn about currently available imaging methods available at UHF.
2. To appreciate the clinical benefits of UHF MRI in neurologic and non-neurologic diseases.
3. To recognise the potential of UHF MRI in MS.

ESR/ESMRMB-3 09:20
New horizons
J. Winney; Utrecht/NL (jwinney@umcutrecht.nl)

Learning objectives:
1. To learn about non-standard contrasts becoming available thanks to UHF.
2. To appreciate the clinical potential of proton and heteronuclear spectroscopy at UHF.
3. To catch a glimpse of heteronuclear MRI at 7T and beyond.

09:45
Panel discussion: Does UHF MRI add more than cost?

Coffee & Talk (open forum) Session
Organised by ESOR

C 7
Why are research fellowships important for young radiologists?

C 7-1 09:00
Chairperson's introduction
L. Marti-Bonmati; Valencia/ES (Luis.Marti@uv.es)

Session objectives:
1. To interact with young and senior radiologists to foster research.
2. To discuss all elements of researchers’ involvement.
3. To understand enhanced critical-thinking and problem-solving skills.
4. To provide data for discussions in competencies and in healthcare innovation.

C 7-2 09:10
My experience as a young research fellowship recipient
J. Amorim; Porto/PT (joaopinheiroamorim@gmail.com)

Learning objectives:
1. To comment on the lessons learned and opportunities for young researchers.
2. To understand how research and clinical practice can be related.
3. To become familiar with main radiological research methodologies.
4. To learn how a research relationship can be built and followed-up.

C 7-3 09:20
Multidisciplinary collaboration to improve research in radiology
A. Alberich-Bayarri; Valencia/ES (angel@quibim.com)

Learning objectives:
1. To comment on the relevance of multidisciplinary collaboration in all steps of research.
2. To become familiar with the creation of, and problems related to, collaborative research.
3. To learn how knowledge, innovation, improvements, and visibility are distributed in healthcare.

C 7-4 09:30
How to mentor research fellowship programmes
R. Manfredi; Rome/IT

Learning objectives:
1. To understand how to develop or set up a research institutional programme.
2. To learn how to attract the best residents, fellows, and staff radiologists.
3. To be able to manage levels of involvement, tasks, and times (chronograms).

09:40
Open forum discussion
EuroSafe Imaging Session

EU 13
Paediatric CT doses and risks (MEDIRAD)
Moderator:
I. Thierry-Chef; Barcelona/ES

EU 13-1 08:30
Chairperson’s introduction
J. Damilakis; Iraklion/GR (John.Damilakis@med.uoc.gr)

EU 13-2 08:35
The use of CT in paediatrics: examination frequencies and common practices
M. Kaijser; Danderyd/SE

Learning objectives:
1. To provide information on the role of CT in the paediatric population.
2. To describe historical and current trends of CT usage in the paediatric population.
3. To discuss what can be expected of paediatric imaging in the future.

EU 13-3 08:50
CT dosimetry in children: patient-specific dosimetry and dose reduction tools
J. Damilakis; Iraklion/GR (John.Damilakis@med.uoc.gr)

Learning objectives:
1. To learn the strengths and limitations of patient-specific CT dosimetry.
2. To become familiar with dose reduction tools in paediatric CT.
3. To be updated about radiation doses in paediatric CT.

EU 13-4 09:05
Radiation exposure from CT in childhood and subsequent risk of haematological malignancies, brain and other cancers
I. Thierry-Chef; Barcelona/ES

Learning objectives:
1. To present the results of the EPI-CT European study concerning haematological malignancies.
2. To present the results of the EPI-CT European study concerning brain cancers and other solid tumours.
3. To discuss extension of follow-up and the need for a more detailed nested case-control study.
4. To share the lessons learned for optimisation of paediatric imaging protocols.

EU 13-5 09:20
Risk communication and risk optimisation
C. Granata; Genoa/IT

Learning objectives:
1. To learn how to establish an effective dialogue in a clinical setting with parents and carers.
2. To understand how the principles of justification and optimisation, and their implementation, are the basis of risk optimisation in radiologic imaging.

09:35
Panel discussion: Radiation safety in paediatric CT: what are the challenges?

E³ - ECR Master Class (Breast)

E³ 1326a
Artificial intelligence (AI) in breast imaging: potential perspectives and (unjustified) fears
Moderator:
T. H. Heibich; Vienna/AT

E³ 1326a-1 08:30
A. What a breast radiologist should know about artificial intelligence
E. Giannotti; Nottingham/UK (ytteb84@hotmail.com)

Learning objectives:
1. To define all terms used in artificial intelligence topics.
2. To know the main domains of applications in breast imaging.
3. To understand the principles of deep learning algorithm.

E³ 1326a-2 09:00
B. Deep learning algorithm applications in breast imaging
I. Thomassin-Naggara; Paris/FR (isabellethomassin@gmail.com)

Learning objectives:
1. To understand when we need to train, validate, and apply an AI in clinical routine.
2. To appreciate the real value for diagnosis of the different existing algorithms.
3. To learn how we could use it for personalised screening.

E³ 1326a-3 09:30
C. Radiomics and breast imaging
K. Pinker-Domenig; New York, NY/US (pinkerdk@mskcc.org)

Learning objectives:
1. To learn how a radiomic model may be built.
2. To know the main applications of radiomics in breast imaging.
3. To understand potential clinical implications of this domain.

Special Focus Session

SF 13
The abused child: the key role of imaging

SF 13-1 08:30
Chairperson’s introduction
S. M. Aukland; Bergen/NO (stein.magnus.aukland@helse-bergen.no)

Session objectives:
1. To learn about existing imaging guidelines in suspected physical child abuse.
2. To learn about the typical radiological findings in physical child abuse and how to differentiate inflicted from accidental injury.
3. To discuss the radiological evidence and the medico-legal role of the radiologist in physical child abuse.

SF 13-2 08:34
Skeletal injury: should we use radiography or CT?
R. R. van Rijn; Amsterdam/NL (r.r.vanrijn@amsterdamumc.nl)

Learning objectives:
1. To learn about usual aspects of skeletal injury in non-accidental trauma.
2. To learn about appropriate workup and existing guidelines.
3. To discuss respective indications for radiography and CT.

SF 13-3 08:52
Head injury CT and/or MRI?
A. Choudhary; Little Rock, AR, AR/US (achoudhary@uams.edu)

Learning objectives:
1. To learn about usual aspects of abusive head injury.
2. To learn about appropriate workup and existing guidelines.
3. To discuss respective indications for CT and MRI.
SF 13-4 09:10
Inflicted abdominal injury
M. Raissaki; Iraklion/GR (mraissaki@yahoo.gr)

Learning objectives:
1. To learn about typical imaging findings in abdominal trauma.
2. To learn about appropriate radiology workup in suspected inflicted abdominal injuries.
3. To discuss indications for imaging.

SF 13-5 09:28
Testimony in court
A. C. Offiah; Sheffield/UK (amaka.offiah@nhs.net)

Learning objectives:
1. To learn about the paediatric radiologist as a medico-legal expert.
2. To describe the role of the paediatric radiologist as part of the multidisciplinary team in suspected child abuse.
3. To learn about the role and the challenges for the paediatric radiologist during testimony in court.

09:46
Panel discussion: Imaging in non-accidental injury: the role of the paediatric radiologist

C 17
International Society of Radiology (ISR) call for action on quality and safety

Moderators:
D. P. Frush; Durham/US
G. Frija; Paris/FR

C 17-1 08:30
Introduction to the concept of the International Atomic Energy Agency (IAEA) Bonn Call for Action
O. Holmberg; Vienna/AT (O.Holmberg@iaea.org)

Learning objectives:
1. To learn what the Bonn Call for Action is, and how it helps strengthen radiation protection in medicine.
2. To understand the involvement of international organisations, radiation protection campaigns, and other interested parties in the implementation of the Bonn Call for Action.
3. To gain knowledge on different radiation protection initiatives and activities that link to the Bonn Call for Action.

C 17-2 08:40
The World Health Organisation (WHO) vision
M. D. R. Perez; Geneva/CH (perezm@who.int)

Learning objectives:
1. To present the WHO views and actions to promote quality and safety in health care.
2. To identify the challenges and opportunities for enhancing radiation safety culture in health care.
3. To discuss strategies for integrating radiation safety into the concept of patient safety and quality of care, enhancing stakeholders’ engagement, and strengthening global cooperation.

C 17-3 08:50
The Middle East vision
S. Hagi; Jeddah/SA (sarahhagi@gmail.com)

Learning objectives:
1. To present the current status of quality and safety issues in the Middle East region.
2. To address expectations and challenges for ArabSafe.
3. To identify opportunities of increased cross-fertilization between ArabSafe and ISROSA.

C 17-4 09:00
The African vision
T. El-Diasty; Mansoura/EG (teldiasty@hotmail.com)

Learning objectives:
1. To highlight the interest of the ISR and EuroSafe Imaging in promoting quality and safety issues in Africa.
2. To address challenges regarding quality/safety awareness in Africa.
3. To present the situation in Africa and the expectations of the African Society of Radiology (ASR) and AFROSAFE.

C 17-5 09:10
The Chinese vision
Z. Y. Jin; Beijing/CN

Learning objectives:
1. To highlight the current status of quality and safety in the Chinese radiology field.
2. To address challenges to quality and safety control of clinical radiology practice in China.
3. To present EuroSafe’s potential in promoting quality and safety issues in China.

C 17-6 09:20
Open forum discussion

E3 1321
Musculoskeletal radiology: arthropathies

E3 1321-1 08:30
A. Extremeities
Ü. Aydingöz; Ankara/TR (ustunaydingoz@yahoo.com)

Learning objectives:
1. To explain the key points in the differential diagnosis of common arthropathies in the extremities.
2. To describe the imaging findings of common arthropathies in the extremities as they relate to pathophysiology.

E3 1321-2 09:15
B. The axial skeleton
A. H. Karantanas; Iraklion/GR (akarantanas@gmail.com)

Learning objectives:
1. To explain the key points in the differential diagnosis of arthropathies in the axial skeleton.
2. To describe the imaging findings of arthropathies in the axial skeleton as they relate to pathophysiology.

E3 1326b
Autoimmune thoracic diseases

Moderator:
P. A. Grenier; Paris/FR

E3 1326b-1 08:30
A. Relapsing polychondritis
A.-L. Brun; Suresnes/FR (annelaure.brun@gmail.com)

Learning objectives:
1. To learn about the pathophysiology and clinical manifestations of this disease.
2. To learn when to suggest this diagnosis on CT.
3. To review the other causes of tracheobronchial wall thickening.
C 29-2 09:05
Why I chose radiology as a future career
A. Sharkey; London/UK (AmyRose.Sharkey@gstt.nhs.uk)

Learning objectives:
1. To appreciate the factors influencing career decision-making at the undergraduate level.
2. To highlight the challenges in making radiology an attractive career.
3. To learn of successful practices in promoting radiology to undergraduates.

C 29-3 09:13
Engaging undergraduates: lessons learnt from a young teacher's perspective
A. Svare; Riga/LV (atiss.svare@gmail.com)

Learning objectives:
1. To understand the challenges of engaging undergraduates from a teacher's perspective.
2. To highlight current best practice in teaching radiology.
3. To learn potential ways to improve radiology engagement in undergraduate education.

C 29-4 09:21
Interactivity: using software teaching platforms to inspire undergraduates
T. Vincent; Brighton/UK (T.R.Vincent@lsms.ac.uk)

Learning objectives:
1. To understand the key educational design principles that help make digital learning resources effective for learners.
2. To explore how digital learning resources can help attract undergraduates to radiology.
3. To discuss how ESR could improve undergraduate engagement with teaching and learning platforms.

C 29-5 09:29
How could the ESR develop the next generation radiologists? Delivering the undergraduate curriculum
C. Catalano; Rome/IT (carlo.catalano@uniroma1.it)

Learning objectives:
1. To highlight how the ESR undergraduate curriculum was conceived and developed.
2. To understand how ESR is delivering the curriculum.
3. To highlight how ESR is developing undergraduate engagement.

C 29-6 09:37
Open forum discussion: The next generation radiologist: next steps in producing a white paper
V. Goh; London/UK, A. Sharkey; London/UK, A. Svare; Riga/LV, T. Vincent; Brighton/UK, C. Catalano; Rome/IT, L. Oleaga Zufiria; Barcelona/ES (lauraoleaga@gmail.com)

08:30 - 10:00 Da Vinci (Room D1)

Emergency Imaging

RC 1317
Imaging of ‘foreign bodies’

RC 1317-1 08:30
Chairperson’s introduction
J. B. Dormagen; Oslo/NO (jobador@gmail.com)

Session objectives:
1. To become familiar with commonly used surgical and orthopaedic devices and materials.
2. To learn their proper positioning, and the early signs of postoperative complications.
3. To understand the imaging pathway in management of ingested foreign bodies.

RC 1317-2 08:35
A. Surgical and orthopaedic devices: are they really properly positioned?
E. A. Dick; London/UK (elizabethdick2010@gmail.com)

Learning objectives:
1. To become familiar with different types of commonly used surgical, neurosurgical, and orthopaedic devices in clinical practice.
2. To understand how to evaluate their proper positioning.
3. To be familiar with imaging signs of incorrect implementation of neurosurgical and orthopaedic devices.

RC 1317-3 09:00
B. Did I swallow that? US and CT of sharp foreign bodies penetrating stomach and bowel
J. B. C. M. Puylaert; The Hague/NL (dr.jbcmypuylaert@wxs.nl)

Learning objectives:
1. To become familiar with characteristics of commonly ingested foreign bodies.
2. To understand which imaging modalities are best suited for detection of foreign bodies in different clinical scenarios.
3. To recognise the first signs of early complications resulting from ingested foreign bodies.

RC 1317-4 09:25
C. The role of interventional radiology in the management of foreign bodies and following complications
H. Leonhardt; Gothenburg/SE (henrik.leonhardt@vgregion.se)

Learning objectives:
1. To recognise the role of interventional radiology in the treatment of complications resulting from the presence of foreign bodies.
2. To learn when to call the interventional radiologist.
3. To learn about techniques of the removal of foreign bodies with an endovascular approach.

09:50
Panel discussion: Common language with clinicians: how to report ‘foreign bodies’ presence and indicate the optimal management
EFRS meets the Netherlands

Meets 13
Safety in the Netherlands

Presiding:
J. McNulty; Dublin/IE
S. Geers van Gemeren; Utrecht/NL

Meets 13-1 08:30
Session introduction
J. McNulty; Dublin/IE (jonathan.mcnulty@ucd.ie)

Meets 13-2 08:35
Introduction: Radiographers in the Netherlands
S. Geers van Gemeren; Utrecht/NL (s.geers@nvmbr.nl)

Session objectives:
1. To introduce the radiography profession in the Netherlands and the priorities of the National Society.
2. To introduce the Dutch country and culture.
3. To introduce the important role of radiographers in safety.

Meets 13-3 08:40
Hybrid imaging: the merge between radiology and nuclear medicine
P. Liedorp; Raamshoekveer/NL (peter@p-medical.nl)

Learning objectives:
1. To understand the history of hybrid imaging.
2. To become familiar with the safety issues in hybrid imaging and the change in education of radiographers.

Meets 13-4 08:56
Gonad shielding guidelines for radiographers
A. Vegter; Stadskanaal/NL (avegter@treant.nl)

Learning objectives:
1. To learn about the Dutch gonad shielding guidelines for radiographers.
2. To acknowledge the impact of using guidelines and standards for the profession.
3. To learn about the important role of clinical reasoning for radiation protection.

09:12
Interlude: Feel the Netherlands

Meets 13-6 09:17
REVIVE: Radiology during pregnancy: translating risk factor publications and international guidelines into practice when communicating with pregnant patients
C. Vroonland; Haarlem/NL (colinda.vroonland@inholland.nl)

Learning objectives:
1. To become familiar with the multidisciplinary project REVIVE.
2. To learn about the Dutch guidelines.
3. To understand the challenges in implementing guidelines and standards.

Meets 13-7 09:33
Electromagnetic field risk assessment and evaluation in MRI
J. Meedendorp; Utrecht/NL

Learning objectives:
1. To learn about the EU directive 2013/15 on electromagnetic fields.
2. To learn about the Dutch guidelines on electromagnetic field assessment and evaluation.
3. To learn about the challenges and import role for radiographers.

09:49
Panel discussion

08:30 - 10:00 Darwin (Room D2)

Professional Challenges Session

PC 13
Equipment purchasing decisions: a team approach

PC 13-1 08:30
Chairperson’s introduction
A. Trianni; Udine/IT (annalisa.trianni@asulud.sanita.fvg.it)

Session objectives:
1. To become familiar with the general procurement process.
2. To address the general challenges of the process regarding multiple modalities.
3. To introduce the different roles of the team professionals.

PC 13-2 08:35
Preliminary evaluation of the need and utilisation
E. Kotter; Freiburg/DE (elmar.kotter@uniklinik-freiburg.de)

Learning objectives:
1. To learn about utilisation/need aspects and related values for further planning of specifications.
2. To discuss the differences between smaller and larger organisations’ needs for evaluation.
3. To present the preliminary evaluation process with an example case(s).

PC 13-3 08:49
Technical specification as the prerequisite for clinical use
A. T. Rogers; Nottingham/UK (andy.rogers@nuh.nhs.uk)

Learning objectives:
1. To become familiar with different types of technical specification to satisfy the utilisation criteria.
2. To address the pitfalls of specifications related to neutrality, independence, and relativity aspects.
3. To learn to grade tenders against specifications with an example case(s).

PC 13-4 09:03
Site planning and project management
M. N. N. Özmen; Ankara/TR (mozmen@hacettepe.edu.tr)

Learning objectives:
1. To address issues related to site construction requirements.
2. To discuss potential collaboration in purchasing between engineering, physics, and imaging experts.
3. To highlight approaches for success in imaging equipment installation.

PC 13-5 09:17
Legal and financial aspects of procurement
A. Giovagnoni; Ancona/IT (agiovagnoni@univpm.it)

Learning objectives:
1. To describe tender requirements in different countries.
2. To discuss financial options in equipment purchasing.
3. To describe ways for planning departmental equipment upgrades and maintenance.

PC 13-6 09:31
Economic Issues
E. Schouman-Claeys; Paris/FR

Learning objectives:
1. To discuss negotiation strategies.
2. To discuss short and long term financial plans for imaging equipment purchasing.
3. To describe the means for planning return on investment for expensive imaging scanners.

09:45
Panel discussion: How to choose the right machine?
Learning objectives:
1. To appreciate that dementia is more than Alzheimer's.
2. To understand that neurodegenerative diseases are overlapping and may co-exist.
3. To acknowledge the need for early and specific detection of cognitive decline for future, hopefully successful, clinical trials.

Session objectives:
1. To become familiar with the glymphatic system.
2. To appreciate the role of the glymphatic system in the clearance of amyloid-β and tau.
3. To highlight experiences with MRI of the glymphatic system in normal pressure hydrocephalus dementia.
4. To understand how reduced glymphatic and lymphatic clearance function may be associated with neurodegenerative disease.

PET as part of the biomarker toolbox for early clinical diagnosis of Alzheimer's disease
J. Arbizu; Pamplona/ES (j.arbizu@unav.es)

Learning objectives:
1. To learn about the different radiotracers available to evaluate the specific processes involved in the neurodegenerative conditions found in dementia.
2. To understand the benefit of PET molecular imaging in the diagnostic workup of Alzheimer's disease.
3. To appreciate the role of different PET and SPECT techniques in the differential diagnosis of neurodegenerative disorders.
4. To become familiar with the methodology to perform and read PET molecular imaging in dementia.

Imaging beyond beta-amyloid and tau: insights from high-field MRI
L. van der Weerd, Leiden/NL

Learning objectives:
1. To appreciate the technical advantages and disadvantages in the use of ultra-high field MRI.
2. To learn about the mechanisms of MRI contrasts at ultra-high field.
3. To learn about underlying pathophysiological sources of MRI contrast and the disease specificity of different MRI biomarkers.
4. To list promising applications of ultra-high field MRI in Alzheimer's disease and other neurodegenerative diseases.

Integrating population imaging with clinical imaging for the memory clinic: the Oxford Brain Health Centre
C. Mackay; Oxford/UK (clare.mackay@psych.ox.ac.uk)

Learning objectives:
1. To overview current practice for memory clinic imaging in the UK and beyond and appreciate the limitations for research.
2. To describe the recent major initiatives in population imaging and understand some of the technical and logistical challenges these studies face.
3. To describe the opportunities and challenges associated with integrating high quality individual imaging with large population datasets such as the UK Biobank for the clinic.
Learning objectives:
1. To learn how to adapt CT acquisition protocol during pregnancy.
2. To become familiar with alternative imaging techniques.
3. To become familiar with alternative diagnoses.

E³ 1319-3 09:04
B. Acute aortic disease in pregnancy
R. P. J. Budd: Rotterdam/NL (t.budde@erasmusmc.nl)

Learning objectives:
1. To learn about risk factors and prevalence of acute aortic syndromes during pregnancy.
2. To learn how to adapt CT acquisition protocol during pregnancy.
3. To become familiar with alternative imaging techniques.

E³ 1319-4 09:32
C. Imaging peripartum cardiomyopathy and other cardiac complications
A. Jacquier: Marseille/Fr (alexis.jacquier@ap-hm.fr)

Learning objectives:
1. To learn about prevalence and clinical presentation of cardiomyopathy during pregnancy.
2. To learn an appropriate diagnostic algorithm.
3. To become familiar with prognosis and outcome.

08:30 - 10:00 Room M 3

Cardiac

RC 1303
New techniques in cardiac CT: game changers or money makers?

RC 1303-1 08:30
Chairperson's introduction: Will the new techniques overcome the clinical underuse of cardiac CT?
K. Nikolaou: Tübingen/DE (Konstantin.Nikolaou@med.uni-tuebingen.de)

Session objectives:
1. To understand the importance of combining morphological and functional information in ischemic heart disease.
2. To understand the reasons for persisting underuse.
3. To get an overview about new techniques able to change this underuse.

RC 1303-2 08:35
A. Morphology matters: cardiac CT can improve the outcome
G. Muscogiuri: Milan/IT (g.muscogiuri@gmail.com)

Learning objectives:
1. To underline the high predictive value of cardiac CT.
2. To emphasise the impact of cardiac CT on the outcome.
3. To discuss the role of cardiac CT in the clinical management of coronary artery disease patients.

RC 1303-3 09:00
B. CT perfusion: integration of function will change the game
R. Vliegenthart: Groningen/NL (rvliegenthart@umcg.nl)

Learning objectives:
1. To learn about the technical challenges of performing CT perfusion.
2. To understand the opportunities of combining functional and morphological information by adding perfusion to cardiac CT.
3. To become familiar with the interpretation of CT perfusion results.

RC 1303-4 09:25
C. CT-derived fractional flow reserve (FFR) is the future!
U. J. Schoepf: Charleston, SC/US (schoepf@musc.edu)

Learning objectives:
1. To understand the principle of CT derived fractional flow reserve (CT FFR).
2. To learn about the possible added value of CT derived FFR to cardiac CT.
3. To discuss the influence of availability of CT derived FFR in the clinical management of CAD patients.

Transatlantic Course of ESR and RSNA (Radiological Society of North America): Stroke Imaging and Endovascular Treatment: Now and the Future

TC 1328
Practical stroke imaging and mimics

Moderators:
J.-P. Pruvo; Lille/FR
A. Vagal; Cincinnati, OH/US

TC 1328-1 08:30
A. Stroke mimics and “chameleons”: how to recognise them
D. Leys: Lille/FR (didier.leys@univ-lille.fr)

Learning objectives:
1. To learn about the definitions of stroke mimics and chameleons.
2. To understand the clinical challenges of stroke mimics.
3. To become familiar with the imaging signs and differential diagnosis of stroke mimics.

TC 1328-2 09:00
B. Practical review of stroke imaging and triage: within six hours and beyond including wake-up strokes
L. Hacein-Bey: Carmichael, CA/US (lhaceinbey@yahoo.com)

Learning objectives:
1. To learn about optimal patient triage in acute ischaemic stroke in early and delayed time windows.
2. To understand stroke imaging in wake-up strokes and unknown onset time.
3. To appreciate the importance of efficient workup and time metrics.

08:30 - 10:00 Room M 4

E³ - Advanced Course: Hot Topics in GU Cancer

E³ 1322
Tumour relapse in gynaecological cancer

E³ 1322-1 08:30
Chairperson’s introduction
S. Hougaret: Montpellier/Fr

E³ 1322-2 08:45
A. Differentiating relapse from post-treatment appearances
R. Forstner: Salzburg/AT (r.forstner@salk.at)

Learning objectives:
1. To learn post radiotherapy appearances in cervix cancer.
2. To recognise the appearances of disease relapse.
3. To be familiar with the complications of treatment seen on imaging.

E³ 1322-3 09:10
B. Planning exenterative surgery

Learning objectives:
1. To learn the important criteria for patient selection.
2. To learn the critical anatomy for surgical planning.
3. To be familiar with the post-surgical appearances and follow-up plan.
Learning objectives:
1. To be familiar with the imaging considerations for stereotactic radiotherapy in relapsed disease.
2. To be familiar with the concepts of imaging in directing a radiotherapy treatment plan.
3. To be familiar with the use of HIFU for treatment of pelvic relapse.

Joint Session of the ESR and EFSUMB

ESR/EFSUMB Bosniak cyst classification

ESR/EFSUMB-1/ESR/EFSUMB-2 08:30
Chairpersons' introduction
D.-A. A. Clevert; Munich/DE (Dirk.Clevert@med.uni-muenchen.de)
P. S. Sidhu; London/UK (paulsidhu@nhs.net)

Session objectives:
1. To review the classification of complex renal cysts and the relationship to malignancy.
2. To appreciate the need for a contrast-enhanced ultrasound (CEUS) classification of these complex cysts.
3. To review and understand the nature of the enhancement of complex cysts with CEUS.

ESR/EFSUMB-3 08:35
Contrast-enhanced ultrasound (CEUS) in the classification of Bosniak cysts: is it better?
V. Cantisani; Rome/IT (vito.cantisani@uniroma1.it)

Learning objectives:
1. To provide CEUS features for characterising cystic lesions.
2. To discuss literature evidence on the reliability of CEUS.
3. To compare CEUS properties with CT and MRI for better kidney cystic classification.

ESR/EFSUMB-4 08:53
Role of CT and MRI
T. Fischer; Berlin/DE (thom.fischer@charite.de)

Learning objectives:
1. To review the pros and cons of each approach, including safety of CT.
2. To become familiar with the Bosniak cyst classification for MRI and CT.
3. To discuss the evidence for the use of these methods in routine clinical practice.

ESR/EFSUMB-5 09:11
Key recommendations of the EFSUMB clinical position paper on US-based Bosniak cyst classification
M. Bertolotto; Trieste/IT (bertolot@units.it)

Learning objectives:
1. To review the differences between CEUS and contrast-CT/MRI in cystic renal lesion characterisation.
2. To describe the key features of CEUS that enables estimation of the risk of malignancy and assigns a Bosniak score.
3. To illustrate the EFSUMB key recommendations for renal cyst classification at CEUS.

ESR/EFSUMB-6/ESR/EFSUMB-7 09:29
Interactive cases presentation with renal cysts
J. Webb; Liverpool/UK (JOLANTA.WEBB@liverpoolFT.nhs.uk)
M. Ragel; Liverpool/UK (mragel@blueyonder.co.uk)

Learning objectives:
1. To understand which features of a renal cyst to assess during CEUS in order to assign a Bosniak classification, especially to distinguish between benign and malignant lesion.
2. To know the pitfalls of CEUS renal cyst characterisation and how to counteract them.
3. To understand the place of CEUS in renal cyst characterisation and the follow-up.

09:47
Panel discussion: How would you classify this complex renal cyst?
E3 25D-2 13:15
Staging
N. Kartalis; Stockholm/SE (nikolaos.kartalis@me.com)

Learning objectives:
1. To learn how to stage pancreatic adenocarcinoma.
2. To understand resectability criteria.
3. To appreciate the role of imaging in treatment planning.

12:45 - 13:45 Coffee & Talk 3
Coffee & Talk (open forum) Session
Organised by the ESR Patient Advisory Group (ESR-PAG)

C 30
Innovative tools to improve the communication between radiologists and patients

C 30-1 12:45
Chairperson’s introduction
E. Briers; Hasselt/BE

Session objectives:
1. To understand why patient-centred communication is key for achieving better outcomes in the radiology department.
2. To identify room for improvement in patient communication based on experience reports by patient representatives.
3. To learn how radiologists can implement efficient communication strategies to better divide time between patient consultations and clinical practice.

C 30-2 12:50
Sharing best practices in engaging with radiologists
C. Cruwys; Haute Vienne/FR (CCruwys@dense-info.org)

Learning objectives:
1. To appreciate practical tools that help to streamline the flow of information between patients and radiologists.
2. To learn about programs that help patients to better engage with professionals in the radiology department.
3. To understand how patients can participate in decision-making regarding the care pathway.

C 30-3 12:58
The radiologist’s perspective: effectively dividing time for communication with patients
D.-G. Carrie; Balma/FR (dominiquecarrie@wanadoo.fr)

Learning objectives:
1. To learn how to better organise direct contact with the patient in the radiology department.
2. To demonstrate how language can be adapted to meet expectations for understandable and clear communication.
3. To understand what practical tools are available in the radiology department to communicate more effectively with patients.

C 30-4 13:06
Patient experiences on optimising communication in the radiology department
B. Bauer; Abensberg/DE

Learning objectives:
1. To demonstrate how digital tools can contribute to improving the communication between patients and radiologists.
2. To learn about practical solutions in hospital departments in order to explain clinical results.
3. To outline how patients can more adequately educate themselves to better understand radiology procedures.

C 30-5 13:14
Achieving better patient outcomes through effective communication and empowerment
C. Justich; Vienna/AT (cjustich@me.com)

Learning objectives:
1. To outline which initiatives could be introduced in the hospital department to involve patients in seeking effective communication tools.
2. To learn practical solutions in hospital departments to meet patients’ demands for involvement in decision-making regarding the care pathway.
3. To understand why patient empowerment and engagement will result in more effective communication in the hospital department.

13:22
Open forum discussion: How to implement a system of effective patient-professional communication

14:00 - 15:30 Room B
Head and Neck
RC 1508
Skull base

RC 1508-1 14:00
Chairperson’s introduction
B. Schuknecht; Zurich/CH (bschuknecht@mri-roentgen.ch)

Session objectives:
1. To become familiar with normal skull base anatomy and variants.
2. To understand how to review skull base pathology.
3. To know how to differentiate infection/inflammation from a tumour.

RC 1508-2 14:05
A. Skull base anatomy
E. Loney; Halifax/UK (elizabeth.loney@cht.nhs.uk)

Learning objectives:
1. To understand how to classify skull base anatomy.
2. To become acquainted with clinically relevant anatomical variants.
3. To review the important anatomical subsites.

RC 1508-3 14:28
B. Infectious and inflammatory diseases of the skull base
Timothy Beale; London/UK

Learning objectives:
1. To understand how to classify skull base anatomy.
2. To become familiar with the imaging modalities used to diagnose and assess treatment response.
3. To recognise the important review areas and complications.

RC 1508-4 14:51
C. Benign and malignant tumours of the skull base
A. Borges; Lisbon/PT (borgalexa@gmail.com)

Learning objectives:
1. To learn how to make an accurate differential diagnosis.
2. To become familiar with important review areas and the staging of malignant tumours.
3. To recognise tumour mimics.

15:14
Panel discussion: What are the challenges in assessing the skull base?
Learning objectives:
1. To understand the current usage of AI in radiology to generate more effective outcomes.
2. To learn how AI will transform clinical practice for radiologists in the next few decades.
3. To identify best practices for bridging the gap between radiologists and patients due to technological developments.

2. To understand how AI will transform clinical practice for radiologists to meet expectations and benefit patients.

3. To learn how the use of AI in radiology raises ethical questions that need to be answered in view of a patient-centred approach.

Session objectives:
1. To understand which ethical implications accompany the introduction of AI in radiology.
2. To provide examples of how patient involvement in data collection and analysis contributes to an accelerated diagnosis and treatment.
3. To understand how patient education and communication in the field of AI is crucial in order to maintain the patient's trust in clinical practice and research.

Learning objectives:
1. To learn which measures need to be introduced from a patient's point of view to uphold the highest data privacy standards.
2. To demonstrate how patients can contribute to better outcomes in radiology.
3. To learn how patients can be encouraged to co-develop AI in radiology through shared-decision making and active involvement in utilising AI.

Learning objectives:
1. To learn about the relevance of training for AI development.
2. To provide examples of how patient involvement in data collection and analysis contributes to an accelerated diagnosis and treatment.
3. To understand how patient education and communication in the field of AI is crucial in order to maintain the patient's trust in clinical practice and research.

Learning objectives:
1. To learn about the relevance of training for AI development.
2. To provide examples of how patient involvement in data collection and analysis contributes to an accelerated diagnosis and treatment.
3. To understand the need for validation of AI tools.

Learning objectives:
1. To learn how AI is currently used in radiology to generate more effective outcomes.
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2. To provide examples of how patient involvement in data collection and analysis contributes to an accelerated diagnosis and treatment.
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Breast

RC 1502
Interventional breast imaging: the increasing role of the radiologist

Moderator:
C. Kurtz; Lucerne/CH

Learning objectives:
1. To learn how to categorise nodules as solid, part-solid, or non solid.
2. To learn how to define subsolid nodule evolution during follow-up.
3. To learn about the criteria of positive screens.

RC 1502-1 14:00
A. Fine needle aspiration cytology (FNAC), core needle or vacuum assisted biopsy (VAB): what, when and how?
A. Evans; Dundee/UK (a.z.evans@dundee.ac.uk)

Learning objectives:
1. To get to know the different needle systems.
2. To become familiar with potential pitfalls.
3. To be able to choose the right needle for the right indication.

RC 1502-2 14:30
B. Breast lesion localisation: going beyond wires
M. Marolt Music; Ljubljana/SI (mmusic@onko-i.si)

Learning objectives:
1. To appreciate the importance of image-guided preoperative wire localisation for non-palpable lesions.
2. To get to know alternative localisation techniques.
3. To become familiar with the limitations of different techniques.

RC 1502-3 15:00
C. Percutaneous ablation of breast cancer: a step forward
G. Mauri; Milan/IT

Learning objectives:
1. To become familiar with the different techniques for tumour ablation.
2. To acknowledge the value of each technique for the treatment of breast lesions.
3. To be able to choose the right needle for the right indication.

ESTI Session: Lung Cancer Screening Certification Programme

ESTI
Lung nodule management: case-based session

ESTI-1 14:00
Chairpersons’ introduction
H. Prosch; Vienna/AT

ESTI-1 14:05
Solid nodule morphological evaluation: how to recognise obviously benign/malignant nodules, intrapulmonary lymph nodes, and pitfalls
A. Devaraj; London/UK

Learning objectives:
1. To learn how to recognise obviously benign/malignant nodules.
2. To become familiar with intrapulmonary lymph node characteristics.
3. To be aware of the common pitfalls.

ESTI-2 14:33
Solid nodule measurement, follow-up and criteria of positive screens
H. Prosch; Vienna/AT (helmut.prosch@meduniwien.ac.at)

Learning objectives:
1. To understand the limitations of diameter measurement.
2. To appreciate the role of computed assisted diagnosis (CAD) tools for volume measurement and doubling time estimation.
3. To learn about the criteria of positive screens.

ESTI-3 15:01
Subsolid nodules evaluation, follow-up and criteria of positive screens
M.-P. Revel; Paris/FR (marie-pierre.revel@aphp.fr)

Learning objectives:
1. To learn how to categorise nodules as solid, part-solid, or non solid.
2. To learn how to define subsolid nodule evolutivity during follow-up.
3. To learn about the criteria of positive screens.

14:00 - 15:30 Room N

Coffee & Talk (open forum) Session
Organised by EuroSafe Imaging

C 18
EuroSafe meets ArabSafe

C 18-1/C 18-2 14:00
Chairpersons’ Introduction
G. Frija; Paris/FR (guy.frija@aphp.fr)
B. Mansouri; Algiers/DZ (boudjema.mansouri@gmail.com)

Session objectives:
1. To highlight the EuroSafe Imaging strategy.
2. To discuss optimisation and justification.
3. To share common experiences.

C 18-3 14:10
EuroSafe Imaging campaign: is the EuroSafe Imaging Call for Action relevant for ArabSafe?
G. Frija; Paris/FR (guy.frija@aphp.fr)

Learning objectives:
1. To highlight the EuroSafe Imaging Imaging Call for Action.
2. To detail how optimisation is handled.
3. To provide an update on the EuroSafe Imaging Stars concept.

C 18-4 14:20
ArabSafe campaign: which are the most important challenges in implementing radiation protection?
B. Mansouri; Algiers/DZ (boudjema.mansouri@gmail.com)

Learning objectives:
1. To update and highlight the implementation of the ArabSafe campaign, including the results and constraints.
2. To highlight the implementation of the Bonn Call for Action into Arabic countries though the ArabSafe campaign, taking into consideration the peculiarities or similarities at a regional level (north Africa or the Middle East).
3. To expand on issues relating to radiation safety and, in particular, how to tackle the challenges of encouraging adherence to standards, policies, strategies, and activities.

C 18-5 14:30
Use case in Saudi Arabia: Presentation of the first Saudi National DRLs for CT in adults and children: implementation plan and the effect of the implementation of dose monitoring in mammography screening practice in Saudi Arabia
S. Hagi; Jeddah/SA (sarahhagi@gmail.com)

Learning objectives:
1. To present the results of the Saudi Food & Drug Authority (SFDA) National DRLs for CT practice.
2. To highlight the modification to paediatric practices.
3. To present the features of mammography practice in Saudi Arabia and its limitations.
4. To introduce the Saudi FDA national project for establishing mammography DRLs.
5. To discuss the effect of using dose monitoring software on mean glandular dose in a teaching hospital.

C 18-6 14:40
Use case in Egypt
D. Husseiny Salama; Cairo/EG (drdinahusseiny@yahoo.com)

Learning objectives:
1. To present Egypt’s key use cases in radiation safety technology.
2. To highlight the interaction between the available tools and the needs of the end users.
3. To introduce the radiation safety model in Egypt and how the technology functions through it.
Special Focus Session

SF 15
My top three tips for imaging musculoskeletal injury

SF 15-1 14:00
Chairperson’s Introduction
U. Aydingöz; Ankara/TR (ustunaydingoz@yahoo.com)

Session objectives:
1. To describe clinically useful imaging tips to diagnose and manage musculoskeletal injuries.
2. To explain the relevance and diagnostic accuracy of the presented imaging findings.
3. To list pitfalls and the differential diagnosis of imaging findings.

SF 15-2 14:05
Wrist
J.-L. Drape; Paris/FR (jean-luc.drape@cch.aphp.fr)

Learning objectives:
1. To describe clinically useful imaging tips to diagnose and manage wrist injuries.
2. To explain the relevance and diagnostic accuracy of the presented imaging findings.
3. To list the pitfalls and the differential diagnosis of imaging findings.

SF 15-3 14:20
Shoulder
K. Wörtler; Munich/DE (klaus.woertler@tum.de)

Learning objectives:
1. To describe clinically useful imaging tips to diagnose and manage shoulder injuries.
2. To explain the relevance and diagnostic accuracy of the presented imaging findings.
3. To list the pitfalls and the differential diagnosis of imaging findings.

SF 15-4 14:35
Hip
V. V. Mascarenhas; Lisbon/PT (vmascarenhas@me.com)

Learning objectives:
1. To describe clinically useful imaging tips to diagnose and manage hip injuries.
2. To explain the relevance and diagnostic accuracy of the presented imaging findings.
3. To list the pitfalls and the differential diagnosis of imaging findings.

SF 15-5 14:50
Knee
C. W. A. Pfirrmann; Forch/CH

Learning objectives:
1. To describe clinically useful imaging tips to diagnose and manage knee injuries.
2. To explain the relevance and diagnostic accuracy of the presented imaging findings.
3. To list the pitfalls and the differential diagnosis of imaging findings.

SF 15-6 15:05
Ankle
B. Forster; Vancouver/CA (bruce.forster@vch.ca)

Learning objectives:
1. To describe clinically useful imaging tips to diagnose and manage ankle and foot injuries.
2. To explain the relevance and diagnostic accuracy of the presented imaging findings.
3. To list the pitfalls and the differential diagnosis of imaging findings.

15:20
Panel discussion: My single best tip in improving diagnostic accuracy in musculoskeletal injury
Meet 15-10 15:09
The history of Medicare in Canada
E. Lee; Vancouver/CA (ejlee888@gmail.com)

Learning objectives:
1. To describe the Canadian medical system.
2. To recognise the journey and evolution to a publicly funded health system.
3. To identify the advantages and challenges within the Canadian medical system.

15:24
Questions

14:00 - 15:30 Room F2

E³ - Rising Stars Programme: Basic Session

BS 15a
Hybrid imaging
Moderator:
U. Mahmood; Oak Brook/US

BS 15a-1 14:00
Clinical applications of hybrid imaging
K. Riklund; Umeå/SE (katrine.riklund@umu.se)

Learning objectives:
1. To understand the indications and limitations of hybrid imaging in common diseases.
2. To discuss the added value of hybrid imaging.

BS 15a-2 14:30
Hybrid imaging: thorax
D. Neriman; London, LONDON/UK (deena.neriman@nhs.net)

Learning objectives:
1. To learn about the indications for thoracic pathologies.
2. To discuss limitations and pitfalls in thoracic pathologies.
3. To demonstrate the most important findings.

BS 15a-3 15:00
Hybrid imaging: abdomen and pelvis
S. Gatidis; Tübingen/DE (sergios.gatidis@med.uni-tuebingen.de)

Learning objectives:
1. To learn about the indications for abdominal and pelvic pathologies.
2. To discuss limitations and pitfalls in abdominal and pelvic pathologies.
3. To demonstrate the most important findings.

Coffee & Talk (open forum) Session

C 31
Addressing shortages in the medical imaging workforce
Moderators:
B. Verbiest; Leiden/NL
D. Katsifarakis; Athens/GR

C 31-1 14:30
Overview from the WHO on the health care worker shortages and contributing factors
M. D. R. Perez; Geneva/CH (perezm@who.int)

Learning objectives:
1. To summarise the existing shortages, the WHO’s High-Level Commission on Health Employment and Economic Growth, and the ILO-WHO-OECD Working for Health Five Year Action Plan.
2. To discuss the adopted World Health Assembly resolution on the Global Strategy on Human Resources for Health: Workforce 2030.
3. To explain the Call for Action Campaign that has been established to address the global health care worker shortfall.

C 31-2 14:35
The view of the International Society of Radiology
L. Donoso; Barcelona/ES (ldonoso@clinic.cat)

Learning objectives:
1. To provide an overview of global radiologist shortfalls.
2. To discuss the ISR’s contributions and strategies to counter the global radiologist workforce shortage.

C 31-3 14:40
The view of the European Society of Radiology
L. E. Derchi; Genoa/IT (derchi@unige.it)

Learning objectives:
1. To provide an overview of current, and future, radiologist shortfalls in Europe.
2. To discuss opportunities and efforts to counter the radiologist workforce shortages in Europe.

C 31-4 14:45
The view of the International Society of Radiographers and Radiologic Technologists
D. E. Newman; Fargo, ND/US (donnaenewman@gmail.com)

Learning objectives:
1. To provide an overview of global radiographer/radiologic technologist shortfalls.
2. To discuss ISRRT’s collaborative efforts and strategies, submitted to WHO, to counter these shortages.
3. To discuss the ISRRT partnership with the EFRS to disseminate strategies within Europe to help counter these shortages.

C 31-5 14:50
The views of the European Federation of Radiographer Societies
J. McNulty; Dublin/IE (jonathan.mcnulty@ucd.ie)

Learning objectives:
1. To provide an overview of the current status of the radiographer workforce across Europe.
2. To discuss opportunities and efforts to counter shortages across Europe through collaborative efforts.

14:55
Open forum discussion

14:00 - 15:30 Da Vinci (Room D1)

Physics in Medical Imaging

RC 1513
Striking the balance: image quality assessment in radiological optimisation

RC 1513-1 14:00
Chairperson’s introduction: The big picture: can we be objective about image quality?
M. Kortesniemi; Hus/FI (mika.kortesniemi@hus.fi)

Session objectives:
1. To appreciate the reasons why image quality is important in radiological optimisation.
2. To understand the main methods of image quality assessment and optimisation.
3. To learn how image quality assessment is applied in clinical practice.

RC 1513-2 14:05
A. From signal to image: the basics of image quality assessment
A. Mackenzie; Guildford/UK (alistair.mackenzie@uhns.net)

Learning objectives:
1. To learn the basics of signal formation and image quality assessment.
2. To understand how they are applied in radiological imaging.
3. To identify limitations.
B. Between a ROC(k) and a hard place: methods of determining clinical image quality
O. J. O Connor; Cork/IE (oj.oconnor@ucc.ie)

Learning objectives:
1. To learn about traditional and practical methods of determining image quality.
2. To understand how the methods are applied to projection radiography, interventional radiology, and CT.
3. To identify limitations of current techniques.

C. Bridging the gap between physical and clinical image quality
C. Hoeschen; Magdeburg/DE

Learning objectives:
1. To learn about physics-based methods of determining image quality.
2. To understand how they are applied to projection radiography, interventional radiology, and CT.
3. To identify how to bridge the gap between the physics methods and the clinical image quality assessment.

Panel discussion: Can we balance image quality and dose needs in an objective manner?

E³ - ECR Master Class (Abdominal Viscera)

E³ 1526
Update of diffusion-weighted MRI
Moderator:
S. R. Rafaelsen; Vejle/DK

E³ 1526-1 14:00
A. Technical advances of diffusion-weighted imaging (DWI)
N. Papanikolaou; Lisbon/PT (nickolas.papanikolaou@research.fchampalimaud.org)

Learning objectives:
1. To learn about the strengths and shortcomings of different DWI techniques.
2. To understand how to integrate and optimise DWI in MRI protocols.
3. To be able to avoid pitfalls in DWI.

E³ 1526-2 14:30
B. DWI of abdominal organs
D. Caruso; Rome, LT/IT (dcaruso85@gmail.com)

Learning objectives:
1. To learn how to integrate DWI in your abdominal MRI protocol.
2. To understand the clinical value of DWI for the depiction of abdominal pathologies.
3. To be able to deal with technical difficulties of DWI in the upper abdomen and subphrenic space.

E³ 1526-3 15:00
C. DWI of pelvic organs
E. Sala; Cambridge/UK (es220@medschl.cam.ac.uk)

Learning objectives:
1. To understand the correct implementation of DWI for pelvic imaging.
2. To learn how to avoid imaging artefacts in pelvic DWI.
3. To become familiar with typical findings and pitfalls of pelvic DWI.

Vascular

RC 1515
No time to lose: aortic disease, revisited
Moderator:
T. Jargiello; Lublin/PL

RC 1515-1 14:00
A. Diagnosis and treatment of abdominal aortic aneurysms
F. Wolf; Vienna/AT (florian.wolf@meduniwien.ac.at)

Learning objectives:
1. To learn about the definition and classification of abdominal aortic aneurysms.
2. To understand the relevant information and measurements to plan an endovascular aortic repair.
3. To become familiar with the different possibilities of endovascular treatment including anchors, snorkels, branches, and chimneys.

RC 1515-2 14:30
B. Acute diagnosis and imaging in aortic dissection
R. Iezzi; Rome/IT (roberto.iezzi@policlinicogemelli.it)

Learning objectives:
1. To learn about definition and classification of aortic dissections and subtypes.
2. To understand the importance of accurate diagnosis for appropriate treatment planning.
3. To appreciate the need for acute diagnosis and treatment indication.

RC 1515-3 15:00
C. Endovascular treatment in aortic dissection
P. J. Schaefer; Kiel/DE (jp.schaefer@rad.uni-kiel.de)

Learning objectives:
1. To learn about endovascular treatment possibilities for aortic dissections.
2. To understand the role of radiology in modern treatment of aortic dissections.
3. To appreciate the need to combine radiological information with the clinical situation.

Neuro

RC 1511
Update on cerebrospinal fluid (CSF) diseases
Moderator:
Z. Merhemic; Sarajevo/BA

RC 1511-1 14:00
A. Imaging strategies for hydrocephalus
J. Bladowska; Wroclaw/PL (asia.bladowska@gmail.com)

Learning objectives:
1. To describe the different types of hydrocephalus and how to distinguish them in imaging.
2. To understand the pathophysiology of CSF circulation.
3. To apply MRI techniques for diagnosing abnormalities of the CSF flow.

RC 1511-2 14:22
B. Diagnosis and treatment of intracranial hypotension
E. Papadakis; Iraklion/GR (tpapada@otenet.gr)

Learning objectives:
1. To understand the underlying pathophysiology of spontaneous intracranial hypotension (SIH).
2. To understand imaging strategies for this condition.
3. To clarify myths and misperceptions of intracranial hypotension.
1. To understand the anatomy, normal variants, and abnormalities of the heart and great vessels.
2. To describe the technical aspects and methodology of cardiac and vascular CT.
3. To describe the technical aspects and methodology of cardiac and vascular MRI.

E3 1523-2 14:06
A. Cardiovascular imaging: the basics
R. Marano; Rome/IT (riccardo.marano@unicatt.it)

Learning objectives:
1. To understand the anatomy, normal variants, and abnormalities of the heart and great vessels.
2. To describe the technical aspects and methodology of cardiac and vascular CT.
3. To describe the technical aspects and methodology of cardiac and vascular MRI.

E3 1523-3 14:34
B. Cardiovascular imaging: valves, endocardium and aorta
C. Loewe; Vienna/AT (christian.loewe@medunivwien.ac.at)

Learning objectives:
1. To recognise the imaging presentation of the different forms of valvular disease.
2. To understand the causes and imaging presentations of endocarditis.
3. To describe the diagnostic evaluation and imaging presentation of common diseases of the great vessels, including aortic dissection and aneurysms.

E3 1523-4 15:02
C. Cardiovascular imaging: myocardium and pericardium
J. Bogaert; Leuven/BE (jan.bogaert@uzleuven.be)

Learning objectives:
1. To describe the diagnostic evaluation and imaging presentation of ischaemic heart disease.
2. To understand the diagnostic evaluation and imaging presentation of myocarditis.
3. To become familiar with the causes and imaging presentations of pericardial effusion.
Postgraduate Educational Programme

E³ 1519-3 14:34
B. Paravertebral space
M. Occhipinti; Florence/IT (mariaelena.occhipinti@gmail.com)

Learning objectives:
1. To become familiar with the posterior mediastinal pathology.
2. To review the typical and atypical features of neurogenic tumours.
3. To learn about less frequent causes of paravertebral space masses.

E³ 1519-4 15:02
C. Cardiac masses: a survival guide
V. E. Sinitsyn; Moscow/ RU (vsini@mail.ru)

Learning objectives:
1. To learn how to differentiate thrombi from tumours of the cardiac cavities.
2. To review the main differential diagnosis of cardiac tumours.
3. To learn about the role of US, CT, and MRI for diagnosis and characterisation.

14:00 - 15:30 Room M 5
E³ - Advanced Course: Hot Topics in GU Cancer

E³ 1522
Tumour relapse in urological cancer

E³ 1522-1 14:00
Chairperson's introduction
V. Løgager; Herlev/DK (Vibeke.Loegager@regionh.dk)

E³ 1522-2 14:15
A. Prostate cancer relapse
V. Panebianco; Rome/IT (valeria-panebianco@uniroma1.it)

Learning objectives:
1. To learn the follow-up strategy post radical prostatectomy.
2. To recognise relapse and know the patterns of spread.
3. To learn about the use of imaging in planning salvage therapy.

E³ 1522-3 14:40
B. Non-prostate urological cancer relapse
H. A. H. Vargas; New York, NY/US

Learning objectives:
1. To recognise the expected post treatment appearances.
2. To know follow-up strategies for detection of relapse.
3. To learn to recognise pitfalls by case review.

E³ 1522-4 15:05
C. Theranostics in urological cancer
M. Hartenbach; Vienna/AT (markus.hartenbach@me.com)

Learning objectives:
1. To learn about theranostic options in urological cancers.
2. To understand the advantages and limitations of theranostic approaches.
3. To become familiar with the new indications and outcomes of theranostic approaches.

Transatlantic Course of ESR and RSNA
(Radiological Society of North America):
Stroke Imaging and Endovascular Treatment:
Now and the Future

TC 1528
Endovascular treatment

Moderators:
J.-P. Pruvo; Lille/FR
R. Uberoi; Oxford/UK

TC 1528-1 14:00
A. Endovascular treatment of acute ischaemic stroke: practical pearls
A. Berlis; Augsburg/DE

Learning objectives:
1. To learn about endovascular treatment in ischaemic stroke.
2. To understand the different approaches of endovascular treatment.
3. To appreciate the importance of efficient workup and time metrics in angiosuite.

TC 1528-2 14:30
B. Where to perform and how to organise thrombectomy
J. Heit; Stanford/US (jheit@stanford.edu)

Learning objectives:
1. To learn about the number of persons and regulatory recommendations.
2. To understand the optimal organisation in angiosuite and workflow.
3. To appreciate the implications and management for continuity of care.

TC 1528-3/TC 1528-4/TC 1528-5 15:00
C. Interactive discussion with illustrative cases of endovascular thrombectomy
A. Berlis; Augsburg/DE
J. Heit; Stanford/US (jheit@stanford.edu)
G. Boulouis; Paris/FR (gregoireboulouis@gmail.com)

Learning objectives:
1. To learn about tricks and tips of endovascular treatment using illustrative cases.
2. To appreciate the optimal time metrics in angiosuite.
3. To become familiar with the different approaches (stent retriever, ADAPT) and challenging cases (tandem occlusions, distal occlusions).

US 15
Common applications of dermatologic ultrasound

Moderators:
O. Catalano; Naples/IT
D. E. Gaitini; Haifa/IL

US 15-1 14:00
Chairperson's introduction
X. Wortsman; Santiago/CL (xworts@yahoo.com)

Session objectives:
1. To review the normal anatomy of the skin, nails, and hair, and to review the guidelines and technical considerations for performing dermatologic ultrasound examinations.
2. To provide an overview of the frequent applications of ultrasound in benign dermatologic conditions.
3. To learn the ultrasonographic features of the most common types of skin cancer.

US 15-2 14:05
Dermatologic ultrasound: essential anatomy, guidelines, and technical considerations
D. E. Gaitini; Haifa/IL (d_e_gaitini@rambam.health.gov.il)

Learning objectives:
1. To learn the requisites for practising dermatologic ultrasound examinations.
2. To become familiar with the normal ultrasound anatomy of skin, nail, and hair.
3. To review and understand the current guidelines for dermatologic ultrasound examinations.
1. To learn the most common benign dermatologic conditions that can benefit from an ultrasound examination.
2. To appreciate the clinical and ultrasonographic correlations of these dermatologic entities.
3. To understand the ultrasound appearance of these conditions.

Learning objectives:
1. To learn the most common benign dermatologic conditions that can benefit from an ultrasound examination.
2. To appreciate the clinical and ultrasonographic correlations of these dermatologic entities.
3. To understand the ultrasound appearance of these conditions.

US 15-4 14:45
Ultrasonographic signs and locoregional staging of skin cancer
C. Catalang: Naples/IT

Learning objectives:
1. To learn the most common types of skin cancer.
2. To appreciate the ultrasonographic appearance of the most common types of skin cancer.
3. To understand and review the protocol for an ultrasonographic locoregional staging of skin cancer.

16:00 - 17:30 Room N
EuroSafe Imaging Session
EU 16
Technology developments which impact dose delivery
EU 16-1/EU 16-2 16:00
Chairpersons’ introduction: Setting the scene of modern technology for exposure efficient medical imaging
C. Hoeschen: Magdeburg/DE
G. Frija: Paris/FR (guy.frija@aphp.fr)

Session objectives:
1. To introduce why optimisation of dose is important in certain imaging tasks.
2. To highlight the importance of efficient technology use.
3. To introduce speakers and their topics in terms of potential of imaging technology.

EU 16-3 16:05
Overarching technological developments for producing x-rays in medical imaging for reducing dose
C. Hoeschen: Magdeburg/DE

Learning objectives:
1. To learn about the possibilities of changing the way personal dosimetry of staff is performed by using computational methods.
2. To understand the concept of iterative 3D image reconstruction.
3. To discuss the chances and limits of such technologies, especially with respect to three-dimensional and interventional imaging.

EU 16-4 16:23
Applying algorithmic approaches for efficient imaging technologies
M. Rafecas: Lübeck/DE (rafecas@imt.uni-luebeck.de)

Learning objectives:
1. To learn about the different reconstruction and noise reduction methods.
2. To understand potentials and limitations of such technologies.
3. To see examples from various imaging modalities.

EU 16-5 16:41
Optimising radiation efficiency in interventional imaging
M. Pech: Magdeburg/DE

Learning objectives:
1. To learn about the possibilities to improve image quality and dose management in CT fluoroscopy.
2. To understand the concept of iterative 3D image reconstruction.
3. To learn how to estimate the radiation dose to the hand during interventions correctly.

EU 16-6 16:59
New concepts for dose determination for staff and patients, and ist importance for optimisation
L. Struelens: Mol/BE (lisrule@skcenc.be)

Learning objectives:
1. To learn about the possibilities of changing the way personal dosimetry of staff is performed by using computational methods.
2. To learn about new developments to improve the monitoring of patient doses by using computational methods.

17:17 Panel discussion: Future chances for radiation protection by efficient use of technological developments

16:00 - 17:30 Room B
Emergency Imaging
RC 1617
Blunt polytrauma: CT protocols, CT interpretation and interventional radiology options
RC 1617-1 16:00
Chairperson’s introduction
K. H. Nieboer: Brussels/BE (k.hans.nieboer@gmail.com)

Session objectives:
1. To understand the different CT and contrast protocols that can be performed in blunt polytrauma patients and when to apply them.
2. To be able to quickly identify and classify solid organ injuries.
3. To recognise injuries that can be treated with interventional radiology.

RC 1617-2 16:05
A. CT protocols in blunt polytrauma
E. Kashef: London/UK (elikadoc@icloud.com)

Learning objectives:
1. To understand the advantages and disadvantages of different CT protocols adopted in blunt polytrauma patients.
2. To learn the goal of use of single and dual phase contrast injection protocols in trauma.
3. To be able to incorporate the most suitable CT protocol in defined clinical scenarios.

RC 1617-3 16:30
B. Solid organs injuries: a tailored approach
M. N. Patlas: Hamilton, ON/CA (patlas69@yahoo.com)

Learning objectives:
1. To learn about the main traumatic injuries that can be detected in solid organs.
2. To understand which crucial findings will change patient management.
3. To understand what surgical and intensive care teams need to know about detected injuries.

RC 1617-4 16:55
C. Interventional radiology in trauma: diagnosis and management
T. Jargiello: Lublin/PL (tojarg@interia.pl)

Learning objectives:
1. To learn which vascular injuries in solid organs can be treated with interventional radiology.
2. To become familiar with the imaging findings of great vessel injuries.
3. To understand how vascular injuries can be treated.

17:20 Panel discussion: What is the best CT protocol in the evaluation of blunt trauma patients?
New Horizons Session

NH 16
Lung cancer screening implementation in Europe: is it inevitable?

NH 16-1 16:00
Chairperson’s introduction
M. M. Prokop; Nijmegen/NL (mathias.prokop@radboudumc.nl)

Session objectives:
1. To summarise the current status of CT lung cancer screening from a national and international perspective.
2. To analyse common hurdles to recruitment, retention, and access.
3. To determine future directions into which CT lung cancer screening should evolve.

NH 16-2 16:05
NELSON trial latest results
H. J. de Koning; Rotterdam/NL (h.dekoning@erasmusmc.nl)

Learning objectives:
1. To review the NELSON trial design and settings.
2. To learn about the final mortality reduction results.
3. To learn about causes of death unrelated to lung cancer.

NH 16-3 16:23
Lung cancer screening in Europe
M. Silva; Parma/IT (mariosilvamed@gmail.com)

Learning objectives:
1. To review the European guidelines for screening.
2. To learn about the Lung Cancer Screening (LCS) certification project.
3. To describe the currently active nationwide screening programmes.

NH 16-4 16:41
Challenges to implementing lung cancer screening: US experience
A. Bankier; Boston, MA/US (alexander.bankier@umassmemorial.org)

Learning objectives:
1. To learn about ways to promote lung cancer screening.
2. To review the strategies for a high adherence and retention rate.
3. To learn how to optimise lung cancer screening implementation in clinical practice.

NH 16-5 16:59
Lung cancer screening: will humans still be needed?
B. van Ginneken; Nijmegen/NL (bramvanginneken@gmail.com)

Learning objectives:
1. To learn about computer-aided detection (CAD) tools for lung nodule detection and characterisation.
2. To review automated screening opportunities beyond lung nodule detection.
3. To learn about the current and projected future artificial intelligence performance in lung cancer detection.

Panel discussion: Lung cancer screening, from trial to practice
M. M. Prokop; Nijmegen/NL, H. J. de Koning; Rotterdam/NL, M. Silva; Parma/IT, A. Bankier; Boston, MA/US, B. van Ginneken; Nijmegen/NL, S. Vallone; Turin/IT

E³ - ECR Master Class (Musculoskeletal)

E³ 1626a
State-of-the-art imaging of postoperative joints

Moderator:
F. Kainberger; Vienna/AT

E³ 1626a-1 16:00
A. Postoperative shoulder
C. W. A. Pfirrmann; Forch/CH

Learning objectives:
1. To explain the most frequently used surgical techniques for glenohumeral instability, subacromial decompression, rotator cuff repair and arthroplasty, and their imaging appearance.
2. To describe potential postoperative complications and their imaging appearance.

E³ 1626a-2 16:30
B. Postoperative knee
E. Oei; Rotterdam/NL (e.oei@erasmusmc.nl)

Learning objectives:
1. To explain the most frequently used surgical techniques for meniscal repair, ligament reconstruction and cartilage repair, and their imaging appearance.
2. To describe potential postoperative complications and their imaging appearance.

E³ 1626a-3 17:00
C. Postoperative hip
P. D. Afonso; Lisbon/PT (p.diana.a@gmail.com)

Learning objectives:
1. To explain the most frequently used surgical techniques for femoroacetabular impingement and degenerative hip joint disease, and their imaging appearance.
2. To describe potential postoperative complications and their imaging appearance.

Abdominal Viscera

RC 1601
Imaging of pancreatitis

Moderator:
K. I. Ringe; Hannover/DE

RC 1601-1 16:00
A. Focal pancreatitis vs adenocarcinoma
T. L. Bollen; Nieuwegein/NL (tibollen@hotmail.com)

Learning objectives:
1. To learn about the prevalence and clinical markers of focal pancreatitis and adenocarcinoma.
2. To understand the difficulties in differentiating these entities and to develop imaging-based problem solving tools.
3. To become familiar with follow-up strategies in non-conclusive cases or when the biopsy is negative.

RC 1601-2 16:22
B. IgG4 autoimmune pancreatitis
A. Arora; Liverpool/UK

Learning objectives:
1. To know the imaging characteristics of autoimmune pancreatitis compared to other forms of pancreatitis.
2. To learn about the value of different imaging tool including US, CT, and MRI for the diagnosis of autoimmune pancreatitis.
3. To be aware of imaging markers indicating therapeutic success in patients with autoimmune pancreatitis.
RC 1601-3 16:45
C. Imaging of chronic pancreatitis  
N. Kartalis; Stockholm/SE (nikolaos.kartalis@me.com)

Learning objectives:
1. To understand the strengths and weaknesses of different imaging tools for the diagnosis of chronic pancreatitis.
2. To be aware of typical and atypical imaging findings in patients with chronic pancreatitis.
3. To learn about the pitfalls and how to avoid diagnostic mistakes in patients with chronic pancreatitis.

RC 1601-4 17:07
D. Interventions in acute pancreatitis  
M. Maher; Dublin/IE (m.maher@ucc.ie)

Learning objectives:
1. To recognise the techniques of interventions in acute pancreatitis.
2. To understand the indications of transgastric vs percutaneous drainage.
3. To learn how to avoid complications following pancreatic interventions.

State of the Art Symposium

SA 16
Hepatocellular carcinoma (HCC): the role of radiology

SA 16-1 16:00
Chairperson’s introduction  
F. Caseiro Alves; Coimbra/PT (caseiroalves@gmail.com)

Session objectives:
1. To discuss the role of radiologists in the management of patients with HCC.
2. To learn the imaging findings of HCC and the differentials.
3. To become familiar with treatment options.

SA 16-2 16:05
A clinician’s perspective on the role of radiology in HCC: any room for improvement?  
M.-A. Woerns; Mainz/DE (marcus-alexander.woerns@unimedizin-mainz.de)

Learning objectives:
1. To review how the clinician benefits from imaging in the management of patients with HCC.
2. To become familiar with the clinician’s questions and the answers radiology may provide.
3. To learn from a clinician’s perspective how radiologists can improve in their role in the management of patients with HCC.

SA 16-3 16:20
Guidelines and beyond: the non-invasive diagnosis of HCC  
C. B. Sirlin; San Diego/US (csirlin@ucsd.edu)

Learning objectives:
1. To understand similarities and differences in the current guidelines for the diagnosis of HCC worldwide.
2. To understand the algorithmic approach to imaging diagnosis: liver imaging reporting and data system (LI-RADS).
3. To review the pros and cons of the different systems.

SA 16-4 16:40
How to approach a small lesion in cirrhosis  
G. Brancatelli; Palermo/IT (gbranca@yahoo.com)

Learning objectives:
1. To review typical and atypical forms of small HCC in the cirrhotic liver.
2. To describe the most common lesions and pseudolesions occurring in the cirrhotic liver beyond HCC.
3. To understand strategies to improve diagnosis of small lesions in the cirrhotic liver.

SA 16-5 17:00
How imaging can help choose treatment of HCC and the role of interventional radiology  
V. Vilgrain; Clichy/FR (valerie.vilgrain@aphp.fr)

Learning objectives:
1. To learn the key factors for the treatment of HCC patients.
2. To understand the role of imaging in choosing treatment.
3. To become familiar with the role of interventional radiology in HCC.

Panel discussion: How can we improve the diagnosis of HCC?

Musculoskeletal

RC 1610
Musculoskeletal infection

Moderator:  
M. Rupreht; Maribor/SI

RC 1610-1 16:00
A. Imaging osteomyelitis: an update  
J. Fritz; Baltimore, MD/US (janfritz777@gmail.com)

Learning objectives:
1. To describe the role of imaging in diagnosing osteomyelitis.
2. To explain the role of intravenous contrast medium in diagnosing osteomyelitis.
3. To list the differential diagnostic considerations in imaging osteomyelitis.

RC 1610-2 16:30
B. Soft tissue infections  
S. Martin; Palma de Mallorca/ES (silvia.m.martin@gmail.com)

Learning objectives:
1. To describe the role of imaging in soft tissue infections.
2. To explain the role of intravenous contrast medium in diagnosing soft tissue infections.
3. To list the differential diagnostic considerations in imaging soft tissue infections.

RC 1610-3 17:00
C. Septic arthritis  
R. K. Lalam; Oswestry/UK (radhesh.lalam@nhs.net)

Learning objectives:
1. To describe the role of imaging in septic arthritis.
2. To explain the role of intravenous contrast medium in diagnosing septic arthritis.
3. To list the differential diagnostic considerations in imaging septic arthritis.

Coffee & Talk (open forum) Session

C 32
How to advance the academic ladder

C 32-1 16:00
Chairperson’s Introduction  
J. Sosna; Jerusalem/IL (jacobs@hadassah.org.il)

Session objectives:
1. To describe promotion tracks in academic radiology.
2. To present quality metrics in judging publications.
3. To highlight the importance of grants in the production of valuable research.
C 32-2 16:05
Judging publications for academic promotions
L. Marti-Bonmati; Valencia/ES (Luis.Marti@uv.es)

Learning objectives:
1. To present how publications are judged in academic committees.
2. To describe bibliometric measures.
3. To emphasise the value of publications in academic radiology.

C 32-3 16:15
Grants: importance for science and academia
G. P. Krestin; Rotterdam/NL

Learning objectives:
1. To describe the value of raising grants for performing research.
2. To present possible sources of funding and means for acquiring them.
3. To present how grant-raising is judged in universities.

16:25
Open forum discussion

16:00 - 17:30 Da Vinci (Room D1)

Vascular

RC 1615
Visceral arteries

RC 1615-1 16:00
Chairperson’s introduction
J. A. Reekers; Amsterdam/NL

Session objectives:
1. To learn about incidence and aetiology of visceral arteries diseases.
2. To become familiar with clinical symptoms and evaluation in visceral arteries diseases.
3. To indicate the role of radiology in diagnosis and treatment of the visceral arteries.

RC 1615-2 16:05
A. Diagnosis of abdominal vascular compression syndromes
B. E. Çil; Istanbul/TR (bcil@kuh.ku.edu.tr)

Learning objectives:
1. To become familiar with abdominal arterial and venous compression syndromes.
2. To learn about functional imaging techniques in assessment of vascular compression syndromes.
3. To become familiar with the typical imaging findings in abdominal compression syndromes and their clinical relevance.

RC 1615-3 16:28
B. Acute and chronic mesenteric ischaemia
M. Zins; Paris/FR (mzins@lnpj.fr)

Learning objectives:
1. To become familiar with occlusive and non-occlusive mesenteric ischaemia.
2. To understand the differences between acute and chronic ischaemia.
3. To learn about the importance of fast and correct diagnosis in acute mesenteric ischaemia.

RC 1615-4 16:51
C. Endovascular treatment of mesenteric ischaemia
R. A. Morgan; London/UK (robert.morgan@stgeorges.nhs.uk)

Learning objectives:
1. To review indications for endovascular treatment of mesenteric ischaemia.
2. To become familiar with the technical possibilities of endovascular repair of visceral arteries.
3. To learn about risks and complications of endovascular treatment of mesenteric ischaemia.

17:14
Panel discussion: Radiologists as the best case managers in acute and chronic mesenteric ischaemia

16:00 - 17:30 Darwin (Room D2)

Breast

RC 1602
Update on lesions with uncertain malignant potential (B3)
Moderator: C. Van Ongeval; Leuven/BE
RC 1602-1 16:00
A. Wrap-up of the newest literature on the most important B3 lesions
Z. Varga; Zurich/CH

Learning objectives:
1. To know about the biological behaviour of the most important B3 lesions.
2. To understand the difference between B3a and B3b lesions.
3. To recognise the most worrisome entities.

RC 1602-2 16:30
B. Imaging lesions of uncertain potential
A. Linda; Udine/IT (annalinda33@gmail.com)

Learning objectives:
1. To become familiar with the most common imaging findings in B3 lesions.
2. To identify the most appropriate imaging modality.
3. To identify the factors that limit patient compliance to the management recommendations after a pathologic result of a high-risk breast lesion.

RC 1602-3 17:00
C. How to handle them: update on B3 guidelines
N. Sharma; Leeds/UK (Nisha.sharma2@nhs.net)

Learning objectives:
1. To learn about the most recent international recommendations on the management of B3 lesions.
2. To differentiate between the results of a core needle and a vacuum assisted biopsy (VAB).
3. To be able to identify cases when VAB excision may pose a valid alternative to a surgical one.

16:00 - 17:30 Descartes (Room D3)

Radiographers

RC 1614
Practical computed tomography tips for radiographers
RC 1614-1/RC 1614-2 16:00
Chairpersons’ introduction
H. Husemajic; Tuzla/BA
J. Santos; Coimbra/PT (joanasantos@estescoimbra.pt)

Session objectives:
1. To understand the impact of CT scanner development on the radiographers’ role.
2. To be aware of practical optimisation tips for routine CT examinations based on clinical indications in adults and children.

RC 1614-3 16:06
A. The practical implications of CT scanner development: where we have come from and where we are now
D. Hribar; Ljubljana/SI (dejan.hribar@kclj.si)

Learning objectives:
1. To appreciate the developments in CT technology over time.
2. To understand the implications of technological advancements upon current clinical practice.
3. To be aware of key aspects of technology developments with which radiographers should be fully familiar.
**Postgraduate Educational Programme**

**RC 1614-4 16:29**
B. Practical tips for radiographers in CT scanning of the thorax and abdomen
S. D. Mørup; Kolding/DK (sdmo@ucl.dk)

Learning objectives:
1. To review CT examinations of the thorax and abdomen, and subsequent dose implications.
2. To be aware of recent research relevant to the optimisation of CT examination of the thorax and abdomen.
3. To understand key principles of optimisation for specific clinical indications when performing a CT examination of the thorax and abdomen.

**RC 1614-5 16:52**
C. Practical tips for radiographers when scanning paediatric imaging
B. Møller Christensen; Jönköping/SE (berit.moller-christensen@ju.se)

Learning objectives:
1. To review examinations that are routinely performed on paediatric patients.
2. To understand key evidence-based principles of optimisation and how these can be applied in routine practice.
3. To be aware of how European and international guidelines and legislation in different geographical jurisdictions should empower active optimisation in paediatric CT.

**17:15**
Panel discussion: How can we ensure CT radiographers keep up to date with changes in CT technology?

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**Paediatric**

**RC 1612**
Imaging in abdominal emergencies: an (evidence-based) update
Moderator: C. de Lange; Oslo/NO

**RC 1612-1 16:00**
A. The acute abdomen in neonates
A. Coma; Barcelona/ES (coma.ana@gmail.com)

Learning objectives:
1. To learn about typical neonatal abdominal emergencies.
2. To understand the choice of modalities in acute abdomen emergencies in neonates.
3. To appreciate typical findings and ‘red flag’ features.

**RC 1612-2 16:30**
B. The acute abdomen in young children
A. D. Calder; London/UK (Alistair.Calder@gosh.nhs.uk)

Learning objectives:
1. To learn about the causes of acute abdominal pain in children.
2. To understand the choice of imaging techniques and their limitations.
3. To appreciate typical radiological features of abdominal emergencies.

**RC 1612-3 17:00**
C. Polytrauma: differences between adult and paediatric protocols
C. J. L. Eriksen; Oslo/NO (cornelialind@gmail.com)

Learning objectives:
1. To learn how paediatric trauma differs from adult trauma.
2. To understand how examination techniques and protocols must be tailored accordingly.
3. To appreciate the importance of multidisciplinary team collaboration in planning and conducting radiological investigations in a trauma setting.

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**Cardiac**

**RC 1603**
Dead or alive: imaging of myocardial viability

**RC 1603-1 16:00**
Chairperson’s introduction
C. Peebles; Southampton/UK (Charles.Peebles@uhs.nhs.uk)

Session objectives:
1. To understand the concept of myocardial viability.
2. To understand the current state of the art to image myocardial viability.
3. To outline the role of echocardiography, single-photon emission computed tomography (SPECT), CT, and MRI.

**RC 1603-2 16:05**
A. MRI: why and when
T. Leiner; Utrecht/NL (t.leiner@umcutrecht.nl)

Learning objectives:
1. To learn how MRI should be performed to assess viability.
2. To understand the strengths and weaknesses of MRI compared to other techniques.
3. To learn how to report MRI for viability assessment.

**RC 1603-3 16:28**
B. Hybrid imaging
F. Caobelli; Basel/CH (federico.caobelli@usb.ch)

Learning objectives:
1. To learn how hybrid imaging should be performed to assess viability.
2. To understand the strengths and weaknesses of hybrid imaging compared to other techniques.
3. To understand how hybrid imaging could be developed in clinical practice.

**RC 1603-4 16:51**
C. CT: how and why
F. Bamberg; Freiburg/DE (fabian.bamberg@uni-tuebingen.de)

Learning objectives:
1. To learn about the potential of CT to assess viability.
2. To understand the strengths and weaknesses of CT imaging compared to other techniques.
3. To understand how to report CT for viability assessment.

**17:14**
Panel discussion: What imaging test for which patient?
E³ 1626b-2 16:05
A. Prostate MRI: minimum and optimal requirements
  J. O. Barentsz; Nijmegen/NL (Jelle.Barentsz@radboudumc.nl)

Learning objectives:
1. To understand the minimum requirements for multiparametric MRI of prostate cancer.
2. To understand how to optimise MRI technique at 3T and 1.5T.
3. To review sequence parameters and scan optimisation for prostate imaging.

E³ 1626b-3 16:28
B. Towards a European accreditation of prostate imaging centres
  V. Løgager; Herlev/DK (Vibeke.Loegager@regionh.dk)

Learning objectives:
1. To learn about the role of the radiologist in the multidisciplinary approach for prostate cancer.
2. To discuss the requirements for a specialist prostate centre, with emphasis to the imaging issue.
3. To understand quality indicators for prostate MRI.

E³ 1626b-4 16:51
C. Towards a certified radiologist
  H. C. Thoeny; Fribourg/CH (Harriet.thoeny@h-fr.ch)

Learning objectives:
1. To understand the need for a certified radiologist in a prostate unit.
2. To illustrate the level III European Training Curriculum for prostate imaging.
3. To discuss how to certify radiologists for prostate imaging.

17:14
Panel discussion: Prostate units: the radiologist must be in the core team

16:00 - 17:30 Room M 2

E³ - Advanced Course: How to Improve Your Expertise in Cardiothoracic Imaging

E³ 1619
Pulmonary embolism/pulmonary hypertension

E³ 1619-1 16:00
Chairperson's introduction
  G. Aviram; Tel-Aviv/IL (aviramgalit@hotmail.com)

Session objectives:
1. To review the current controversies regarding pulmonary embolism diagnosis.
2. To review the role of CT in pulmonary hypertension.
3. To appreciate the need for defining a standardised management.

E³ 1619-2 16:06
A. Diagnosis of acute pulmonary embolism (PE)
  M.-P. Revel; Paris/FR (marie-pierre.revel@aphp.fr)

Learning objectives:
1. To review the role of clinical probability scores and D-dimer assessment.
2. To learn about tips and tricks to optimise arterial opacification on CT.
3. To learn about key features to report in acute PE.

E³ 1619-3 16:34
B. Pulmonary hypertension
  A. P. Parkar; Bergen/NO (applekar@gmail.com)

Learning objectives:
1. To become familiar with the causes of pulmonary hypertension.
2. To learn about the radiological presentation of pulmonary artery hypertension.
3. To understand how imaging helps patient management.

16:00 - 17:30 Room M 3

E³ - Rising Stars Programme: Basic Session

BS 16
The importance of good patient positioning in imaging
Moderator:
  A. Ohmstede; Oldenburg/DE

BS 16-1 16:00
Positioning tips and tricks for musculoskeletal radiography
  J. Jensen; Odense/DK (J.Jensen@regionh.dk)

Learning objectives:
1. To understand how correct positioning is assessed.
2. To understand the impact of incorrect patient positioning on radiation dose and image quality.
3. To highlight appropriate actions to correct poor positioning.

BS 16-2 16:25
Positioning tips and tricks for CT
  R. Booij; Rotterdam/NL (r.booij@erasmusmc.nl)

Learning objectives:
1. To become familiar with the impact on image quality and radiation exposure due to the isocenter in CT.
2. To be aware of tools to adapt protocols according to clinical indications.
3. To understand the impact of patient positioning in image post-processing.

BS 16-3 16:50
Positioning tips and tricks for MRI
  C. Malamateniou; London/UK (christina.malamateniou@city.ac.uk)

Learning objectives:
1. To understand the importance of appropriate coil positioning as part of sequence optimisation.
2. To understand the importance of careful patient positioning in terms of image quality, diagnostic accuracy, and reproducibility.
3. To be aware of further positioning considerations for claustrophobic, paediatric, and other patient groups.

17:15
Panel discussion: The importance of patient positioning: do we have to go back to basics?
Transatlantic Course of ESR and RSNA (Radiological Society of North America): Stroke Imaging and Endovascular Treatment: Now and the Future

TC 1628
The future strategy for stroke thrombectomy

Moderators:
J.-P. Pruvo; Lille/FR
R. Ubertoi; Oxford/UK
A. Vagat; Cincinnati, OH/US

TC 1628-1 16:00
A. Addressing workforce needs: who and how to train specialists
H. van Overhagen; Den Haag, 2H/NL (hansvo@xs4all.nl)

Learning objectives:
1. To learn about the number and type of specialists trained.
2. To understand the global organisation of stroke interventionists and neurologists.
3. To appreciate the potential number of cases.

TC 1628-2 16:30
B. The future for stroke thrombectomy: what is next?
M. V. Jayaraman; Providence, RI/US (mjayaraman@lifespan.org)

Learning objectives:
1. To learn about the subgroups that were not studied in the recent stroke trials.
2. To understand about use of artificial intelligence in stroke.
3. To become familiar with use of artificial intelligence in stroke.

TC 1628-3 17:00
C. New innovations in stroke thrombectomy techniques and technology
K. A. Hausegger; Klagenfurt/AT (klaus.hausegger@kabeg.at)

Learning objectives:
1. To understand the limitations of current devices and techniques.
2. To appreciate the evolution in stroke thrombectomy technology.
3. To understand how the different devices and techniques may improve outcomes.

E³ - Advanced Course: Hot Topics in GU Cancer

E³ 1622
Early detection of ovarian cancer

E³ 1622-1 16:00
Chairperson’s introduction
R. Forstner; Salzburg/AT (rforstner@salk.at)

E³ 1622-2/ E³ 1622-3 16:15
A. Current guidance on screening and familial ovarian cancer
A. George; London/UK (angela.george@rmh.nhs.uk)
A. Rockall; London/UK (a.rockall@imperial.ac.uk)

Learning objectives:
1. To be aware of the implications of the results of recent screening trials.
2. To be aware of breast cancer (BRCA) gene testing and treatment implications.
3. To know the guidance on screening high risk groups.

E³ 1622-4 16:40
B. Ultrasound in ovarian tumours: the role of pattern recognition, IOTA, and O-RADS
J. Yazbek; London/UK (joseph.yazbek@nhs.net)

Learning objectives:
1. To explore various methods used in the ultrasound assessment of adnexal masses.
2. To understand a new lexicon for ovarian/adnexal mass evaluation on ultrasound.
3. To explore the clinical application of the lexicon and the development of a risk stratification and management system.

E³ 1622-5 17:05
C. O-RADS: MRI
I. Thomassin-Naggara; Paris/FR (isabellethomassin@gmail.com)

Learning objectives:
1. To understand a new lexicon for ovarian/adnexal mass evaluation on MRI.
2. To understand the use of the lexicon in the development of a risk stratification and management system.
3. To apply O-RADS-MRI to case management.

US 16 Ultrasound-guided interventional procedures: new techniques and applications

Moderator:
D.-A. A. Clevert; Munich/DE

US 16-1 16:00
Liver
E. Leer; London/UK

Learning objectives:
1. To learn about the new results and applications of ultrasound in guided intervention procedures: liver malignancy biopsy, primary liver malignancy ablation, secondary liver malignancy ablation.
2. To understand consolidated and new indications of ultrasound-guided intervention procedures: PEI, RFA, MWA, IRE.
3. To appreciate the accuracy of ultrasound-guided intervention procedures from consolidated to new applications: analysis of data from personal experiences and literature series comparison and discussion.
4. To become familiar with the new techniques of ultrasound guidance and the new diagnostic and therapeutic indications for ultrasound-guided intervention procedures: CEUS imaging, fusion imaging, elastosonographic imaging for liver malignancy biopsy and treatment, MWA, IRE, combination treatment.

US 16-2 16:15
Pancreas
M. D’onofrio; Verona/IT (mirko.donofrio@univr.it)

Learning objectives:
1. To learn about new results and applications of ultrasound-guided interventional procedures: pancreatic malignancy FNA and biopsy, primary pancreatic malignancy ablation.
2. To understand consolidated and new indications of ultrasound-guided intervention procedures: FNA and biopsy, RFA.
3. To appreciate the accuracy of ultrasound-guided interventional procedures from consolidated to new applications: analysis of data from personal experiences and literature series comparison and discussion.
4. To become familiar with the new techniques of ultrasound guidance and with the new diagnostic and therapeutic indications for ultrasound-guided interventional procedures: CEUS imaging, fusion imaging, elastosonographic imaging for pancreatic malignancy biopsy and treatment, RFA, MWA, IRE, combination treatment.
Learning objectives:

1. To learn about new results and applications of ultrasound-guided interventional procedures: renal malignancy FNA and biopsy, primary renal malignancy ablation.
2. To understand consolidated and new indications of ultrasound-guided interventional procedures: FNA and biopsy, RFA.
3. To appreciate the accuracy of ultrasound-guided interventional procedures from consolidated to new applications: analysis of data from personal experiences and literature series comparison and discussion.
4. To become familiar with the new techniques of ultrasound guidance and with the new diagnostic and therapeutic indications for ultrasound-guided interventional procedures: CEUS imaging, fusion imaging, elastosonographic imaging for renal malignancy biopsy and treatment, RFA, cryoablation, MWA, combination treatment.

Learning objectives:

1. To learn about new results and applications of ultrasound-guided interventional procedures: thyroid malignancy FNA, thyroid nodule ablation.
2. To understand consolidated and new indications of ultrasound-guided interventional procedures: FNA, RFA.
3. To appreciate the accuracy of ultrasound-guided interventional procedures from consolidated to new applications: analysis of data from personal experiences and literature series comparison and discussion.
4. To become familiar with the new techniques of ultrasound guidance and with the new diagnostic and therapeutic indications for ultrasound-guided interventional procedures: CEUS imaging, fusion imaging, elastosonographic imaging for thyroid malignancy FNA.

Learning objectives:

1. To learn about new results and application of ultrasound-guided vascular interventional procedures.
2. To understand consolidated and new indications to ultrasound-guided vascular interventional procedures.
3. To become familiar with the new techniques of ultrasound guidance and with the new diagnostic and therapeutic indications for ultrasound vascular interventional procedures: CEUS imaging and fusion imaging.

Panel discussion: How to be prepared for ultrasound-guided interventions?
08:30 - 09:30  Room B

**E³ - The Beauty of Basic Knowledge: Breast**

**E³ 24E**

**How to deal with common clinical breast symptoms**

Moderators:
G. Forrai; Budapest/HU  
K. Kinkel; Chêne-Bougeries/CH

**E³ 24E-1 08:30**

The acute painful breast  
M. Lesaru; Bucharest/RO (m.lesaru@gmail.com)

**Learning objectives:**
1. To learn about the choice of imaging modality.
2. To understand management options and treatment of common breast lesions causing pain, including mastitis.

**E³ 24E-2 09:00**

How to manage nipple discharge  
I. Thomassin-Naggara; Paris/FR (isabellethomassin@gmail.com)

**Learning objectives:**
1. To identify causes of nipple discharge unrelated to the breast or physiology.
2. To learn about the choice and sequence of imaging modalities to identify breast lesions causing nipple discharge.
3. To understand the spectrum of common benign and malignant breast lesions in relationship to nipple discharge.

08:30 - 09:30  Room C

**E³ - The Beauty of Basic Knowledge: Pancreas**

**E³ 25E**

**Pancreatic adenocarcinoma mimickers**

Moderator:
R. Negrelli; Verona/IT

**E³ 25E-1 08:30**

Autoimmune pancreatitis  
R. Manfredi; Rome/IT (riccardo.manfredi@unicatt.it)

**Learning objectives:**
1. To learn about autoimmune pancreatitis.
2. To understand imaging findings of pancreatic adenocarcinoma mimickers.
3. To appreciate differential diagnosis criteria for pancreatic adenocarcinoma.

**E³ 25E-2 09:00**

Paraduodenal pancreatitis  
G. Morana; Treviso/IT (giovanni.morana@aulss2.veneto.it)

**Learning objectives:**
1. To learn about autoimmune paraduodenal pancreatitis.
2. To understand imaging findings of paraduodenal pancreatitis.
3. To appreciate differential diagnosis criteria for paraduodenal pancreatitis.

08:30 - 10:00  Room N

**Physics in Medical Imaging**

**RC 1713**

**Dose management in paediatric radiology**

**RC 1713-1 08:30**

Chairperson’s introduction  
C. Saidlear; Dublin/IE (colm.saidlear@cuh.ie)

**Session objectives:**
1. To become familiar with modern dose management methods in paediatric radiology.
2. To understand the important aspects of paediatric dose management.
3. To appreciate the current trends and limitations.

**RC 1713-2 08:35**

A. The special case of the paediatric patient: risks and justification  
C. Owens; Doha/QA (owens.catherine.5@gmail.com)

**Learning objectives:**
1. To learn about risks and justification techniques in paediatric radiology.
2. To understand how these methods are applied in a clinical setting.
3. To appreciate the benefits of new information and the current limitations.

**RC 1713-3 08:58**

B. Optimisation and technology in neonate and paediatric CT scanning  
P. Nowik; Stockholm/SE (patrik.nowik@ki.se)

**Learning objectives:**
1. To review the dose assessment and dose management methods in paediatric CT imaging.
2. To understand the technical possibilities for CT optimisation between different vendors.
3. To learn how to implement optimisation in protocol management and at the multiprofessional team level.

**RC 1713-4 09:21**

C. Optimisation and technology in neonate and paediatric projection radiography (PR) and interventional radiology (IR)  
H. Delis; Patras/GR (hdelis@gmail.com)

**Learning objectives:**
1. To understand the dose management and technical optimisation methods in paediatric PR.
2. To understand the dose management and technical optimisation methods in paediatric IR.
3. To learn how to implement optimisation in protocol management and at the multiprofessional team level.

09:44

Panel discussion: Paediatric dose management: are we doing enough for the next generation?

08:30 - 10:00  Studio 2020

**Special Focus Session**

**SF 17a**

**Colorectal liver metastasis: treatment planning and management**

**SF 17a-1 08:30**

Chairperson’s introduction  
G. Akhan; Ankara/TR (akhano@tr.net)

**Session objectives:**
1. To mention the clinical importance of colorectal cancer (CRC) liver metastasis.
2. To describe the best diagnostic methods for both the diagnosis and treatment decision.
3. To make an overview on the treatment options.
4. To discuss the importance of combined therapies.
Learning objectives:
1. To describe the best techniques and their indications for diagnosis.
2. To teach the role of transarterial treatment alternatives and their results.
3. To describe the importance of combined therapies.

SF 17a-4 09:10
Interventional radiology in oncology perspective: which therapies are recommended?
R. Iezzi; Rome/IT (roberto.iezioni@policlinicogemelli.it)

Learning objectives:
1. To mention the interventional radiological treatment options and the role of local ablation alternatives.
2. To teach the role of transarterial treatment alternatives and their results.
3. To discuss the importance of combined therapies.

SF 17a-5 09:28
Immunotherapy and the role of the radiologist
J. Podgorska; Warsaw/PL (jpodgo@gmail.com)

Learning objectives:
1. To understand the mechanisms of actions of immunotherapy.
2. To recognize different patterns of response to immunotherapy.
3. To be aware of adverse reactions related to novel drugs.

09:46
Panel discussion: The role of diagnostic and interventional radiology in diagnosis and management of colorectal liver metastasis
PC 17-4 09:12  Challenges and opportunities with subspecialisation in radiology  
C. D. Becker; Geneva/CH  
Learning objectives:  
1. To learn about the spectrum of highly subspecialised radiology.  
2. To appreciate the potential of subspecialisation.  
3. To understand the risks for radiology from turf battles (or not providing specialised services).

PC 17-5 09:30  Radiologists’ workload and risks for burnout  
B. Forster; Vancouver/CA (bruce.forster@vch.ca)  
Learning objectives:  
1. To learn about typical administrative tasks and physician/manager balance.  
2. To understand the value of analytics and efficiency optimisation.  
3. To appreciate the support by business and management experts in radiology departments.

09:48  Panel discussion: Is radiology at risk due to shortages, subspecialisation and other challenges?

08:30 - 10:00  Darwin (Room D2)  
Radiographers

RC 1714  Leadership and management in radiography

RC 1714-1/RC 1714-2 08:30  Chairpersons’ introduction  
F. Birsasteanu; Timisoara/RO  
T. Starc; Brezovica/SI  
Session objectives:  
1. To appreciate the key principles for all current and future radiographer leaders.  
2. To discuss the impact of quality leadership within profession and within departments.

RC 1714-3 08:36  A. Effective communication: a key leadership and management tool  
J. M. Nightingale; Sheffield/UK (J.J.Nightingale@shu.ac.uk)  
Learning objectives:  
1. To be aware of the theories underpinning effective communication.  
2. To understand the meaning and impact of effective communication within radiography practice.  
3. To explore which steps can be taken to improve communication techniques.

RC 1714-4 08:59  B. Leading change: key considerations and tools to motivate radiography teams in quality management  
Z. Läänelaid; Tartu/EE  
Learning objectives:  
1. To understand the key principles of change management.  
2. To be familiar with motivators relevant to radiography teams.  
3. To become aware of practical tips to support radiographers responsible for change within their professional roles.

RC 1714-5 09:22  C. Inclusive leadership: equality, diversity and inclusion  
L. A. Rainford; Dublin/IE (louise.rainford@ucd.ie)  
Learning objectives:  
1. To understand the breadth of which radiologists should reflect on inclusivity in the profession.  
2. To be familiar with the changing landscape of inclusivity in academic and clinical environments.  
3. To be familiar with specific initiatives, guidelines, and directives driving improvements in inclusivity through inclusive leadership.

09:45  Panel discussion: Developing future radiographer leaders: what support do current academic and academic leaders need?

08:30 - 10:00  Descartes (Room D3)  
Oncologic Imaging

RC 1716  Tumour response assessment in abdominal imaging  
Moderator:  
O. V. Kucheruk; Moscow/RU  
RC 1716-1 08:30  A. Size-based assessment: metrics and pitfalls  
M. D’Anastasi; Msida/MT (melvin.danastasi@gov.mt)  
Learning objectives:  
1. To learn about the current size-based assessment concepts.  
2. To understand classification strategies, including response evaluation criteria in solid tumours (RECIST).  
3. To discuss potential pitfalls of treatment response assessment based on tumour size.

RC 1716-2 08:52  B. Diffusion weighted imaging (DWI) and dynamic contrast-enhancement (DCE): opportunities  
D.-M. Koh; London/UK  
Learning objectives:  
1. To become familiar with the rationale of DWI and DCE images for tumour response assessment.  
2. To learn about the application of functional imaging strategies in abdominal imaging.  
3. To consider an integration of DWI and DCE in classification systems.

RC 1716-3 09:15  C. Nuclear medicine and molecular approaches  
C. C. Cyran; Munich/DE (clemens.cyran@med.uni-muenchen.de)  
Learning objectives:  
1. To appreciate basic concepts of nuclear medicine for response monitoring.  
2. To learn about different radionuclides for abdominal tumours.  
3. To discuss quantitative assessment strategies from nuclear medicine.

RC 1716-4 09:37  D. Immunotherapy and imaging  
D. Regge; Candiolo-Torino/IT (daniele.regge@ircc.it)  
Learning objectives:  
1. To learn about current aspects of immunotherapy in tumour response assessment.  
2. To discuss strategies for quantitative tumour monitoring in abdominal imaging.  
3. To become familiar with the pitfalls in imaging the response to immunotherapy.

08:30 - 10:00  Room G  
New Horizons Session

NH 17  MRI of the future

NH 17-1 08:30  Chairperson’s Introduction  
F. A. Gallagher; Cambridge/UK (fag1000@cam.ac.uk)  
Session objectives:  
1. To provide an overview of recent advances in MRI.  
2. To discuss potential clinical applications.  
3. To explain the challenges in translating these new approaches into patient care.
**1. To discuss the imaging anatomy of the uterus and its changes throughout life and during pregnancy.**

**2. To become familiar with the modern approach to malignant chest tumour therapy.**

**3. To learn how to differentiate clinically important complications.**

**4. To understand how to look for early signs of severe and urgent conditions.**

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**E³ 1726-3 09:00**

**B. Abdomen**

**R. Basilico**

**Chiètì/IT** (raffaelabasilico@gmail.com)

Learning objectives:

1. To learn about different approaches in modern tumour therapy.
2. To understand the radiological appearance of complications following treatment in oncologic patients.
3. To appreciate the role of different imaging modalities in further management of patients.

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**E³ 1726-4 09:25**

**C. How can interventional radiologists help in the management of oncological treatment complications?**

**K. K. Pyra**

**Lublin/PL** (k.pyra@poczta.fm)

Learning objectives:

1. To be aware of the importance of early detection of treatment associated complications in oncological therapy.
2. To learn which tumour therapy complications can be treated with interventional radiology.
3. To be familiar with interventional techniques used in the treatment of complications of different tumour therapies.

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**09:50**

Panel discussion: What is the impact of complication findings on the continued management of oncologic patients?
E³ - Rising Stars Programme: Basic Session

BS 17
Communication as a safety tool

Moderator:
A. Santos; Coimbra/PT

BS 17-1 08:30
The relevance of patient communication
U. L. Jakobsen, Odense M/DK (ulja1@ucf.dk)

Learning objectives:
1. To understand the need for effective communication to guarantee the appropriate examination of the correct patient.
2. To become familiar with various communication techniques to increase patient cooperation.
3. To be aware of the potential of communication to enhance the quality of patient services.

BS 17-2 08:55
Communication of radiation risk
J. L. Portelli; Msida/MT (jonathan.portelli@um.edu.mt)

Learning objectives:
1. To become familiar with practical tips to support effective patient risk communication.
2. To be aware of the risk communication challenges for vulnerable patients.
3. To understand the obligations of communicating risk under EU legislation.

BS 17-3 09:20
Radiographers as communication role models
D. Toonen-Bok; Groningen/NL

Learning objectives:
1. To become familiar with models of communication.
2. To be aware of radiographers’ appropriate attitudes and posture as a means of communication.
3. To be aware of how to develop and promote an optimal communication training setting for students.

09:45
Panel discussion: Communication as a tool to improve the patient experience: how can we build an effective communication culture?

SF 17b-3 09:00
Stroke in older children
T. von Kalle; Stuttgart/DE (tvonkalle@klinikum-stuttgart.de)

Learning objectives:
1. To learn about the imaging protocols used in older children presenting with stroke.
2. To discuss the aetiologies of stroke in older children.
3. To understand the stroke imaging patterns and their prognostic implications in older children.

SF 17b-4 09:25
Interventional radiology in paediatric stroke
O. Naggara; Paris/FR

Learning objectives:
1. To discuss the indications for interventions in paediatric stroke.
2. To learn about the techniques used in interventional radiology for paediatric stroke.
3. To understand the limitations and risks of interventions in children with stroke.

09:50
Panel discussion: How to organise stroke care related to age?

E³ - Advanced Course: Hot Topics in GU Cancer

E³ 1722
Early detection of prostate cancer

E³ 1722-1 08:30
Chairperson’s introduction
A. Stanzione; Naples/IT (amaldostanzione@yahoo.it)

E³ 1722-2/E³ 1722-3 08:45
A. Screening for prostate cancer: where are we now?
S. A. Sohaib; Sutton/UK
A. George; London/UK (angela.george@rmh.nhs.uk)

Learning objectives:
1. To be aware of important prostate cancer genetics and familial cancer.
2. To learn about the difference in low risk vs high risk genetic groups.
3. To be aware of the use of imaging and other biomarkers.

E³ 1722-4 09:10
B. Pre-biopsy detection and new techniques for detection in prostate cancer
S. Punwani; London/UK

Learning objectives:
1. To understand the role of multi-parametric magnetic resonance imaging (mpMRI) in tumour detection.
2. To be aware of texture features of prostate cancer.
3. To learn how texture analysis differentiates benign from malignant prostate lesions.

E³ 1722-5 09:35
C. Active surveillance: best practice
J. J. Futterer; Nijmegen/NL (jurgenfutterer@gmail.com)

Learning objectives:
1. To be familiar with case selection for active surveillance.
2. To know the frequency of imaging.
3. To understand when treatment will be commenced.
08:30 - 10:00  
**Tech Gate Auditorium**

### Cardiac

**RC 1703**  
**Cardiac imaging in structural heart disease**

**RC 1703-1 08:30**  
Chairperson's introduction  
L. Natale; Rome/IT (luigi.natale@unicatt.it)

**Session objectives:**
1. To become familiar with the concept of “structural” heart disease in modern cardiovascular medicine.
2. To get an overview about the minimally invasive treatment possibilities in structural heart diseases.
3. To learn about the requirements and possibilities of modern cardiac imaging in structural heart diseases.

**RC 1703-2 08:35**  
A. CT-guided planning of minimally invasive procedures  
R. Salgado; Antwerp/BE (r.salgado@outlook.com)

**Learning objectives:**
1. To learn about the requirements prior to minimally invasive valvular repair and other diseases.
2. To outline the most appropriate imaging protocols.
3. To gain insights into future developments in devices and minimally invasive treatments.

**RC 1703-3 08:58**  
B. Defining the optimal time to treat valvular heart disease: role of MRI  
A. Redheuil; Paris/FR

**Learning objectives:**
1. To outline the clinical problem and approach treatment decision-making in valvular heart disease.
2. To become familiar with the MRI derived imaging biomarkers in valvular heart disease.
3. To discuss the possible future role of MRI in outcome prediction in valvular heart disease.

**RC 1703-4 09:21**  
C. Follow-up after minimally invasive valvular repair  
H. Alkadhi; Zurich/CH

**Learning objectives:**
1. To become familiar with the appropriate imaging technique after minimally invasive valvular repair.
2. To learn about the different devices currently used in treatment of structural heart disease.
3. To become familiar with the normal outcomes and most common procedural complications.

**09:44**  
Panel discussion: How to face the challenges of the increasing demand for imaging evaluation in structural heart disease

10:30 - 12:00  
**Room B**

### E³ - Rising Stars Programme: Basic Session

**BS 18**  
**Cardiothoracic emergencies**  
Moderator:  
A. Santa; Sibiu/RO

**BS 18-1 10:30**  
Acute aortic syndrome  
T. Jargiello; Lublin/PL (tjargiello@interia.pl)

**Learning objectives:**
1. To become familiar with the most common aetiologies of acute aortic diseases.
2. To present current imaging techniques for evaluation of acute aortic diseases.
3. To demonstrate the most important imaging findings.

**BS 18-2 11:00**  
Pulmonary embolism  
L. Vlahos; London/UK

**Learning objectives:**
1. To review the most common pathologies leading to pulmonary embolism.
2. To present current imaging techniques for evaluation of pulmonary embolism.
3. To become familiar with the typical findings in acute and chronic pulmonary embolism.

**BS 18-3 11:30**  
Acute coronary syndrome  
R. M. Hinzpeter; Zurich/CH (Ricarda.Hinzpeter@usz.ch)

**Learning objectives:**
1. To become familiar with segmental coronary anatomy.
2. To present different techniques for assessment of acute coronary syndrome.
3. To become familiar with the typical findings of acute coronary syndrome.

10:30 - 12:00  
**Room N**

### EuroSafe Imaging Session

**EU 18**  
**Artificial intelligence for dose optimisation**

**Moderator:**  
M. Kortesniemi; Hus/FI

**EU 18-1 10:30**  
Chairperson's introduction  
M. Fachet; Magdeburg/DE (melanie.fachet@ovgu.de)

**Session objectives:**
1. To understand how artificial intelligence (AI) can help in radiation dose optimisation in medical imaging.
2. To learn about practical use cases of AI applications for radiation dose optimisation in medical imaging.
3. To appreciate potential challenges associated with the implementation of AI applications for radiation dose optimisation in medical imaging.

**EU 18-2 10:35**  
Technology using AI for radiation protection  
M. Kortesniemi; Hus/FI (mika.kortesniemi@hus.fi)

**Learning objectives:**
1. To understand the revised process of radiation protection and optimisation.
2. To understand the need for more comprehensive imaging quality data extending to the clinical level.
3. To learn how radiomics and AI may help in more clinically adjusted and quantitative optimisation.

**EU 18-3 10:55**  
What is the limit of dose reduction by artificial intelligence methods: 2D and 3D?  
C. Hoeschen; Magdeburg/DE

**Learning objectives:**
1. To name a number of very drastic claims of dose reduction using AI in x-ray based imaging.
2. To show that AI methods will, for diagnostic purposes, be limited based on physical information theory aspects, and why some approaches seem to be able to go beyond due to methodological errors.
3. To learn exemplary methods on how to detect methodological errors and construct test cases for ensuring to avoid such errors in your own research.

11:00 - 12:00  
**Room N**
**EU 18-4 11:15**

Chances and limitations of AI for nuclear medical imaging
C. Hoeschen; Magdeburg/DE

**Learning objectives:**
1. To understand the nuclear imaging processes and to identify in which steps AI can be of help.
2. To focus on some selected applications, e.g. towards reduction of the administered dose or costs of scanners.
3. To analyse possible drawbacks and bottlenecks.

11:35

Panel discussion: Towards AI for dose optimisation in medical imaging: where are we using it in clinical practice?

**Abdominal Viscera**

**RC 1801**

Imaging of the biliary system
Moderator:
P. K. Prassopoulos; Thessaloniki/GR

**RC 1801-1 10:30**

A. Magnetic resonance cholangiopancreatography (MRCP): state of the art
C. Matos; Lisbon/PT

**Learning objectives:**
1. To know the different techniques of MRCP including their advantages and disadvantages.
2. To discuss differences of MRCP at 1.5T and 3.0T.
3. To understand how to deal with pitfalls in MRCP.

**RC 1801-2 11:00**

B. Primary sclerosing cholangitis (PSC)
G. Morana; Treviso/IT (giovanni.morana@aulss2.veneto.it)

**Learning objectives:**
1. To be aware of the pathophysiological background of PSC.
2. To learn about typical and atypical imaging features of PSC.
3. To understand follow-up imaging strategies in patients with PSC.

**RC 1801-3 11:30**

C. Biliary drainage and stenting
T. K. Helmberger; Munich/DE (Thomas.Helmberger@muenchen-klinik.de)

**Learning objectives:**
1. To understand the access routes for biliary drainage and stenting.
2. To be aware of pitfalls and complications during and after biliary interventions.
3. To know the strengths and shortcomings of different imaging techniques for therapeutic control and follow-up examinations.

**Neuro**

**RC 1811**

State-of-the-art paediatric neuroradiology

**RC 1811-1 10:30**

Chairperson's introduction
M. C. Calli; Izmir/TR (cem.calli@gmail.com)

**Session objectives:**
1. To list the spectrum of applications and indications for imaging in paediatric neuroradiology.
2. To apply the appropriate image acquisition protocols for diseases in the field.
3. To appreciate the clinical relevance of imaging for the diagnostic process of neurological disorders in infants and children.

**RC 1811-2 10:35**

A. Imaging myelin maturation disorders
F. Triulzi; Milano (MI)/IT (fabiio.triulzi@unimi.it)

**Learning objectives:**
1. To describe normal and pathological patterns of myelination.
2. To understand the role of imaging with respect to narrowing the differential diagnosis and supporting the clinical diagnosis.
3. To appreciate the importance of pattern recognition for the diagnosis of myelination disorders in children.

**RC 1811-3 10:58**

B. Imaging of developmental disorders
B. B. Ertl-Wagner; Toronto, ON/CA (BirgitBettina.Ertl-Wagner@sickkids.ca)

**Learning objectives:**
1. To describe the spectrum of developmental disorders of the brain.
2. To understand the key imaging features that lead to the correct diagnosis.
3. To appreciate the importance of making a correct imaging diagnosis.

**E³ - Rising Stars Programme: Case-Based Diagnosis Training**

**CB**

Case-Based Diagnosis Training

**Moderators:**
S. Robinson; Vienna/AT
K. M. Friedrich; Vienna/AT

**CB-1 10:15**

Liver
F. Caseiro Alves; Coimbra/PT (caseiroalves@gmail.com)

**CB-2 10:24**

Neuro
D. Prayer; Vienna/AT (daniela.prayer@meduniwien.ac.at)

**CB-3 10:33**

Musculoskeletal
F. Kainberger; Vienna/AT (franz.kainberger@meduniwien.ac.at)

**CB-4 10:42**

Maxillofacial
S. Robinson; Vienna/AT (s.robinson@dzu.at)

**CB-5 10:51**

Genitourinary
M. Toepker; Vienna/AT (mt@dz10.at)

**CB-6 11:00**

Interlude: Air in the wrong place
B. Özgen Mocan; Chicago, IL/US (burcem@gmail.com)

**CB-7 11:30**

Head and neck
C. Czerny; Vienna/AT (christian.czerny@meduniwien.ac.at)

**CB-8 11:39**

Chest
H. Prosch; Vienna/AT (helmut.prosch@meduniwien.ac.at)
CB-9 11:48
Spine
K. M. Friedrich; Vienna/AT

CB-10 11:57
Gastrointestinal
W. Schima; Vienna/AT (wolfgang.schima@khgh.at)

CB-11 12:06
Breast
M. Fuchsjäger; Graz/AT (michael.fuchsjager@medunigraz.at)

10:30 - 12:00 Room F1

E³ - Advanced Course: Interactive Teaching Session for Young (and not so Young) Radiologists

E³ 1821a
Cardiac imaging: an update

E³ 1821a-1 10:30
A. Coronary artery disease - reporting and data system (CAD-RADS): a new tool for reporting coronary CT angiograms (CTAs)
B. Szilveszter; Budapest/HU (szilveszter.balint@gmail.com)

Learning objectives:
1. To be familiar with standardised reporting of coronary CTA findings.
2. To know the impact of CAD-RADS in management and treatment.

E³ 1821a-2 11:15
B. Athlete's heart
J. Bogaert; Leuven/BE (Jan.Bogaert@uzleuven.be)

Learning objectives:
1. To learn about the different entities that cause left ventricular thickening.
2. To understand the role of the different techniques in the study of this patients.

10:30 - 11:30 Coffee & Talk 3

Coffee & Talk (open forum) Session
Organised by the ESR Subcommittee on PIER

C 33
Guidance for IT in radiology: how radiologist can benefit from DIAM (Digital Imaging Adoption Model)

C 33-1 10:30
Chairperson's introduction
L. Donoso; Barcelona/ES (lodonoso@clinic.cat)

Session objectives:
1. To explain the relevance of IT in radiology.
2. To provide an overview of criteria for benchmarking.
3. To discuss the role of audit tools like DIAM.

C 33-2 10:35
Overview and update on DIAM radiology
P. Mildenberger; Mainz/DE (mildenbe@uni-mainz.de)

Learning objectives:
1. To explain the methodology of DIAM radiology.
2. To provide examples of departments' experiences with DIAM radiology.
3. To discuss further opportunities for DIAM radiology.

C 33-3 10:45
Overview and international experiences with DIAM enterprise imaging (EI)
J. Studzinski; Leipzig/DE (jstudzinski@himssanalytics.eu)

Learning objectives:
1. To explain the methodology of DIAM EI.
2. To provide examples of departments’ experiences with DIAM EI.
3. To discuss further opportunities for DIAM EI.

C 33-4 10:55
The value of DIAM Gap analyses
P. Hoogland; Utrecht/NL (phoogland@phit.nl)

Learning objectives:
1. To explain the value of DIAM in consulting radiology departments and national screening programmes.
2. To showcase the benefit of DIAM as a strategic tool for IT development.
3. To discuss the value of DIAM Gap analyses.

11:05
Open forum discussion: DIAM radiology or DIAM enterprise imaging, which one to go for?

10:30 - 12:00 Da Vinci (Room D1)

Paediatric

RC 1812
Imaging of frequent queries in children: an evidence-based approach

RC 1812-1 10:30
Chairperson's introduction
S. Franchi-Abella; Le Kremlin-Bicêtre/FR (stephanie.franchi@aphp.fr)

Session objectives:
1. To learn about four common queries for radiological investigations in children.
2. To understand the evidence-based indication for imaging and the choice of imaging modalities in these queries.
3. To discuss the importance of good collaboration with the referring clinician when selecting children for imaging and potential further workup in these queries.

RC 1812-2 10:35
A. Abdominal pain: constipation and beyond
I. Robinson; Dublin/IE (ihwrobinson@hotmail.com)

Learning objectives:
1. To learn about the most common causes of chronic abdominal pain in children.
2. To understand indications for imaging and choice of imaging modalities in paediatric abdominal pain.
3. To appreciate typical findings and 'red flag' features.

RC 1812-3 10:53
B. Respiratory tract infections
P. Ciet; Rotterdam/NL (p.ciet@erasmusmc.nl)

Learning objectives:
1. To learn about the role of imaging in childhood respiratory tract infections.
2. To understand indications for imaging and choice of imaging modalities in paediatric abdominal pain.
3. To appreciate typical findings and 'red flag' features.

RC 1812-4 11:11
C. Large and small heads: when and how to image
U. Y. Ayaz; Mersin/TR (umityasarayaz@yahoo.com)

Learning objectives:
1. To learn the indications for imaging in deviating head circumference.
2. To understand examination techniques and imaging algorithms.
3. To appreciate the most common pathologies and their clinical implications.
D. The limping child
I. Barber Martinez; Esplugues de Llobregat (Barcelona)/ES (i.barber@sjdhospitalbarcelona.org)

Learning objectives:
1. To learn about the most important differential diagnosis in a limping child.
2. To understand indications for imaging and choice of imaging modalities in a child with a limp.
3. To appreciate the most important findings and ‘red flag’ features.

10:30 - 12:00
Descartes (Room D3)
Musculoskeletal
RC 1810
Elbow imaging: from detailed anatomy to pathology
Moderator:
A. B. Rosskopf; Zurich/CH

RC 1810-1 10:30
A. The medial and lateral epicondyle
M. C. de Jonge; Amsterdam/NL (milkodejonge@gmail.com)

Learning objectives:
1. To explain the anatomical considerations and pathophysiology of abnormalities that involve the medial and lateral epicondyles of the humerus.
2. To describe the imaging findings of abnormalities that involve the medial and lateral epicondyles of the humerus.

RC 1810-2 11:00
B. Biceps and triceps
A. Tagliafico; Genoa/IT (albertotagliafico@gmail.com)

Learning objectives:
1. To explain the anatomical considerations and pathophysiology of abnormalities that involve the biceps and triceps brachii.
2. To describe the imaging findings of abnormalities that involve the biceps and triceps brachii.

RC 1810-3 11:30
C. Plicae and articular cartilage
A. Alcala-Galiano Rubio; Madrid/ES (andrearoob@hotmail.com)

Learning objectives:
1. To explain the anatomical considerations and pathophysiology of abnormalities that involve the elbow plicae and articular cartilage.
2. To describe the imaging findings of abnormalities that involve the elbow plicae and articular cartilage.

10:30 - 12:00
Darwin (Room D2)
Oncologic Imaging
RC 1816
Functional and molecular imaging techniques in oncology: how to use them in routine practice

RC 1816-1 10:30
Chairperson’s introduction: What are the problems of morphological evaluation
L. Marti-Bonmati; Valencia/ES (Luis.Marti@uv.es)

Session objectives:
1. To address the limitations of morphological imaging modalities.
2. To introduce the basic concepts of functional imaging in oncology.
3. To learn the current status of these techniques in routine clinical practice.

RC 1816-2 10:35
A. CT perfusion techniques
H. Schoellnast; Graz/AT

Learning objectives:
1. To learn about current approaches to CT perfusion.
2. To understand the basic principles behind each technique.
3. To discuss radiation exposure from CT perfusion techniques.
4. To appreciate the clinical usefulness of these techniques in routine clinical practice.

RC 1816-3 10:58
B. Functional MRI techniques
V. Goh; London/UK (vicky.goh@kcl.ac.uk)

Learning objectives:
1. To learn about different functional MRI techniques, such as diffusion and perfusion.
2. To understand the basic principles behind each technique.
3. To discuss radiation exposure from CT perfusion techniques.
4. To appreciate the clinical usefulness of these techniques in routine clinical practice.

RC 1816-4 11:21
C. Assessment by molecular imaging
J. Grimm; New York/US (grimmj@mskcc.org)

Learning objectives:
1. To learn about the basic concepts in molecular imaging.
2. To understand how molecular imaging might be integrated into patient care.
3. To discuss clinical examples of where molecular imaging is already established in clinical practice.

11:44
Panel discussion: Where are we using functional evaluations in clinical practice?
**Postgraduate Educational Programme**

**RC 1807-3** 11:00  
**B. Iodine-based contrast media in myeloma patients**  
G. Heinz; St. Pölten/AT (gertraud.heinz@stpoelten.knoe.at)  

**Learning objectives:**  
1. To learn about the relationships between iodine-based contrast media and myeloma.  
2. To understand the mechanisms of AKI in myeloma patients.  
3. To review current evidence regarding the risk of PC-AKI in myeloma patients.

**RC 1807-4** 11:15  
**C. Ongoing evidence for acute adverse reactions**  
O. Clement; Paris/FR (olivier.clement@aphp.fr)  

**Learning objectives:**  
1. To learn about the acute adverse reactions from contrast media.  
2. To understand the current evidence regarding risk factors.  
3. To illustrate the first-line treatment of acute adverse reactions.

11:40  
**Panel discussion: Towards a safer use of contrast media**

**10:30 - 12:00 Room M 1**  
**Joint Session of the ESR and EORTC**

**ESR/EORTC**  
**Advanced imaging for stratifying treatment in oligometastatic prostate cancer**  
Moderator:  
N. deSouza; Surrey/UK

**ESR/EORTC-1** 10:30  
**Chairperson's introduction**  
F. Lecouvet; Brussels/BE (frederic.lecouvet@uclouvain.be)  

**Session objectives:**  
1. To highlight the role of imaging for detecting oligometastatic prostate cancer.  
2. To introduce image-based treatment stratification.  
3. To introduce the speakers.

**ESR/EORTC-2** 10:36  
**Prostate cancer: managing the oligometastatic patient**  
M. Spahn; Zurich/CH

**Learning objectives:**  
1. To learn about the classification of oligometastatic prostate cancer.  
2. To local and systemic management options for patients with oligometastatic prostate cancer.  
3. To understand the impact on the outcome by stratifying patients for treatment.

**ESR/EORTC-3** 10:59  
**Whole-body MRI: is it ready for prime time to detect oligometastatic prostate cancer?**  
D. de Keyzer; Leuven/BE (frederik.de.keyzer@hotmail.be)  

**Learning objectives:**  
1. To learn about whole-body MRI: how to optimise the technique.  
2. To appreciate the technical challenges and limitations of the technique in prostate cancer patients.  
3. To understand how the output may be quantified and assessed.

**ESR/EORTC-4** 11:22  
**Molecular imaging for directing and delivering therapy in oligometastatic prostate cancer**  
D. E. Oprea-Lager; Amsterdam/NL (d_e_oprea@yahoo.com)  

**Learning objectives:**  
1. To learn about targeted imaging and radionuclide therapy in oligometastatic prostate cancer.  
2. To appreciate how molecular imaging may be used to stratify therapy.  
3. To understand how to devise trials that establish an evidence-based use of modern imaging techniques.

**11:45**  
**Panel discussion: How, whom and when to image oligometastatic prostate cancer?**  

**10:30 - 12:00 Room M 2**  
**Vascular**

**RC 1815**  
**Carotid disease 2.0**  
Moderator:  
V. Bérczi; Budapest/HU  

**RC 1815-1** 10:30  
**A. Carotid plaque imaging: tool or fool?**  
L. Saba; Cagliari/IT (lucasabam@gmail.com)

**Learning objectives:**  
1. To learn about radiological methods to analyse carotid plaque morphology.  
2. To critically review the influence of plaque morphology on actual treatment guidelines.  
3. To discuss the possible future role of carotid plaque imaging for treatment decision making.

**RC 1815-2** 11:00  
**B. Carotid involvement in inflammatory arterial disease**  
A. J. J. Madureira; Porto/PT

**Learning objectives:**  
1. To provide an overview about inflammatory arterial disease.  
2. To become familiar with the involvement of supraaortic arteries in inflammatory arterial disease.  
3. To learn about radiological diagnosis of supraaortic involvement in inflammatory arterial disease.

**RC 1815-3** 11:30  
**C. Carotid stent: medical history or part of the future?**  
K. A. Hausegger; Klagenfurt/AT (klaus.hausegger@kabeg.at)

**Learning objectives:**  
1. To learn about the technique of carotid stent implantation.  
2. To review current indications for carotid stent implantation.  
3. To discuss the future role of carotid stent implantation.

**10:30 - 12:00 Room M 3**  
**Emergency Imaging**

**RC 1817**  
**Acute conditions in the elderly**

**RC 1817-1** 10:30  
**Chairperson's introduction**  
N.N.

**Session objectives:**  
1. To learn the typical constellations and findings of elderly patients.  
2. To understand the potential complications connected with ageing.  
3. To appreciate direct and indirect radiological findings.

**RC 1817-2** 10:35  
**A. Confusion in the elderly: what can we expect in imaging of acute conditions?**  
M. Wykretowicz; Poznan/PL

**Learning objectives:**  
1. To become familiar with acute pathology causing confusion in the elderly.  
2. To recognise specific pathologies on acute imaging.  
3. To understand which complications we can expect in the confused elderly.
B. Grandparent has a high fever and thoracic/abdominal pain
I. Millet; Montpellier/FR

Learning objectives:
1. To become familiar with acute pathology causing high fever in the elderly.
2. To recognise which specific pathologies should be ruled out on acute chest and abdomen imaging.
3. To understand the complications we have to look for in the elderly with a high fever.

C. Postoperative complications in the elderly
F. Iacobellis; Naples/IT (iacobellisf@gmail.com)

Learning objectives:
1. To learn about the most common complications in the acute postoperative elderly.
2. To become familiar with the imaging signs of these acute postoperative complications.
3. To recognise the indications for imaging guided treatment of these postoperative complications.

Panel discussion: Imaging of the elderly patient: A forgotten task?

Chest
RC 1804
Back to basics: how to interpret a chest radiograph?

RC 1804-1 10:30
Chairperson’s introduction
R. Cesar; Golnik/SI (rok.cesar@klinika-golnik.si)

Session objectives:
1. To increase the radiologists’ confidence in chest radiography reading.
2. To recognise and interpret the typical abnormalities.
3. To understand the limitations of chest radiography.

RC 1804-2 10:35
A. A chest radiography reading guide
N. H. Strickland; London/UK

Learning objectives:
1. To learn about chest radiography quality criteria.
2. To learn about the normal features.
3. To learn which difficult areas to concentrate on.

RC 1804-3 10:52
B. Alveolar, interstitial and nodular syndromes
F. Molinari; Tourcoing/FR (francescomolinari.dr@gmail.com)

Learning objectives:
1. To learn about alveolar opacities characteristics.
2. To learn how to recognise the presence of interstitial changes.
3. To understand the chest radiography limitations for lung nodule detection.

RC 1804-4 11:09
C. Lobar atelectasis
D. Tack; Braine-L’Alleud/BE (denis.tack@skynet.be)

Learning objectives:
1. To review the signs of lobar atelectasis in frontal chest radiography.
2. To learn about the complementary role of the lateral view.
3. To explain the differences with other causes of lung opacity.

RC 1804-5 11:26
D. Pleural syndrome
A. P. Parkar; Bergen/NO (apparkar@gmail.com)

Learning objectives:
1. To learn how to identify partial pneumothorax.
2. To be able to identify signs of compressive pleural effusion.
3. To be aware of the limitations of bedside chest x-ray for pneumothorax detection.

E 1821b
Breast imaging

E 1821b-1 10:30
A. Imaging of ductal abnormalities
D. Djilas; Sremska Kamenica/RS

Learning objectives:
1. To understand the most common ductal lesions.
2. To learn how to recognise ductal pathology using different imaging modalities.
3. To discuss the importance of finding different types of ductal carcinoma in situ (DCIS).

E 1821b-2 11:15
B. Diffusion-weighted imaging (DWI) of the breast
N. Radovic; Zagreb/HR

Learning objectives:
1. To gain familiarity with the principles of DWI in breast imaging.
2. To learn how to acquire qualitative and quantitative information for lesion assessment on DWI.
3. To understand the limitations and pitfalls of DWI in clinical practice.
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Research Presentation Sessions / My Thesis in 3 Minutes / Clinical Trials in Radiology

**08:30 - 10:00 Room O**

**Oncologic Imaging**

**RPS 116**

Oncologic imaging in genitourinary: kidney and prostate, advanced topics

Moderators:
- G. Frauenfelder; Rome/IT
- H.-P. Schlemmer; Heidelberg/DE

**RPS 116-K** 08:30 Keynote lecture

H. Hiroaka; New York, NY/US

**RPS 116-1** 08:40 Upgrading to significant disease with monitoring prostate MRI scans and repeat biopsy in men on active surveillance for low-risk prostate cancer: are confirmatory biopsies still necessary?

D. F. Osse, F. J. Drost, J. F. M. Verbeek, M. J. Roobol, J. G. Scoots; Rotterdam/NL

**RPS 116-2** 08:46 ECE score: a new MRI scale to evaluate and stratify the risk of extracapsular extension in patients with prostate cancer

S. Varelo, M. Gatti, F. Gentile, I. Ruggirello, L. Allois, A. Carisio, C. Dianzani, P. Fonio, R. Faletti; Turin/IT

**RPS 116-3** 08:52 Influence of the minimum b-value on prostate cancer assessment using conventional DWI and DKI models

N. Adubiero1, L. Nogueira1, R. G. Nunes2, H. A. Ferreira3, E. F. C. Ribeiro4, J. M. La Fuente1; Porto/PT, Lisbon/PT

**RPS 116-4** 08:58 Characterising the appearance of clinically significant prostate cancer on pre-surgical MRI in a radiopathomic study

M. Rusu, C. Kunder, R. Fan, R. West, P. Ghanouni, J. Brooks, G. Sonn; Stanford/US

**RPS 116-5** 09:04 Multiparametric MRI characteristics of cribriform growth in prostate cancer in comparison to other Gleason sub-patterns

G. Ghobadi1, P. J. van Houw1, E. Bekers2, I. G. Scoots3, H. G. van der Poel4, F. J. Post5, L. Bentzen6, K. Haustermans3, U. van der Heide7; Amsterdam/NL, Rotterdam/NL, Aarhus/DK, Leuven/BE

**RPS 116-6** 09:10 Automated artificial intelligence-based measurements of biomarkers in 18F-choline PET/CT are associated with disease-specific survival of high-risk prostate cancer patients

E. Polymeri1, H. Kjölhede1, O. Enqvist1, J. Ulén2, M. H. Poulsen3, J. A. Simonsen1, A. Johnson1, P. F. Hallund-Carlson1, L. Edenbrandt1, Gothenburg/SE, Malmö/SE, Ödendahl/ÖD

**RPS 116-7** 09:16 Diffusion-weighted imaging in prostate cancer: a descriptor of tumour habitat differentiates high-risk and low-risk lesions

A. Bevilacqua1, M. Mottola1, F. Ferroni2, D. Barone2, G. Gavelli2; Bologna/IT, Modena/IT

**RPS 116-8** 09:22 Can PSMA PET CT rule out all relapses of prostate cancer?

M. Garcia Fontes1, L. Valuntas1, M. Rodriguez Parodi1, G. Dos Santos1, V. Gigirey1, O. Alonso1, Montraveido/UY

**RPS 116-9** 09:28 VERDICT MRI fractional intravoxel ultrasound volume assessment could help avoid unnecessary biopsies in men assessed for prostate cancer with multi-parametric MRI

S. Singh1, H. Rogers, E. W. Johnston, B. Kanber, C. M. Moore, D. Atkinson, E. Panagiotaki, S. Punwani; London/UK

**RPS 116-10** 09:34 Renal oncocytoma versus chromophobe renal cell carcinoma: radiomics uncovering the secrets in MRI images

N. Gündüz1, M. B. Eser1, A. Yildirim, A. Kabaalioglu; Istanbul/TR

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**08:30 - 10:00 Room Y**

**Head and Neck**

**RPS 108**

Advanced imaging in head and neck tumours

Moderators:
- C. Czerny; Vienna/AT
- T. D’Angelo; Messina/IT

**RPS 108-K** 08:30 Keynote lecture

S. Bird; London/UK

**RPS 108-1** 08:40 The value of venous phase dual-layer spectral CT in the visualisation of laryngeal carcinoma: a preliminary study

R. Hong, Z. Yang, M. Zou; Guangzhou/CN

**RPS 108-2** 08:46 Primary tumour and lymph node radiomics assessment in PET-CT in non-metastatic nasopharyngeal carcinoma patients

C. Xie1, Y. Chen2; V. Vardhanabhuti1; Hong Kong/HK, Beijing/CN

**RPS 108-3** 08:52 Machine learning re-sampling techniques in imbalanced datasets improve prognostication performance in a multicentre cohort of head and neck cancer patients using a PET-based radiomics model

C. Xie1, J. Ho1, H. Pang1, R. Du, K. Chiu1, E. Lee, V. Vardhanabhuti1; Hong Kong/CN

**RPS 108-4** 08:58 Correlation between histogram-based DCE-MRI parameters and 18F-FDG PET values in oropharyngeal squamous cell carcinoma: evaluation in primary tumours and metastatic nodes

A. Vidiri1, E. Gangemi2, E. Ruberto, R. Pasqualoni, R. Scultò, A. Farneti, M. Benevolo, R. Pellini, S. Marzi; Rome/IT

**RPS 108-5** 09:04 A comparison among gamma distribution, intravoxel incoherent motion, and mono-exponential models of orofacial tumours: a preliminary study

W. Panyarak1, T. Chikui1, K. Tokumori1, Y. Yamashita1, K. Yoshiura2; Fukuoka/JP

**RPS 108-6** 09:10 Magnetic resonance imaging (MRI) driven cytology: from a comparison of diagnostic accuracy to a proposal for a new diagnostic algorithm in the preoperative work-up of parotid lesions

G. Guazzarotti1, E. Venturini, R. Mellone, A. de Gaspari, D. Di Santo, F. de Cobelli; Milan/IT
RPS 108-7 09:16
Prognostic role of diffusion-weighted and dynamic contrast-enhanced MRI in loco-regionally advanced head and neck cancer treated with concomitant chemoradiotherapy
M. Garbaś1, S. Bisdas2, R. Strojan1, K. Surlan Popovic1; 1Ljubljana/SI, 2London/UK

RPS 108-8 09:22
Correlation between oropharyngeal squamous cell carcinoma and human papilloma virus: MRI volumetric texture analysis
L. Bertana1, A. Florio1, N. Landini1, A. Menegaldo1, D. Caruso1, P. Boscolo Rizzo1, A. C. Frigo1, A. Lagni1, G. Morana1; 1Revisio/IT, 2Rome/IT, 3Padua/IT

RPS 108-9 09:28
Histogram analysis parameters derived from DCE-MRI in head and neck squamous cell cancer: associations with microvessel density
H.-J. Meyer1, G. Hamera1, A. K. Höhn1, L. Leifels1, A. Surov1; 1Leipzig/DE, 2Ulm/DE

RPS 108-10 09:34
Parallel imaging with and without compressed sensing: utility for head and neck MR imaging in patients with different diseases
H. Ikeda1, Y. Ohno1, K. Murayama1, K. Yamamoto1, A. Iwase1, T. Fukuba1, D. Tabata1, M. Ikeda1, H. Toyama1; 1Toyoake/JP, 2Otawara/JP

RPS 108-11 09:40
Comparison between simultaneous multi-slice and integrated slice-by-slice shimming readout-segmented echo-planar imaging in head and neck tumors
T. Su, Y. Chen, Z. Xu, Z. Zhang, Z. Jin, Beijing/

RPS 108-12 09:46
Low-tube voltage 80-kVp neck CT with an adaptive statistical iterative reconstruction (ASIR)-V algorithm: preliminary results in the evaluation of the loco-regional extension of head and neck cancer
C. Giannitto1, G. Mercante1, B. Fiamengo1, G. Spriano1, L. Balzarini1; 1Rozzano/IT

RPS 108-13 09:52
MRI accuracy in the detection of optic nerve invasion in retinoblastomas: a radio-pathologic correlation

RPS 108-14 09:56
The characterisation of the stellar detector and admire iterative reconstruction using a channelised hotelling observer and noise power spectrum metric
C. Ghetti1, O. Ortenzia1, A. D’alessio1, L. Noferini1; 1Parma/IT, 2Novara/IT, 3Arezzo/IT

RPS 108-15 09:06
Threshold-dependent dual-energy performance and spectral separation in a clinical whole-body photon-counting CT
S. Sawall1, L. Klein, C. Amato, E. Wehrse, J. Maier, H.-P. Schlemmer, C. H. Zienert, S. Heinze, M. Kachelrieß, Heidelberg/DE

RPS 113-5 08:54
Development of an articulated anthropomorphic 3D-printed arm phantom for image quality and dosimetry optimisation of CT protocols
O. V. Vishchenkova1, H. Ruitenbeek2, M. Boonekamp1, M. Fusaglia1, I. Hernandez-Giron1; 1Leiden/NL, 2Eindhoven/NL, Amsterdam/NL

RPS 113-6 09:00
The characterisation of the stellar detector and admire iterative reconstruction using a channelised hotelling observer and noise power spectrum metric
C. Ghetti1, O. Ortenzia1, A. D’alessio1, L. Noferini1; 1Parma/IT, 2Novara/IT, 3Arezzo/IT

RPS 113-7 09:06
Does patient off-centring impact the accuracy of dual-energy CT-based iodine quantification in liver tumours?
C. S. Schmidt, B. Baessler, D. N. Nakhostin, H. Alkadhi, A. Euler; 1Zurich/CH

RPS 113-9 09:18
A 3D generalisation of a detectability index in computed tomography: a feasible approach?
R. Villa, N. Parucincli, M. Signoriello, E. de Ponti; Monza/IT

RPS 113-10 09:24
CT imaging texture analysis: evaluation of variability sources in the different steps of radiomic workflow
F. Calderoni1, C. de Mattia1, F. Rizzetto2, P. E. Colombo1, A. Vanzulli2, A. Torresin1; 1Milan/IT, 2Rho/IT, 3Segrate/IT

RPS 113-11 09:30
Stable and harmonisable radiomics features: a guide to robust radiomics analysis
A. Ibrahim1, H. C. Woodruff1, S. Primakov1, R. Granzier1, R. Leijenaar1, J. E. Wildberger1, F. Mottaghy2, P. Lambin1; 1Maastricht/NL, 2Aachen/DE

RPS 113-12 09:36
CT imaging texture analysis: evaluation of the effect of reconstruction algorithms and kernels by different vendors
F. Calderoni1, C. de Mattia1, P. E. Colombo1, A. Vanzulli2, G. Feliciani1, A. Sarnelli1, A. Torresin1; 1Milan/IT, 2Segrate/IT, 3Heldol/IT, 4Forl/IT

RPS 113-13 09:42
The evaluation of CT image quality with patient-mimicking phantoms: the development of phantoms with anatomic detail and low-contrast lesions for detectability experiments

RPS 113-14 09:48
Systematic CT protocol optimisation: how to improve patient safety with available CT techniques

RPS 113-15 09:54
The interplay between radiation dose, convolution kernel, and advanced CT reconstructions
A. Hasegawa1, T. Pan2; 1Chapel Hill/US, 2Houston, TX/US

Physics in Medical Imaging
RPS 113 Advances in CT
Moderators:
N. Saltybaeva; Zug/CH
O. Rampado; Turin/IT

RPS 113-1 08:30
Physical evaluation of a novel ultra-high-resolution CT scanner
L. J. Oostveen1, K. Boedeker2, M. Brink1, M. M. Prokop1, F. de Lange1, C. Mattosinho; 1Ljubljana/SI, 2Leiden/NL

RPS 113-2 08:36
Context-sensitive ultra-high-resolution bone imaging in whole-body photon-counting CT
L. Klein, E. Wehrse, C. Amato, C. H. Zienert, M. Uhrig, S. Heinze, H.-P. Schlemmer, M. Kachelrieß, S. Sawall; Heidelberg/DE

RPS 113-3 08:42
Kernel considerations for high-resolution photon-counting CT: dose reduction versus spatial resolution
L. Klein, J. Hardt, A. Byl, E. Wehrse, S. Heinze, M. Uhrig, H.-P. Schlemmer, M. Kachelrieß, S. Sawall; Heidelberg/DE

RPS 113-4 08:48
Dedicated metal artefact reduction for photon-counting CT
A. Byl1, L. Klein, J. Hardt, E. Wehrse, H.-P. Schlemmer, S. Heinze, M. Uhrig, S. Sawall, M. Kachelrieß, Heidelberg/DE
Breast

RPS 102
Mammography and breast ultrasound: technical advances

Moderators:
C. S. Balleyguier; Villejuif/FR
N. Healy; Cambridge/UK

RPS 102-1 08:30
Detection of micro-calciﬁcations of breast lesion on ultrasound elastography
S. Sampanangi; Y. Kumarswamy; S. Swamy; M. Ashok Kumar; A. A. R. Kesari; I. Desai; N. K. Jain; N. Reddy; Bangalore/IN, Bikaner/IN

RPS 102-2 08:36
Acoustic radiation force impulse elastography as an alternative to diffusion-weighted imaging for the characterisation of breast lesions
P. Kapetas; P. Clauzier; S. Viganò; T. H. Helbich; P. A. T. Baltzer; Vienna/AT, Cernusco Sul Naviglio/IT

RPS 102-3 08:42
Shear wave elastography stiffness as an independent predictor of axillary lymph node metastases in patients with invasive breast cancer

RPS 102-4 08:48
Combination use of quantitative parameters for shear wave elastography and superb microvascular imaging to evaluate breast masses
E. J. Lee; Y.-W. Chang; Seoul/KR

RPS 102-5 08:54
What is the most predictive parameter in shear wave elastography to differentiate breast cancer and to predict tumour characteristics and immunohistochemical subtypes?
H. Kim; J. Lee; B. J. Kang; S. H. Kim; Seoul/KR

RPS 102-6 09:00
DIMASSOS: a German multi-centre trial for density-indicated mammography sonography screening
S. H. Heywang-Köbrunner; A. Hacker; M. Hertlein; C. Mieskes; E. Mieskes; S. Elsner; A. Katalinic; Munich/DE, Lübeck/DE

RPS 102-7 09:06
Sonoelastography in the evaluation of fibrocystic breast disease
N. Jain; R. Rastogi; Moradabad/IN

RPS 102-8 09:12
Does image fusion technique improve the sonoographic and histopathologic detection rate of conventional B-mode MRI-detected breast lesions?
S. Nakanji; K. Fujii; Y. Mouri; J. Kousaka; T. Ando; M. Goto; K. Suzuki; Aichi/JP, Nagakute/JP

RPS 102-9 09:18
Real-time MRI-US imaging fusion technique for breast lesion characterisation
A. Abate; R. Giovannazzi; C. Di Bella; S. de Beni; S. D'onofrio; M. Cerese;o; G. Quercues; V. Besostri; R. Corso; Lesmo/IT, Monza/IT
Esaote/IT, Pavia/IT

RPS 102-10 09:24
Digital breast tomosynthesis versus MRI in the detection and loco-regional presurgical staging of breast cancer: correlation with breast density and background parenchymal enhancement
S. Messing; A. Orlando; S. Busalacchi; L. Spatafora; G. Milia; F. Midiri; R. Ienzi; M. Midiri; T. V. Bartolotta; Palermo/IT

RPS 102-11 09:30
Reduction of pressure sensor artifacts in the simultaneous acquisition of wide-angle breast tomosynthesis and mechanical imaging
P. Baki; M. Dusterl; A. D. A. Maidment; S. Zackrisson; A. Tingberg; Philadelphia/US, Malmö/SE

Musculoskeletal

RPS 110
Cartilage, bone marrow oedema, tissue and body imaging

Moderators:
N.N.
E. Vassalou; Iraklion/GR

RPS 110-1 08:30
Sub-regional morphological assessment of normal and degenerative articular cartilage
R. Khandelwal; A. Kharat; K. Saoji; A. Jaju; D. Kumar; Pune/IN, Bangalore/IN

RPS 110-2 08:36
The evaluation of cartilage degeneration using quantitative ultrashort echo time magnetisation transfer (UTE-MT): a feasibility study
J. Yang; H. Shao; Y. Ma; L. Wan; J. Du; G. Tang; Shanghai/CN, San Diego/US

RPS 110-3 08:42
Quantitative cartilage mapping using synthetic MR sequences: a comparative study of magnetic resonance image compilation (MAGiC) cartilage mapping and multi-echo T2 cartilage mapping
S. Rajan; V. K. Venugopal; M. Murugavel; V. Mahajan; H. Mahajan; New Delhi/IN

RPS 110-4 08:48
Regional bone mineral density assessed by statistical parametric mapping in patients with and without reoperation following instrumented lumbar spinal fusion: a case-control study
M. T. Löffler; A. Valentinitsch; C. Zimmer; Y.-M. Ryan; J. S. Kirschke; Munich/DE

RPS 110-5 08:54
The diagnostic accuracy of colour-coded virtual noncalcium dual-energy CT for the depiction of traumatic bone marrow oedema in sacral insufﬁciency fractures in comparison to MRI
C. Boo; I. Yel; L. Lenga; S. S. Martin; K. Eichler; R. Hammerstingl; T. J. Vogl; M. H. Albrect; Frankfurt am Main/DE

RPS 110-6 09:00
The effectiveness of methotrexate in the management of localised scleroderma (morphea) according to an ultrasound activity score
C. Vel-Kellet; R. Meza-Romero; C. Moli-Manzur; C. Ramirez-Cornejo; A. Wortsman; Santiago/CL
RPS 105-7 09:06
Bone marrow oedema in the non-traumatic hip: high accuracy of dual-energy CT with water-hydroxyapatite decomposition imaging
W. Son1, C. Park1, H. S. Jeong1, Y. S. Song1, I. S. Lee1; ‘Yangsan/KR, 2Busan/KR

RPS 110-8 09:12
Early functional and morphological changes of calf muscles in delayed onset muscle soreness (DOMS) assessed with 7T MRI
P. Heiß1, R. Janka, M. S. May, W. Wuest, T. Hotfiel, M. Uder, A. Nagel, F. W. Roemer; Erlangen/DE

RPS 109-9 09:18
Clinical usefulness of cross-sectional imaging modalities in grading the severity of sarcopenia in lung cirrhosis patients and its impact on morbidity and mortality
H. A. Kamal, N. E. M. A. El Liethy; Cairo/EG

RPS 110-10 09:24
Low skeletal muscle mass is a predictor of hospitalisation length in patients with a sternal fracture and concomitant injuries
H. G. Yavaş, A. Akçay, F. Ufuk; Denizli/TR

RPS 111-11 09:30
The assessment of intramuscular tissue perfusion in PRICE therapy using contrast-enhanced ultrasound (CEUS)
R. Heiß, M. Hoppe1, C. Lutter3, R. Forst1, M. S. May1, W. Wuest1, P. D. M. Engelhardt1, C. Grim1, T. Hotfiel1; Erlangen/DE, 2Osнabrück/DE, 3Rostock/DE

RPS 110-13 09:36
Osteophytes, osteochondrosis, and a sclerotic aorta: to use or not to use lumbar spine dual-energy x-ray absorptiometry (DXA)?
M. Radeva1, A. Malich1, N. Valou3, A. Pfeil1, J. Papageorgiou1; 1Nordhausen/DE, 2Heidelberg/DE, 3Jena/DE

RPS 110-14 09:42
MRI lumbosacral spine: is the workload really justified? An audit of indications and referral patterns at a tertiary care hospital
A. Faryad, A. Mansoor, M. Masood; Lahore/PK

RPS 110-15 09:48
Synthetic imaging MAGIC (magnetic resonance image compilation) applications beyond the brain
R. Vadapalli1, A. S. Vadapalli2; 1Hyderabad/IN, 2London/UK

08:30 - 10:00 Room M 2

Artificial Intelligence and Machine Learning

RPS 105
Artificial intelligence and machine learning of the lungs

Moderators:
O. Weinheimer; Heidelberg/DE
L. Topff; Amsterdam/NL

RPS 105-K 08:30
Keynote lecture
N.N.

RPS 105-1 08:40
Deep learning to increase lung cancer detection in chest x-rays: a retrospective cohort analysis of national lung screening trial participants
H. Yoo1; K. H. Kim1, S. Park1, M. Kalra2, 1Seoul/KR, 2Boston, MA/US

RPS 105-2 08:46
AI-based non-small cell lung cancer detection and segmentation on CT images with RECIST functionality
S. Primakov1, A. Ibrahim1, S. Sundulleanu1, G. Wu1, H. Gietma1, L. Hendriks1, O. Morin1, H. C. Woodruff1, P. Lambin1; 1Maastricht/NL, 2San Francisco/US

RPS 105-3 08:52
Automated detection of primary lung cancer of all stages and associated metastases on FDG-PET/CT using three retina U-Net algorithms
T. H. Winkert1, P. Jäger1, J. Bremerich1, G. Sommer1, B. Steiltjes1, S. Yang1, K. H. Maier-Hein3, A. W. Sauter3, 1Basel/CH, 2Heidelberg/DE

RPS 105-4 08:58
Evolving U-Net architecture for lung cancer segmentation
S. Thulasi Seetha1, K. Driessens2, H. C. Woodruff1, U. Pastorino1, E. Bertocchi1, P. Lambin1; 1Milan/IT, 2Maastricht/NL

RPS 105-5 09:04
The effectiveness of deep learning combined with multiple tumour-related antigen autotubodies to diagnose lung cancers at TO-T4 stages
Q. Meng1, J. Ding1, X. J. Chen2; Zhengzhou/CN, 1Beijing/CN

RPS 105-6 09:10
Lung screening assistance: how to cut down the false-positive rate and detect lung cancer earlier (a retrospective study)
S. Lopez1, P. Pillard2, Y. Diascorni2, B. Padovani1; 1Nice/FR, 2Palaiseau/FR

RPS 105-7 09:16
Impact of computed tomography reconstruction kernel selection on the performance of deep learning based lung nodule detection
S. K. Verma1, S. Vaidya1, K. Vaidhya2, D. S. Mahra2, K. C. Kalva3, A. Chunduri1, S. Dhawan2; 1New Delhi/IN, 2Bengaluru/IN, 3New Delhi/IN

RPS 105-8 09:22
The influence of kernel reconstruction and nodule size in computer-aided detection (CAD) of lung nodules
A. Patterna Nuin1, I. Soriano Aguadero, P. Malmierca Ordoqui1, A. C. Igual Rouilleault1, L. Garcia Del Barrio1, J. Larrache1, J. C. Pueyo Villoslada1, G. Bastarrika Alemañ1, Pamplona/ES

RPS 105-9 09:28
A comparison of lung nodule detection sensitivity of deep learning algorithms in comparison with 3 radiologists of varying experience levels
K. C. Kalva1, S. Vaidya1, V. K. Venugopal2, S. Rajan2, P. S. Shad2, V. Mahajan2, H. Mahajan2, A. Raj1, S. Upadhyay1; 1Bengaluru/IN, 2New Delhi/IN, 3New Delhi/IN

RPS 105-10 09:34
Classification of lung opacities in supine chest radiographs: artificial intelligence approach (external algorithm evaluation) versus a radiological assessment
J. Rueckel1, W. G. Kunz1, B. Hoppe1, M. Notohamiprojdjo1, F. Meinel2, C. C. Cyran1, M. Ingrisch1, J. Ricke1, B. O. T. Sabel1, Munich/DE, 1Tübingen/DE, 2Rostock/DE

RPS 105-11 09:40
Takeaways from the validation of an AI-based malignancy likelihood estimation for lung cancer screening when used on routine CT studies in a tertiary care hospital
V. Chaudhry1, V. Saxena1, S. Vaidya1, D. S. Mahra1, K. Vaidhya2, A. Chunduri1, B. Aggarwal1; 1Delhi/IN, 2Bengaluru/IN, 3New Delhi/IN

RPS 105-12 09:46
Deep learning-based automatic biomarkers extraction from chest CT in diffuse interstitial lung diseases: a correlation study with pulmonary function tests
M. Colevray1, P.-J. Lartaud, O. Nempent, T. K. Y. Broussaud, V. Cottin, L. Bousset; Lyons/FR

RPS 105-13 09:52
Automatic pleural effusion detection on chest x-ray as a triage tool
J. J. Visser1, M. Rossius1, Y. Blinder1, M. Cohen-Sfady2, C. Brestd1, E. Ziv1, A. Akseirol-Baillin1, E. Elnekave1, E. Goz1, E. Ziv1, R. Wities1; 1Rotterdam/NL, 2Kibbutz Shefayim/IL, 3Petach Tikva/IL, 4Shefayim/IL
**Interventional Radiology**

**RPS 109**

**Liver malignancies: HCC and metastases**

Moderators:
E. Pinto; Liverpool/UK
N.N.

**RPS 109-1** 08:30
 Palliative ablation by CT brachytherapy in hepatic metastatic NET
F. Feldhaus1, H. Jann1, M. Jonczyk1, G. Wiemers1, U. Fehrenbach1, M. Pavel1, B. Gebauer1, B. Wiedenmann1, T. Denecke1; Berlin/DE, Leipzig/DE

**RPS 109-2** 08:36
 Ultrasound fusion imaging in the percutaneous ablation of focal liver malignancies
A. Drudi, A. Lucareli, A. Beleu, A. Giaretta, G. Rizzo, S. Conci, M. D'Omoprio; Verona/IT

**RPS 109-3** 08:42
 Transcatheter arterial chemoembolisation of liver metastases by degradable starch microspheres (DSM-TACE) loaded with different chemotherapeutic drugs: a retrospective single-center analysis
R. Marcello, G. Marcello, G. Assegnati, D. Konda, E. Pofi; Rome/IT

**RPS 109-4** 08:48
 Real-time CT thermometry during hepatic radiofrequency ablation: an investigation of the correlation between CT number shift, tissue temperature, and feasibility in a clinical setting

**RPS 109-5** 08:54
 The role of intra-arterial [177]Lu-DOTATATE therapy in the treatment of hepatic metastasis from neuroendocrine tumours
M. Rajasekaran, I. Subbanna, V. Bhargavi, J. Moideen; Bangalore/IN

**RPS 109-6** 09:00
 Introduction and early experience with percutaneous microwave ablation in Croatia: our first 150 cases
L. Novosel; Zagreb/HR

**RPS 109-7** 09:06
 Contrast-enhanced ultrasound-guided feeding artery ablation as an add-on to percutaneous radiofrequency ablation for hepatocellular carcinoma: technical feasibility and therapeutic outcomes
X. Li, M. Xu, X. Xie; Guangzhou/CN

**RPS 109-8** 09:12
 The role of intravoxel incoherent motion (iIVM) MRI imaging in the response evaluation of hepatocellular carcinoma after transarterial chemoembolisation (TACE)
M. R. Bursupalle, V. Jineesh, A. Ayyappan, A. Alex; Trivandrum/IN

**RPS 109-9** 09:18
 Yttrium-90 transarterial radioembolisation in advanced-stage HCC: the impact of portal vein thrombosis on survival
L. D'acieron, F. Somma, V. Stoaia, R. D'angelo, F. Fiore; Naples/IT

**RPS 109-10** 09:24
 Balloon-occluded microwave ablation plus balloon-occluded TACE in patients with a single large HCC: preliminary results
A. Tancrilli, R. Iezzi, A. Posà, F. Carchesio, A. Gasbarrini, R. Manfredi; Rome/IT

**RPS 109-11** 09:30
 The treatment of hepatocellular carcinoma (HCC) using thermal ablation: microwave ablation (MWA) versus laser-induced thermotherapy (LITT) regarding local tumour control, side-effects, and survival rates
T. J. Vogl, H. Adwan, N.-E. A. Nour-Eldin, T. Gruber-Rough; Frankfurt am Main/DE

**RPS 109-12** 09:54
 Radiofrequency ablation versus repeat resection for recurrent hepatocellular carcinoma (≤5 cm) after initial curative resection
X. Zhao; Jinan/CN

**RPS 109-13** 09:36
 Percutaneous thermal ablation of colorectal liver metastases: CT radiomic features of the surrounding liver parenchyma as predictors of local tumour progression
F. Fumarola1, M. Calandri1, V. Giannini1, D. Regge1, P. Fonio1, A. Veltri1, C. Gazzera1; Turin/IT, Candiolo/IT, Candiolo-Torino/IT, Orbassano/IT

**RPS 109-14** 09:42
 Advanced cholangiocarcinoma with data from a tertiary referral centre: best supportive care versus TACE versus systemic chemotherapy
T. J. Vogl, C. Koch, W. Bechtain, A. Schnitzbauer, N. Filman, T. Gruber-Rough, S. Zeuzem, O. Waidmann, J. Trojan; Frankfurt am Main/DE

**RPS 109-15** 09:48
 Percutaneous thermal ablation of neuroendocrine liver metastases
F. Darvijeh, F. Ullø1, M. Calandri1, B. C. Odisio1, S. Yevich1, A. Veltri1, P. Fonio1, C. Gazzera1; Turin/IT, Houston/US

**Radiographers**

**RPS 214**

**Image quality considerations and challenges: radiography and mammography**

Moderators:
U. Bick; Berlin/DE
K. Borg Grima; Naxxar/MT

**RPS 214-1** 10:30
 The effect of humour as a cognitive technique for decreasing anxiety during mammography
A. M. A. Oliveira1, A. F. Abrantes2, L. P. V. Ribeiro1, R. P. P. Almeida2, A. D. M. Ribeiro1, S. Rodrigues1, K. B. Azevedo2; Porto/MO, Porto/PT, Parchal/PT

**RPS 214-2** 10:36
 Improving the performance of mammographers in a breast cancer screening program: the ASL Latina experience
S. Pacifici1, G. P. Fanelli1, N. Ravazzolo1, A. Tomei1, P. Bellardini1; Rome/IT, Borgo Carso Latina/IT, Latina/IT

**RPS 214-3** 10:42
 Supplementary imaging procedures for women with dense breasts undergoing breast cancer screening: a systematic review
D. Mizzi1, P. H. Hogg2, A. England3, J. F. Kelly4, F. Zarbi1, N. Mercieca4; Middlesbrough/UK, Manchester/UK, Chester/UK, Gozo/MT

**RPS 214-4** 10:48
 The impact of self-compression on breast dose and thickness in mammography
P. Bравar1, N. Мekis2, E. Alukić2; Zagreb/HR, Parchal/PT

**RPS 214-5** 10:54
 The eye-tracking system as an assessment tool for mammography positioning
H. Yamashina1, A. Yagahara1, T. Suzuki2, K. Ogasawara1; Sapporo/JP, Iwamizawa/JP

**RPS 214-6** 11:00
 The influence of digital breast tomosynthesis on PGMI classification of 2D screening-detected cancers and baseline 2D screening examinations of interval cancer (IC) in the Oslo tomosynthesis screening trial
R. Gullien1, A. E. Haakull1, A. S. Bakken2, J.-G. Andersen2; Oslo/NO, Royken/NO
RPS 214-7 11:06
Retrospective PGMI classifies and examines compression force (CF) of screening-detected cancers and mammograms prior to diagnosis interval cancer from the Oslo tomosynthesis screening trial
B. Guillier1, A. E. Haakull2, A. S. Bakken3, J.-G. Andersen4; Oslo/NO, 1Røyken/NO

RPS 214-8 11:12
Identification of image quality criteria for the assessment of mammography images with breast implants using the Delphi method by radiographers and radiologists
C. S. D. Reis1, I. Gremion, N. Richli; Lausanne/CH

RPS 214-9 11:18
Does radiographer assessment of image quality align with that required for diagnosis?
R. G. L. Decoster, R. Toomey, M.-L. Ryan; Dublin/IE

RPS 214-10 11:24
Are image quality judgements by radiographers guided by a global signal or "gist"?

RPS 214-11 11:30
Radiographers’ visual acuity performance can impact image quality evaluation
C. S. D. Reis1, F. A. P. S. Soares2, G. M. Bartoli3, K. Dastani4, Z. Dhkanimi4, A. Hussain5, D. Kroode6, M. F. M. McEntee7, J. D. Thompson8, N. Mekis9; Lausanne/CH, 1Florianopolis/BR, 2Salford/UK, 3Bloomfontein/ZA, 4Derby/UK, 5Groningen/NL, 6Cork/IE, 7Ljubljana/SI

RPS 214-12 11:36
Quality assessment of paediatric chest radiographs: differences between radiologists and radiographers
C. I. D. C. T. Martinez1, F. M. Nogueira2, J. Santos1; Lisbon/PT, 2Coimbra/PT

RPS 214-13 11:42
A comparison of the success rate and radiation burden between radiography students when imaging the thoracic and lumbar spine
R. Vlčužnik, N. Mekis; Ljubljana/SI

RPS 214-14 11:48
An investigation of how exposure faults can be accounted for in the reject analysis of digital radiographs
C. McKeown, K. Matthews; Dublin/IE

RPS 214-15 11:54
A reject analysis targeted to identify the techniques of undergraduate radiographers that may benefit from further development
C. Lynch, K. Matthews; Dublin/IE

10:30 - 12:00  Room F1

Neuro

RPS 211
Spine and nerves

Moderators:
H. Ozdemir; Adana/TR
S. Gerevini; Bergamo/IT

RPS 211-1 10:30
A new insight of brain reorganisation in the sensorimotor cortex after spinal cord injury
G. Chen, N. Chen, Z. Wang; Beijing/CN

RPS 211-2 10:36
Paediatric retroclival epidural haematoma in the acute trauma setting: a sign of tectorial membrane stripping injury
P. Fiester, D. Rao, S. Andreou, E. Soule, J. Patel; Jacksonville, FL, US,

RPS 211-3 10:42
Impact of incomplete investigation of suspected cauda equina syndrome before referral to specialist spinal units
R. Duarte Armingao1, D. Fountain2, S. Davies3, D. Ballard4; 1London/UK, 2Cambridge/UK
**ECR 2020**

**My Thesis in 3 Minutes**

**MyT3 2**

**Breast**

**Moderators:**
1. I. Gheonea; Craiova/RO
2. S. Zackrisson; Malmö/SE

**MyT3 2-1** 10:30

_Axillary lymph node status in BI-RADS 4-5 female patients: a management cornerstone. Can ultrasound elastography help?_

S. T. Hamed, O. M. M. N. Nada, O. Zakaria, D. Elmesidy, M. A. G. A. M. Eissa; Cairo/EG

**MyT3 2-2** 10:34

_Mammographic density and risk factors collected by direct interview in breast interval and screen-detected cancers_

L. La Corte; Laghiettoi, D. Caramelia; Iacconi; S. Atzori; Pisa/IT, Carrara/IT

**MyT3 2-3** 10:38

_MRI and PET/CT in parallel for the detection of axillary lymph node metastases in breast cancer patients: a meta-analysis_

Z. Zhang, H. Luo, J. Zhang; Chengdu/CN

**MyT3 2-4** 10:42

_A preliminary study of the combination of ultrafast and abbreviated dynamic contrast-enhanced breast MRI_

S. Jeong; S. M. Ha, H. S. Ahn, S. Woo, H.-C. Shin; Seoul/KR

**MyT3 2-5** 10:46

_Missed breast lesions in mammography: what factors are we overlooking?_

M. Malik; Islamabad/PK

**MyT3 2-6** 10:50

_Breast lesions of uncertain malignant potential (B3): can different vacuum-assisted biopsy needles (11G vs 8G) affect the outcome?_

A. Franconeri; C. Bellini; G. Bicchierai; D. de Benedetto; F. Di Naro; J. Nori; V. Miele; Pisa/IT, Florence/IT

**MyT3 2-7** 10:54

_Breast arterial calcification on mammography does not predict coronary artery disease on invasive coronary angiography_

A. Fathah; Riyadh/SA

**MyT3 2-8** 10:58

_Diagnostic performance of unenhanced T2-weighted and IVIM DW MRI for axillary lymph nodal staging in breast cancer_

Y. Liu; H. Luo, C. Wang, M. Wang, J. Ren; Chengdu/CN

**MyT3 2-9** 11:02

_Role of ultrasound vs contrast-enhanced mammography in the characterisation of lesions in dense breasts_

R. R. M. Abdel Gawad; Cairo/EG

**MyT3 2-10** 11:06

_Outcome of B3 breast lesions with 14G needle core biopsy (NCB): 18-years monocentric experience_

C. Bellini; A. Franconeri; G. Bicchierai; D. de Benedetto; F. Di Naro; J. Nori; V. Miele; Florence/IT, Pavia/IT

**MyT3 2-11** 11:10

_Whole-lesion texture analysis of apparent diffusion coefficients for monitoring early response in patients with breast cancer undergoing concurrent chemotherapy_

W. Wang, J. Cheng; Zhengzhou/CN

**MyT3 2-12** 11:14

_Digital breast tomosynthesis-guided vacuum-assisted breast biopsy (DBT-VABB): comparing two different ways of local anaesthesia administration_

M. A. Orsi; F. Leone, M. Cellina, G. Oliva; Milan/IT

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**Cardiac**

**RPS 203**

_Myocardial perfusion imaging and infarct characterisation: diagnosis and prognosis_

**Moderators:**
1. T. Emrich; Mainz/DE
2. R. Vliegenthart; Groningen/NL

**RPS 203-1** 10:30

_Improved sensitivity in diagnosing myocardial infarction using frequency selective nonlinear blending in computed tomography_

E. Stock; R. Schwarz, J. Herrmann, C. Artzner, K. Nikolaou, M. Bongers; Tübingen/DE

**RPS 203-2** 10:36

_Myocardial perfusion status in patients with coronary chronic total occlusion: evaluated by 16-cm wide detector CT_

K. Liu, Z. Li; Chengdu/CN

**RPS 203-3** 10:42

_Extracranial volume fraction and infarct size determined by LGE CMR predict left ventricular remodeling within the first 6 months following an acute myocardial infarction_

RPS 203-4 10:48
The prognostic value of the myocardial salvage index measured by magnetic resonance imaging after ST-segment elevation myocardial infarction: a systematic review and meta-regression analysis
B. Kendziora1, M. Dewey, Berlin/DE

RPS 203-6 10:54
Normal range of quantified myocardial perfusion with whole heart coverage CT scanner in subjects with normal coronary artery
Y. Gao, N. Zhao, W. Ma, W. Geng, B. Lyu, Beijing/CN

RPS 203-7 11:00
A comparison of iodine distribution characteristics in rest and stress first-pass perfusion of healthy myocardium as obtained by a dual-layer CT scanner
S. Boccalini1, S. A. Si-Mohamed2, L. Hanquier1, L. Boussel2, D. Revel1, P. C. Douek1, Lyons/FR, 1Brom/FR

RPS 203-8 11:06
Histological validation of cardiac magnetic resonance T1 mapping for evaluating the myocardial alterations on day 1, day 7, and 3 months in a swine model with myocardial infarction
L. Zhang, Y.-K. Guo, C. Fu, H.-Y. Xu, M.-X. Yang, R. Xu, L. Chen; Chengdu/CN

RPS 203-9 11:12
Fractal analysis of perfusion using 4D dynamic CT to differentiate microvascular and macrovascular ischemia
F. Michaelakis1, S. Nakamura2, H. Ota1, H. Sakuma1, M. Dewey1, K. Kitagawa3; Berlin/DE, 1Tsu/JP, 2Sendai/JP

RPS 203-10 11:18
Diagnosing and predicting performance of myocardial injury in acute STEMI based on texture analysis of non-contrast-enhanced T1-mapping
Q. Ma1, Y. Hou1, X. Lu1, J. Wang2, X. Wang1; Shenyang/CN, 1Beijing/CN

RPS 203-11 11:24
Sequential strategy including FFR corp, plus stress-CTP impacts on the management of patients with stable chest pain: the stress-CTP RIPCORD study
A. Baggiano1, M. Guglielmo1, G. Muscogiuri1, L. Fusini1, A. Del Torto1, A. I. Guaraldi1, A. L. Bartorelli1, M. Pepi1, G. Pontone1; Milan/IT, 1Bari/IT

RPS 203-12 11:30
Invisible to the eye: radiomics revealing alterations in apparently healthy myocardial tissue of patients with ischemic disease
A. Cavaliere1, L. Baffoni1, R. Matta1, B. Giorgi1, E. Quaia1, M. de Lazzari1, M. Perazzolo Marra1, C. Giraudo2; Padua/IT, 1Bologna/IT

RPS 203-13 11:36
DWI sequence in cardiac imaging: a valid contrast-free substitute for late gadolinium enhancement (LGE) and T2-STIR in patients with acute myocardial infarction
C. Marzi1, C. Martin1, N. Gaibazzi1, P. Barletta1, S. De Santis1, R. Netto1; Rome/IT, 1Bari/IT

RPS 203-14 11:42
A comparison of qualitative tagging and late gadolinium enhancement with PET- CT in the evaluation of myocardial viability
M. Y. A. Meideenbawa Abdulmajed1, U. Debi1, V. Bhatia2, A. Sood1, R. M. Kumar, M. S. Sandhu; Chandigarh/IN

RPS 203-15 11:48
Myocardial perfusion recovery after steroid therapy predicts cardiac events in cardiac sarcoidosis
K. Koyanaga1, M. Naya2, T. Aikawa1, O. Manabe1, S. Furuya2, M. Kuzume1, S. Tsuneta1, N. Oyama-Manabe1, T. Anzai1; ’Sapporo, Hokkaido/JP, 1Sapporo/JP

RPS 212-1 10:30
Intravoxel incoherent motion imaging for the study of placental microstructure in intrauterine growth restriction: a prenatal in vivo MR study
A. Antonelli1, S. Capuani1, G. Ercolani1, S. Bernardo2, B. Kuehn2, R. Grimm3, A. de Rinaldis4, L. Mangano5, C. Catalano6; Rome/IT, 1Erlangen/DE

RPS 212-2 10:36
Is there a worldwide standard normal foetal lung volume by MRI measurement?
S. Sefidbakht1, A. Dehdashtian1, S. Bagheri1, F. Bagheri1, N. Rahimirad1, P. Keshavarz1, B. Bijnia2; ’Shiraz/IR, 1Sacramento, CA/US

RPS 212-3 10:42
CMR imaging derived systemic to pulmonary collateral flow exceeding 20% of stroke volume considerably reduces antegrade pulmonary flow in univentricular heart patients
A. Yanovsky1, L. Martelius1, J. Salminen, T. Ojala; Helsinki/FI

RPS 212-4 10:48
Left atrial dysfunction in children and adolescents with severe obesity: a cardiac magnetic resonance imaging myocardial strain study
E. Xu1, N. Kachenoura2, V. della Valle1, B. Dubern1, A. Karsenty1, R. Layese2, J. Lamy1, A. Redheuil1, E. Blondiaux1; Paris/FR, 1Créteil/FR

RPS 212-5 10:54
Chest x-ray or lung ultrasound in neonatal lung disease?
S. Deftereos1, S. Soutzitzi2; Alexandroupolis/GR

RPS 212-6 11:00
Chronic aspiration in children: a retrospective study of CT findings and videofluoroscopy correlations
R. Meshaka1, S. Zimmels1, A. Kelly1, T. R. Semple; London/UK

RPS 212-7 11:06
The upper airway after open airway surgery for laryngotracheal stenosis: a magnetic resonance study
B. Elders1, B. Pullens1, H. A. W. M. Tiddens1, P. A. Wielopolski1, P. Ciet1; Rotterdam/NL

RPS 212-8 11:12
3Tesla lung MRI in children with pneumonia
S. Yücel1, T. Aycicek2, M. Ceyhan-Bilgici2, O. S. Dincer1, L. Tomak2; Istanbul/TR

RPS 212-9 11:18
Acoustic radiation force impulse imaging for predicting liver cirrhosis in infants with biliary atresia
Y. Cheo1, S. Gu1, Y. Zhu1; Shanghai/CN

RPS 212-10 11:24
ARFI elastography of the liver and spleen in patients with Gaucher disease type 1: correlations with clinical data and markers of disease severity
A. Lollert1, C. Hoffmann1, M. Lache1, J. König1, M. Brixius-Huth1, J. Henniermann1, C. Düben1, G. Staat1, Mainz/DE

RPS 212-11 11:30
Diffusion-weighted imaging for the differentiation of biliary atresia and grading of hepatic fibrosis in infants
J. Kim1, H. J. Shin1, H. Yoon1, S. J. Han1, H. Koh1, M.-J. Kim, M.-J. Lee; Seoul/KR
RPS 212-12 Postoperative hepatic artery ultrasound evaluation of liver transplants in children: the results from a tertiary-care paediatric hospital
A. Antón-Jiménez, A. Coma, J. Piqueras Pardellans, L. Riera Soler, L. Riaza Martín, E. Vazquez Mendez, Barcelona/ES

RPS 212-13 Dynamic MR lymphangiography to find the location of chylus leakage in children
W. M. Klein, B. Verhoeven, F. Udink Ten Cate, L. J. Schultzke Koöl, Nijmegen/NL

RPS 212-14 A comparison of image quality between single- and split-filter dual-energy paediatric abdominal CTs for radiation dose optimisation: a phantom study
K. Zhang, Y. Dou, W. Shen, Tianjin/CN, Beijing/CN

RPS 212-15 A comparison of image quality and radiation dose between split-filter dual-energy images and single-energy images in paediatric abdominal CTs
Y. Gao, Y. Chen, Y. Dai; Guangzhou/CN

14:00 - 15:30 Room X

Neuro

RPS 311 Gadolinium retention and neurovascular imaging
Moderators: N.N.
Z. T. Kincses; Szeged/HU

RPS 311-K Keynote lecture
D. Stojanov; Nis/RS

RPS 311-1 Gadolinium retention in the human body: the awareness of radiologists and impacts on daily radiology practice
M. E. Adin; Istanbul/TR

RPS 311-2 MRI evidence of progressive gadolinium deposition in bone during monthly triple-dose gadolinium CE-MRIs and its relationship to hypophosphataemia

RPS 311-3 Gadolinium-based contrast agent in the aqueous chamber of infantile healthy eyes promptly after intraocular injection

RPS 311-4 High signal intensity in the globus pallidus (GP) and dentate nucleus (DN) on unenhanced TI-weighted magnetic resonance images: an assessment of two macrocyclic gadolinium-based agents
S. Rozenblatt, J. Luckman; Tel Aviv/IL, Ramat Hasharon/IL

RPS 311-5 The absence of T1 hyperintensity in the brain of high-risk iron-loaded thalassaemia patients after multiple administrations of high-dose gadobutrol
A. Meloni, D. Montanaro, M. C. Resta, P. Keilberg, L. Pistoia, T. Casini, S. de Cori, V. Positano, A. Pepe; Pisa/IT, Bari/IT, Florence/IT

RPS 311-6 No changes in T1 relaxometry after a mean of eleven administrations of gadobutrol

RPS 311-7 A comparison of the effects of gadolinium-based contrast agents on neuronal cells
M. A. Erdogan, M. Apaydin, G. Armanag, D. Taskiran; Izmir/TR

RPS 311-8 Dynamic susceptibility MR perfusion imaging of the brain: not just a question of contrast molarity
V. Panara, P. Chiachiaietta, M. Parenti, M. Cairo; Chieti/IT

RPS 311-9 Impact of the novel contrast agent gadopentetol on decision making in patients with brain metastases

RPS 311-10 The value of 4D-MR angiography at 3T compared to DSA for the follow-up of treated arterial arteriovenous fistulas
B. Dissaux, F. Eugene, J. Ognard, J.-C. Gentic, J.-C. Ferre; Brest/FR, Rennes/FR

RPS 311-11 The application of neurovascular 4Dflow MRI in the assessment of haemodynamics on patients with Moyamoya disease
J.-G. Zhang, Z. Li; Chengdu/CN

RPS 311-12 Deep learning-based automated detection of cerebral aneurysms: a comparison of reading performance between radiologists and neurosurgeons

14:00 - 15:30 Coffee & Talk 1

Genitourinary

RPS 307 Deep learning and radiomics in prostate imaging
Moderators:
T. Durmus; Berlin/DE
P. A. B. Puech; Lille/FR

RPS 307-1 Value of histogram analysis from a stretched exponential model on diffusion-weighted imaging in evaluating clinically significant prostate cancer
K. E. Kim, C. K. Kim; Seoul/KR

RPS 307-2 Individualised prostate cancer risk assessment using MRI-based deep learning compared to multivariate risk modelling including PI-RADSv2: a decision curve analysis

RPS 307-3 Independent validation of deep learning-based automated patient assessment on prostate MRI: the influence of image co-registration

RPS 307-4 Pi-RADS 3 lesions: role of prostate MRI texture analysis in the identification of prostate cancer
R. Cannella, D. Giambelluca, F. Verrucchi, A. Comelli, A. Pavone, L. Salvaggio, M. Midiri, R. Lagalla, G. Salvaggio; Palermo/IT

RPS 307-5 Added value of quantitative DCE imaging on mpMRI prediction of stage pT3 prostate cancer
A. Croese, P. Bonato, L. Cereser, G. Comò, C. Zuzani, R. Girometti; Udine/IT
RPS 307-6 14:30
Comparison of first-order radiomic parameters to the mean ADC for the prediction of clinically significant cancer from prostate MRI
X. Wang, V. Schütz, M. Görtzi, D. Tichy, P. D. A. Stenzinger, M. Hohenfeller, H.-P. Schlemmer, D. Bonekamp; Heidelberg/DE, Hirschberg/DE

RPS 307-7 14:36
Added-value of dynamic contrast-enhanced (DCE) MRI in a lesion-based quantitative analysis of multiparametric prostate MRI in consecutive at-risk patients

RPS 307-8 14:42
Texture analysis on multiparametric prostate magnetic resonance imaging (mpMRI) for evaluation of prostate cancer (PCa) aggressiveness
I. Ruggirello, M. Gatti, A. Motta, V. Giannini, M. Petracchini, S. Cirillo, D. Regge, P. Ponio, R. Faletti; Turnin/IT, Candidolo/IT

RPS 307-9 14:48
Radiomics in DW-MRI detects non-clinically significant prostate cancer and reduces overtreatment
A. Bevilacqua, M. Mottola, F. Ferroni, G. Gavelli, D. Barone; Bologna/IT, Heidelberg/DE

RPS 307-10 14:54
The role of dynamic contrast-enhanced sequences on the learning curve in prostate MRI interpretation: a comparison with biparametric examinations in readers with different experiences
L. Panebianco, M. Martino, A. Izzo, G. Bianchi, F. Formiconi, C. Giani ramero, A. Pace, R. Manetta, C. Masiocchi; L’Aquila/IT

RPS 307-11 15:00
A multicentre-multivendor study to evaluate the generalisability of a radiomics model for classifying prostate cancer
A. de Pascale, F. Russo, A. Veltrì, D. Regge; Turnin/IT, Candidolo/IT

RPS 307-12 15:06
Multi-parametric magnetic resonance imaging of prostate cancer: correlation between Ktrans, a Gleason score, and a PI-RADS score
E. Lucertini, D. Caruso, M. Zerunian, T. Biondi, N. Panvini, T. K. Y. Broussaud; Turnin/IT, Candidolo/IT

RPS 307-13 15:12
A comparison between biparametric and multiparametric prostate MRI: added value of DCE in PCa detection using new PI-RADS v 2.1 classification
A. Grecchi, M. C. Ambrosetti, A. Mazzaro, G. Zamboni, G. Mansueto; Verona/IT

RPS 307-14 15:18
A stepwise logistic regression model based on MRI radiomic features to predict histopathological aggressiveness of prostate cancer (PCa)
G. Stranier, D. Basle, M. Calandri, V. Giannini, S. Mazzetti, A. de Pascale, F. Russo, A. Veltrì, D. Regge; Turnin/IT, Candidolo/IT

RPS 307-15 15:24
Assessment of prostate cancer aggressiveness using deep learning and radiomic data: a pilot study
L. Mercatelli, E. Bertelli, M. A. Pascali, S. Colantonio, D. Germanese, A. Baruci, C. Cauda, S. Agostini, V. Miele; Florence/IT, Pisa/IT

RPS 307-16 15:30
Cardiac

RPS 303 Advanced CT and MR techniques
Moderators:
G. De Rubeis; Rome/IT
K. Gruszczyńska; Katowice/PL

RPS 303-1 14:00
Comparison of free breathing 3D mDIXON with 3D inversion recovery and 3D spectral presaturation with inversion recovery sequences for the assessment of late gadolinium enhancement

RPS 303-2 14:06
Late gadolinium enhancement at right ventricular insertion points in subjects with structurally normal hearts is prognostically irrelevant
C. Grigolato, A. Pantano, L. Ait-Al, A. Barisone, G. Todiere, G. Festa, G. Sinagri, G. D. Aquaro; Pisa/IT, Thiene/IT, Massa/IT

RPS 303-3 14:12
Correcting versus resolving respiratory motion in free-breathing whole-heart MRA: a comparison in patients with thoracic aortic disease

RPS 303-4 14:18
Delayed enhancement of papillary muscles on cardiac MRI in patients with mitral regurgitation

RPS 303-5 14:24
Compressed sensing 4D flow assessment of aortic and pulmonary artery flow volumes

RPS 303-6 14:30
Compressed sensing 4D Flow MRI for the assessment of the left ventricular stroke volume

RPS 303-7 14:36
Value of T2 mapping in patients with chronic thromboembolic pulmonary hypertension (CTEPH) before and after balloon pulmonary angioplasty (BPA)

RPS 303-8 14:42
The impact of a new deep learning denoising algorithm on LGE images
G. Muscogiuri, S. Dell’aversana, F. Ricci, M. Gatti, A. I. Guari, M. Guiglioni, A. Baggiano, M. Pepi, G. Pontone, Milan/IT, Naples/IT, Rome/IT, Turin/IT, Bari (BA)/IT

RPS 303-9 14:48
4D-flow assessment of early-diastolic mitral annular peak tissue velocity: a comparison with echocardiography
C. Reiter, G. Reiter, C. Kräuter, E. Kolesnik, A. Schmidt, D. Scherr, A. Triebil, M. Fuchsjaeger, U. Reiter; Graz/AT

RPS 303-10 14:54
Prognostic validity of coronary flow reserve (CFR) derived from mapping-stress MRI in the risk stratification of chronic coronary syndrome patients
P. Palumbo, E. Cannizzaro, C. de Cataldo, S. Torlone, M. C. de Donato, A. Corridore, M. Latessa, E. Di Cesare, C. Masiocchi; L’Aquila/IT

14:00 - 15:30 Coffee & Talk 2
CTiR 3-12 14:45
Discussant
M. Benea-Uriega; Barcelona/ES

CTiR 3-7 15:00
MRI screening in women with extremely dense breasts: patient and MRI characteristics to distinguish between false-positives and true-positives
B. M. Den Dekker, M. F. Bakker, S. V. de Lange, R. M. Pijnappel, W. B. Veldhuis, C. van Gils; Utrecht/NL

CTiR 3-8 15:10
Discussant
U. Bick; Berlin/DE

14:00 - 15:30 Descartes (Room D3)

Paediatric

RPS 312 New insights in paediatric head and neck imaging
Moderators:
I. L. Stépán-Buksakowska; Prague/CZ
E. Vazquez Mendez; Barcelona/ES

RPS 312-1 14:00
Neurodevelopmental outcomes of posterior fossa anomalies diagnosed by foetal MRI

RPS 312-2 14:06
Foetal optic structures: a postmortem MRI study

RPS 312-3 14:12
Paediatric orbital masses: the value of adding diffusion-weighted imaging to conventional MRI in lesion categorisation

RPS 312-4 14:18
Neurosensorily hearing loss in children with Zika virus microcephaly and brain MRI evaluation
N. Anaissi Rocha Pessoa, M. de Carvalho Leal, S. Caldas Da Silva Neto, L. Ferreira Muniz, P. M. Parizel, M. D. F. Vasco Aragao, Recife/BR, Perth/AU

RPS 312-5 14:24
Chronic rhinosinusitis in patients with primary ciliary dyskinesia: comparison with findings in cystic fibrosis

RPS 312-6 14:30
The paediatric voice after airway reconstruction on MRI
B. Elders, M. Hakkesteegt, B. Pullens, H. A. W. M. Tiddens, P. A. Wielopolski, P. Clet; Rotterdam/NL

RPS 312-7 14:36
A preliminary study assessing a novel neonatal brain MRI in the neonatal ICU
N. Berkovitz, E. Ben-David, A. Pais, D. Rosenbaum, Y. Kassierer, A. Ben Nun; Yad-Binyamin/IL, Jerusalem/IL, Shoham/IL, New York/US

RPS 312-8 14:42
Cerebral white matter alterations in very preterm infants: the contribution of 2D shear-wave elastography
Abdominal Viscera

RPS 301a

Pancreas and biliary disease

Moderators:
M. C. Ambrosetti; Verona/IT
S. K. Puri; New Delhi/IN

RPS 301a-1 14:00
Magnetic resonance (MR) in the identification of mural nodules of intraductal papillary mucinous neoplasms (IPMN) of the pancreas

RPS 301a-2 14:06
Branch-duct intraductal papillary mucinous neoplasms of the pancreas: a 10 year follow-up of the safety of a surveillance MRI protocol
P. Boraschi, G. Tarantini, F. M. Donati, R. Cervelli, R. Scalise, D. Caramella; Pisa/IT

RPS 301a-3 14:12
Magnetic resonance morphologic features predict progression of incidental pancreatic cystic lesions during follow-up
S. Zhu, S.-X. Rao; 1Shanghai/CN

RPS 301a-4 14:18
The value of diffusion-weighted imaging in the grading of pancreatic neuroendocrine neoplasms
W. Mingliang, Z. Mengsu; Shanghai/CN

RPS 301a-5 14:24
The relationship between the portal radiomics score and G1/G2 non-functional pancreatic neuroendocrine tumours
Y. Bian, H. Zhang, X. Fang, L. Wang, J. Lu, G. Jin; Shanghai/CN

RPS 301a-6 14:30
Diffusion-weighted imaging of autoimmune pancreatitis: how good is it as an imaging biomarker for disease activity?
L. Zhu, P. Asbach, T. Denecke, B. Hamm, Z. Jiu; 1Beijing/ CN, 2Berlin/DE, 3Leipzig/DE

RPS 301a-7 14:36
Differentiation of pancreatic adenocarcinoma from surrounding pancreatic tissue using the shortened MR protocol: histogram analysis of T2W signal intensity and ADC
O. T. Sarac, A. Djuric-Stefanovic; Belgrade/R S

RPS 301a-8 14:42
Imaging-related delays in the diagnosis of pancreatic ductal adenocarcinoma: a multi-centered population-based observational study
J. Kang, S. Clarke, M. Abdolell, R. Ramjeesingh, J. I. Payne, A. Costa; Halifax/CA

RPS 301a-9 14:48
The prevalence and stability predictors of pancreatic lesions screened by non-contrast whole-body MRI
C. Xue, G. Lo, O. L. Wong, J. Yuan; 1Hong Kong/HK, 2Happy Valley/CN, 3Hong Kong/HK

RPS 301a-10 14:54
Quantitative magnetic resonance imaging of the pancreas in patients with type-2 diabetes mellitus
T. H. Waddell, D. Halliday, A. Dennis, H. R. Wilman, R. Nicholls, M. Kelly, R. Banerjee; Oxford/UK

RPS 301a-11 15:00
The relationship between pancreas divisum subtypes, bile duct variation, and portal vein variation
M. K. Simsek, C. Altay, H. A. Ozgul, I. Basar Akin, M. Secil; Izmir/TR

RPS 301a-12 15:06
Camera-based respiratory triggering improves image quality of 3D magnetic resonance cholangiopancreatography

RPS 301a-13 15:12
Clinical feasibility of compress SENSE 3D MR cholangiopancreatography (CS-MRCP) with real-time tracking (vital eye) in pancreaticobiliary disorders: a preliminary study
M. He, J. Xu, X. Wang, J. Wang, H. Xue, Z. Jiu; Beijing/CN

RPS 301a-14 15:18
Gadolinium-acid-enhanced MRI in primary sclerosing cholangitis: added value in liver function evaluation and monitoring of disease progression
A. Elkilany, T. Müller, A. Fischer, T. Denecke, D. Geisel; 1Berlin/DE, 2Leipzig/DE

RPS 301a-15 15:24
Hepatobiliary phase gadoxetic acid excretion in gadoxetic acid-enhanced MRI as a prognostic factor in patients with primary sclerosing cholangitis
A. Elkilany, T. Müller, A. Fischer, T. Denecke, D. Geisel; 1Berlin/DE, 2Leipzig/DE

14:00 - 15:30 Tech Gate Auditorium

Abdominal Viscera

RPS 301b

The role of imaging in hepatocellular carcinoma (HCC) management
Moderators:
M. C. Ambrosetti; Verona/IT
R. Sartoris; Clichy/F R

RPS 301b-K 14:00
Keynote lecture
A. Ba-Ssalamah; Vienna/AT
My Thesis in 3 Minutes

MyT3 4

Vascular

Moderators:
T. Bilhim; Lisbon/PT
P. Chabrot; Clermont-Ferrand/FR

MyT3 4-1
16:00
Clinical applications of partial splenic artery embolisation
A. M. Teama, Kafrelsheikh/EG

MyT3 4-2
16:04
Endovascular management of cerebral arteriovenous malformations
M. T. N. Mekhall, A. Bessaï, T. Elsearfy, M. Taaema, F. Youssef, Zagazig/EG, Cairo/EG

MyT3 4-3
16:08
Evaluating the vessel wall permeability of abdominal aortic aneurysm using 3D dynamic contrast-enhanced MRI
B. Tian, X. Tian, Z. Shi, J. Lu; Shanghai/CN

MyT3 4-4
16:12
Evaluation of different keV-settings in dual-energy CT angiography of the siphon of internal carotid artery using noise-optimised virtual monoenergetic imaging
J. Fu, Y. Zeng, J. Zhang; Shanghai/CN

MyT3 4-5
16:16
The use of near-infrared spectroscopy (NIRS) to measure vascular haemodynamics within bone tissue in vivo
R. Meertens, K. Knapp, F. Casanova, W. D. Strain; Exeter/UK

MyT3 4-6
16:20
How we see congenital portosystemic shunts through CT-angiography
M. Akyüz, I. Akdulum, M. Öztürk, Ö. L. Boyunağa, A. Sigirdi; Ankara/TR, Aksaray/TR, Malatya/TR

MyT3 4-7
16:24
Resting-state functional connectivity in patients with asymptomatic stenoses of the internal carotid arteries
A. Lepelkhina; St. Petersburg/RU

MyT3 4-8
16:28
Angiographic analysis on posterior fossa haemorrhages and vascular malformations using computed tomographic angiography and digital subtraction angiography
V. Selvarumugan, V. Singh, R. V. Phadke, Z. Neyaz, Lucknow/IN

MyT3 4-9
16:32
A multidisciplinary approach to the diagnosis and treatment of kaposiform hemangioendothelioma in newborn children
S. Riebienkov, I. Benzar; Kiel/DE, Ankara/TR

MyT3 4-10
16:36
Diagnostic yield of CT angiography in penetrating lower extremity trauma
A. P. Le Roux, A. M. Du Plessis, R. D. Pitcher; Cape Town/ZA

MyT3 4-11
16:40
Optimisation of window settings on traditional and noise-optimised virtual monoenergetic imaging for displaying intracranial arterial aneurysm in dual-energy CT angiography
Y. Zeng, X. Cao, H. Li, J. Fu, J. Zhang; Shanghai/CN

MyT3 4-12
16:44
Comparison of moving bed contrast-enhanced MR angiography vs digital subtraction angiography in peripheral arterial disease
F. Ozgul, Afyonkarahisar/TR

MyT3 4-13
16:48
Quality control studies of dynamic contrast-enhanced 3-dimensional magnetic resonance angiography for spinal vascular
J. Cao, L. Cui; Shenyang/CN

16:00 - 17:30 Room Y

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MyT3 4-14 16:52
Contrast-enhanced perfusion patterns and serum lipid signatures specific of vulnerable plaque in predicting stroke: a cohort study of carotid stenosis in Chinese patients
H. Yunqian, W. Zhu, M. Chen; Shanghai/CN

MyT3 4-15 16:56
Non-contrast MR venography in the diagnosis of post-thrombotic iliac vein obstruction and extravascular compression
V. Shebryakov, O. Karpov, Y. Stoyko, O. Bronov, M. Yashkin, D. Lutarevich; Moscow/RU

MyT3 4-16 17:00
Carotid stenosis evaluation by 128-slice CT: comparison of NASCET, ECST and CC grading methods, and comparison with colour-Doppler ultrasonography
F. M. H. Rinberg, A. Lammertink; Groningen/NL

MyT3 4-17 17:04
Prediction of early haematoma expansion in cerebral haemorrhage based on non-contrast CT
L. Song, T. Guo; J. Wang; H. Ren; Xiangyang/CN; Xiang/CN

MyT3 4-18 17:08
Application of FLAIR vascular hyperintensity-DWI mismatch in ischaemic stroke, depending on semi-quantitative DWI-Alberta stroke programme early CT score
L. Song, J. Wang; Xiangyang/CN; Xiang/CN

MyT3 4-19 17:12
Factors resulting in the increase of the total dose received by the patient during endovascular procedures performed within the region of the central nervous system
S. Modlińska, M. M. Cebula; J. Komenda; J. Baron; Katowice/PL; Czeladź/PL

MyT3 4-20 17:16
Non-contrast magnetic resonance angiography in renal artery assessment
S. Sethu Madhavan; V. Bhat; K. Kannur; Bengaluru/IN

16:00 - 17:30  Room M 4

**Neuro**

**RPS 411**

Paediatric neuroimaging and neuroanatomy
Moderators:
N. Plakhotina; St. Petersburg/RU
N.N.

*RPS 411-1* 16:00
Long term neurodevelopmental outcomes of children with foetal isolated vermal anomaly
L. Ben-Sira, R. Shperling, L.-T. Pratt; Tel-Aviv/IL

*RPS 411-2* 16:06
Imaging the foetal brainstem: an in vivo MRI study
G. G. Dovjak, P. Brugger, G. M. Gruber, D. Prayer, G. Kasprian; Vienna/AT

*RPS 411-3* 16:12
An apparent diffusion coefficient of different areas of the brain in growth-restricted foetuses
B. Moradi, Z. Alibegi Nezhad, N. Seyed Saadat, M. A. Kazemi, M. Shirazi, A. Borhani; Tehran/IR; Alibegi Nezhad/IR

*RPS 411-4* 16:18
Widespread cortical dyslamination in epilepsy patients with periventricular heterotopia and focal cortical dysplasia
E. Lotan, O. Tomer, I. Tavori, I. Blatt; H. Goldberg-Stern, C. Hoffmann; Petah Tikva/IL; Tel Hashomer/IL, Tel Aviv/IL

*RPS 411-5* 16:24
Isolated and subtle abnormality of the corpus callosum: correlation with postnatal clinical outcome
L. Ben-Sira, N. Feldman, L.-T. Pratt, K. Kradjen, G. Malinger; Tel-Aviv/IL; Holon/IL

*RPS 411-6* 16:30
Differentiation of genetic subtypes of medulloblastomas using qualitative and quantitative (ADC) MRI features
J. Reis, H. Zimmermann, V. Ruf, N. Thon, T. Liebig, R. Forbrig; Munich/DE

*RPS 411-7* 16:36
Imaging in neonatal encephalitis due to Chikungunya vertical transmission
N. Sachdev, S. Sana, A. Prasad, Y. Singh; New Delhi/IN

*RPS 411-8* 16:42
Orbito-facial dysmorphology in patients with different degrees of trigonocephaly severity: quantitative morpho-volumetric analysis in infants with non-syndromic metopic craniosynostosis
A. Marrazzo, R. Calandrelli, M. Panfili, F. Pilato, L. Massimi, C. Colosimo; Taranto/IT; Rome/IT

*RPS 411-9* 16:48
Dural venous sinuses and subarachnoid spaces in foetuses with MMC correlate with sac morphology: implications for the pathophysiology of abnormal brain development
I. Shelef, N. Boniel, L. L. Tenel, R. Goldstein, N. Gupta, O. Glenn; Beer Sheva/IL; Winnipeg, MB/CA; San Francisco, CA/US

*RPS 411-10* 16:54
MRI anatomical variants of the head of the hippocampus
E. Piccirilli, L. Gentile, V. Panara, V. Maruotti, P. Mattei, M. Caulo; Chieti/IT

*RPS 411-11* 17:00
Age-related differences in subfields and subregions of the hippocampus in normal volunteers
N. Ananyeva, E. Andreiev, R. Ezhova, T. Salomatina, L. Akhmerova; St. Petersburg/RU

*RPS 411-12* 17:06
The measurement of hippocampal dimensions versus hippocampal volumetry via the automated segmentation on MRI for the validation of hippocampal sclerosis
X. C. Liew, K. Rahmat, N. Ramli, F. B. Fadzli, K. S. Lim; Kuala Lumpur/MY; Lembah Pantai/MY

*RPS 411-13* 17:12
Brain size matters: a comparative study between Indian and caucasian brains and intracranial volumes
J. Desai, A. Joshi, R. Kulkarni, L. Poonamallee, A. Sakegaonkar; Pune/IN; New York/US

*RPS 411-14* 17:18
Applying clinical 7 Tesla MRI scanners for postmortem examinations in forensic medicine
D. Gascho, E. Deininger-Czermak, N. Zoelch, M. Thali; Zurich/CH

*RPS 411-15* 17:24
Ti optimisation for postmortem FLAIR MRI: a pilot study
C. Bruguier, J.-F. Knebel, V. Magnin, P. Genet, V. Dunet; Lausanne/CH
MyT3 5
Musculoskeletal

Moderators:
N.N.

MyT3 5-1 08:30
Diffusion-weighted magnetic resonance imaging of the normal bone marrow in children and the effects of local and systemic cancer therapies
E. Page, E. Clarke, A. Mackinnon, H. Mandevelle, S. Vaidya, N. Desouza; London/UK

MyT3 5-2 08:34
Application of “Trigger Drop” in patients enrolled for percutaneous treatment of symptomatic discal hernia: preliminary results
A. Paladini1, I. Percivale, A. Carriero, M. Spinetta, G. Guzzardi1, F. Midiri, M. Cernigliaro, S. Bocci, D. Zagaria; Novara/IT, Santhià/IT

MyT3 5-3 08:38
Staging of osteochondral lesions of the talus: comparison of cone-beam CT arthrography with MR imaging
J. Desimpel1, F. M. H. M. Vanhoenacker1; Antwerp/BE, Duffel/BE

MyT3 5-4 08:42
Diagnostic accuracy of dual-energy CT in assessment of traumatic bone marrow oedema of lower limb and its correlation with MRI
H. Yadav1, S. Khanduri2, P. Yadav2; New Delhi/IN, Lucknow/IN

MyT3 5-5 08:46
The role of bone marrow lesions in acute joint injury
L. Selvarajah, A. Curtis, G. Kennedy; Limerick/IE, Dublin/IE

MyT3 5-6 08:50
T2-mapping evaluation of long-term cartilage alteration of humeral head for arthroscopic Bankart repair with or without remplissmage
Y. Kie, S. Chen; Shanghai/ CN

MyT3 5-7 08:54
MRI evaluation to predict tendon size for knee ligament reconstruction
G. Di Nino, E. Grassedonia, P. Toia, L. La Grutta, M. Nobile, T. Smeraldi, P. Midiri, M. Galia, M. Midiri; Palermo/IT

MyT3 5-8 08:58
Hand extensor compartments: how to study them and is it always their fault?
C. A. B. Oliveira1, F. M. F. Gomes1, F. Vieira1, V. Mendes1; Braga/PT, Vila Nova de Sande/RO

MyT3 5-9 09:02
Diffusion tensor imaging of annulus fibrosus in subjects with discogenic low back pain
S. Tian, H. Yuan; Beijing/CN

MyT3 5-10 09:06
Accuracy of volumetric trabecular bone mineral density assessment using dual-source dual-energy CT: a prospective phantom study and comparison with quantitative CT
C. Booz1, L. Yel; N. Grosse Hokamp1, J. Borggreve2, L. Lenga, S. S. Martin1, J. L. Wichmann1, T. J. Vogl1, M. H. Albrecht1; Frankfurt am Main/DE, Cologne/DE

MyT3 5-11 09:10
Complex radiological diagnosis of osteonecrosis in desomorphine dependence patients on the pre-operative stage of treatment
A. Babkova, N. S. Serova, S. P. Pasha, S. K. Ternovoy; Moscow/ RU

MyT3 5-12 09:14
Long-term comparison between blind and ultrasound-guided injection in Morton neuroma
F. Ruiz Santiago, N. Prados Ollela, P. Tomás Muñoz, A. J. Láinez Ramos-Bossini; Granada/ES

Breast

RPS 502
Breast cancer screening scenarios with and without tomosynthesis

Moderators:
S. B. Grover; New Delhi/IN
M. A. Marino; Messina/IT

RPS 502-K 08:30
Keynote lecture
N.N.

RPS 502-1 08:40
Discordant and false-negative screen-detected cancers at independent double reading: a comparison of digital mammography and digital breast tomosynthesis in a population-based screening program
P. Skaane, S. Y. Yanakiev, T. Lie, E. E. Eben, R. Gullien, S. B. Brandal; Oslo/NO

RPS 502-2 08:46
Delayed breast cancer diagnosis after repeated recall at biennial screening mammography: an observational follow-up study from the Netherlands
J. L. R. Lameijer1, A. C. Voogd1, R. M. Pijnappel2, W. Setz2, M. Broeders4, V. C. G. Tjan-Heijnen3, L. Duijm1; Eindhoven/NL, Maastricht/NL, Utrecht/NL, Nijmegen/NL

RPS 502-3 08:52
Predicting the long-term impact of breast tomosynthesis on the cancer detection rate in a screening programme
F. Cama1, G. Gennaro1, A. Pitarro1, G. Romanauci1, C. Fedato1, S. A. Montemezzi1, I. Pescatori1, V. Verona/IT, T. Revisi1/IT
### RPS 502-4
The early effects of a mammography screening program on advanced breast cancer incidence in the Friuli Venezia Giulia Italian region


09:58

### RPS 502-5
Unenhanced MRI combined with digital breast tomosynthesis: diagnostic accuracy for breast cancer detection of a double-reading strategy

V. Marconi, R. Girometti, A. Linda, L. Di Mico, F. Bondini, C. Zuiani

Udine/IT

09:04

### RPS 502-6
Delayed breast cancer diagnoses in women recalled at screening mammography: trends in the proportions and lengths of delay over two decades of screening

I. Duijm, J. L. R. Lameijer, M. Broeders, R. M. Pijnappel

09:10

### RPS 502-7
Classification of interval cancers on digital breast tomosynthesis compared to digital mammography in the Malmö breast tomosynthesis screening trial

K. Johnson, K. Lang, I. Andersson, D. M. Ikeda, S. Zackrisson

Lund/SE; Malmö/SE; Stanford/US

09:16

### RPS 502-8
First Australian pilot trial of digital breast tomosynthesis (3D-mammography) population-based screening in BreastScreen Victoria

D. J. Lockie, N. Housssami, M. E. Clemson

Southbank/AU, Sydney/AU, Ringwood East, VI/AU

09:22

### RPS 502-9
Breast cancer detection rate of screening digital breast tomosynthesis versus 2D mammography: a meta-analysis


09:28

### RPS 502-10
A survey of technical repeats and recalls in the UK Breast Screening Programme

M. L. Hill, M. Halling-Brown, P. Whelahan, R. Highnam

Issy-Les-Moulineaux/FR, Guildford/UK, Dundee/UK, Wellington/NZ

09:34

### RPS 502-11
A multicentre, retrospective analysis of interval cancers to determine clinicopathological factors that correlate with increased growth rates


09:40

### RPS 502-12
An analysis of screen-detected invasive cancers by grade in the English breast cancer screening programme: are we failing to detect enough small grade 3 cancers?


09:46

### RPS 502-13
Trends in recall and outcome of screen-detected microcalcifications during two decades of screening mammography in the Netherlands


09:52

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**Thursday**

**11:15 - 12:30 Room B**

**Musculoskeletal**

### RPS 610
Ultrasound, interventions and new techniques

Moderators:

G. M. Allen; Oxford/UK

N.N.

09:43

**RPS 610-1**
Keynote Lecture

B. Bigiotti; Genoa/IT

09:15

**RPS 610-2**
Quantitative evaluation of muscle stiffness with shear-wave elastography in children with cerebral palsy after a botulinum toxin A injection


09:31

**RPS 610-3**
The role of ultrasound and Doppler in callus formation in diaphyseal fractures of long bones treated by internal fixation

C. Mehta, U. Gohil, K. K. Kartik; Vadodara/IN

09:37

**RPS 610-4**
Detection of intra-articular urate deposition in gout: an ultrasound and dual-energy CT study

J. Legrand, F. Becce, C. Marzin, L. Norberciak, J.-F. Budzik, T. Pascart, Lille/FR, Lausanne/CH

09:49

**RPS 610-5**
Quantitative evaluation of image quality of reduced-dose cone-beam CT images using an adaptive image noise optimiser

R. H. H. Wellenberg, G. J. Streekstra, M. Maas, Amsterdam/NL

09:55

**RPS 610-6**
Prognostic prediction in initially diagnosed multiple myeloma patients using IVIM-DWI and multi-echo Dixon MR imaging


09:08

**RPS 610-7**
Clinical utility of dual-energy CT used as an add-on to 18F FDG PET/CT in the preoperative staging of resectable NSCLC with suspected single osteolytic metastases

H. Wu, S. Dong; Guangzhou/CN

11:15

**RPS 610-8**
Change of apparent diffusion coefficient during CT-guided periradicular infiltration as an indicator of therapy success

S. Talarczyk, D. F. P. Uhlenbrock, P. Haage, C. A. Stubück; Dortmund/DE, Wuppertal/DE, Witten/DE

11:20

**RPS 610-9**
Chondroblastoma treatment by radiofrequency thermal ablation

F. Ruiz Santiago, L. Guzman Alvarez, A. Martinez Martinez, A. J. Lainez Ramos-Bossini; Granada/ES

11:27

**RPS 610-10**
Clinical utility of dual-energy CT used as an add-on to 18F FDG PET/CT in the preoperative staging of resectable NSCLC with suspected single osteolytic metastases

H. Wu, S. Dong; Guangzhou/CN

11:34

**RPS 610-11**
Dynamics of muscle injuries and recovery in diffusion-tensor imaging

I. Yel, K. Eichler, C. Booz, T. Gruber-Rouh, T. J. Vogl, B. Kaltenbach; Frankfurt am Main/DE

11:37

**RPS 610-12**
The effect of radiofrequency pulse transmission polarisation on metal-related artefacts in 3T magnetic resonance imaging: circular versus elliptical polarisation

I. Khodorahm, G. Chang, J. Fritz; New York, NY/US, Baltimore, MD/US

11:43
Advances in rectal cancer imaging

The predictive value of pre- and post-neoadjuvant chemoradiotherapy MRI characteristics for patient outcomes in locally advanced rectal cancer

Y. Meng, C. Wang, P. Dou, H. Zhang, K. Xu, C. Zhou; *Xuzhou/ CN, †Jiangsu/ CN, ‡Beijing/ CN

What's in a name? "Polypoid" as a descriptor in pelvic MRI synoptic reporting for rectal cancer


Clinical T4a rectal cancer at MRI: do these patients develop peritoneal carcinomatosis?


MRI texture analysis for the early prediction of therapeutic response to neoadjuvant chemoradiotherapy and tumour recurrence of locally advanced rectal cancer


Value of high-resolution MRI in detecting lymph node calcifications in patients with rectal cancer

Y. Chen, Z. Wen, Y. Liu, X. Yang, Y. Ma, B. Lu, X. Xiao; †Guangzhou/ CN, ‡Shenzhen/ CN

Humans cannot distinguish mucinous rectal cancer from acellular mucin post-treatment: can computers? A multi-institutional pilot study of MRI radiomics


T and N staging of rectal cancer: comparison between the 2012 and 2016 structured MRI report templates proposed by the European Society of Gastrointestinal and Abdominal Radiology (ESGAR)

F. M. Donati, R. Cervelli, P. Boraschi, N. Furbetta, G. Tarantini, L. Morelli, V. van Ommen, J. E. Wildberger; †Maastricht/ NL, ‡Leiden/ NL

The role of high-resolution apparent diffusion coefficient histogram analysis in evaluating tumour response of locally advanced rectal cancer after neoadjuvant chemoradiotherapy

L. Yang, C. Xia, D. Liu, B. Wu; †Chengdu/ CN

Performance and inter-reader reproducibility of MRI using a simplified response template to help (pre-) select rectal cancer patients for surgery versus organ preservation after chemoradiotherapy

H. E. Haak, M. Maas, T. N. Boellaard, A. Dellì Pizzì, C. Minì, D. van der Zee, G. I. Beets, R. G. H. Beets-Tan, D. M. J. Lambrechts; †Amsterdam/ NL, ‡Chieti/ IT, §Maastricht/ NL, ¶Uden/ NL

Patho-radiomic signatures predict pathological complete response to neoadjuvant chemoradiotherapy in rectal cancer

W. Liuian, H. Zhang, Z. Sun, W. Peng, L. Wan; †Beijing, Chaoyang/ CN, ‡Beijing/ CN

Rectal cancer: a methodological approach for matching PET/MRI to histopathology

**RPS 615-10** 12:19
The diagnostic utility of hybrid: three-phase scintigraphy and CT angiography imaging in patients with acute lower limb ischaemia

**RPS 615-11** 12:25
Application of dual-layer spectral detector CT angiography in improving the imaging quality of lower extremity arteries
N. Wang, Z. Liu, X. Lu, Y. Hou; Shenyang/CN

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**Oncologic Imaging**

**RPS 616a**

**Musculoskeletal tumours and body composition quantitation**

Moderators:
A. Isaac; London/UK
L. Kintzelé; Heidelberg/DE

**RPS 616a-1** 11:15
Distinguishing well-differentiated liposarcomas from lipomas on MR images using a radiomics approach

**RPS 616a-2** 11:21
Progressive desmoid tumours: a comparison of radiomics and conventional response criteria for predicting progression during systemic therapy
A. Crombe; M. Kind; A. Bouhamama; A. Italiano; 1Bordeaux/FR, 2Lyon/France

**RPS 616a-3** 11:27
MRI contrast-enhanced T1 signal intensity: a potential imaging biomarker for prediction efficacy in desmoid-type fibromatosis treated with imatinib
H. C. Zhu, X. T. Li, Y. S. Sun; Beijing/CN

**RPS 616a-4** 11:33
Distinguishing desmoid-type fibromatosis from soft tissue sarcoma on MRI using a radiomics approach

**RPS 616a-5** 11:39
Desmoid-type fibromatosis: a pilot study of tumour response assessment by using MRI signal combined size criteria
H. C. Zhu, X. T. Li, Y. S. Sun; Beijing/CN

**RPS 616a-6** 11:45
High-grade soft-tissue sarcomas: can optimising DCE-MRI post-processing improve prognostic radiomics models?
A. Crombe; D. Fadli; X. Buy; A. Italiano; O. Saut; M. Kind; 1Bordeaux/FR, 2Talence/FR

**RPS 616a-7** 11:51
The utility of 18F-FDG PET and DWI data for the assessment of therapy response of soft tissue sarcomas under neoadjuvant ILP
J. Grueneisen1, M. Chodyla1, B. M. Schaarschmidt1, A. Demircioglu1, O. Martin1, K. Herrmann1, M. Forsting1, L. Podleska1, L. Umutlu1; Essen/DE, 2Düsseldorf/DE

**RPS 616a-8** 11:57
Low skeletal muscle mass and postoperative morbidity in surgical oncology: a systematic review and meta-analysis
L. Weerink1, A. van der Hoorn2, B. van Leeuwen2, G. de Bock2; 1AlmeLO/NL, 2Groningen/NL

**RPS 616a-9** 12:03
Do CT-based body composition parameters at baseline or their early changes correlate with progression in metastatic solid tumour patients treated with immunotherapy?
A. Crombe, M. Kind, M. Toulmonde, A. Italiano, S. Cousin; Bordeaux/FR

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**Artificial Intelligence and Machine Learning**

**RPS 605a**

**Artificial intelligence and MRI radiomics**

Moderators:
M. Novikov; Kiev/UA
O. Pianyk; Newton Highlands/US

**RPS 605a-1** 11:15
Radiomics versus visual assessment of T2-weighted MR images: which is better to define T-stage in rectal cancer?
J. M. Moreira1, I. Santiago1, J. Santinha1, V. Maniatis1, M. Litsitskaya1, N. Figueiredo1, C. Matos1, N. Papanikolaou1; Lisbon/PT, 2Aabenraa/DK, 3Moscow/RU

**RPS 605a-2** 11:21
Radiomics to detect SDHx mutation in paragangliomas and pheochromocytomas on MRI
A. Tran, L. Duron, C. Lussey Lepoutre, L. Fournier; Paris/FR

**RPS 605a-3** 11:27
Radiomics analysis of gradient-echo MRI for lymph node classification in rectal cancer
J. M. Moreira, I. Santiago, J. Santinha, M. J. M. Barata, N. Shemesh, C. Matos, N. Papanikolaou; Lisbon/PT

**RPS 605a-4** 11:33
Development and external validation of automatic diagnostic aid for multiple sclerosis using a radiomics analysis of white matter on clinical and quantitative MRI
E. Lavrov1, H. C. Woodruff1, C. Phillips2, E. Salmon2, E. Lommers2, P. Lambin1, P. Maquet1; Maastricht/NL, 2Liege/BE

**RPS 605a-5** 11:39
Exploring breast cancer response prediction to neoadjuvant systemic therapy using MRI-based radiomics: a systematic review

**RPS 605a-6** 11:45
MRI-based radiomics in breast cancer: feature robustness and its interoperability with respect to interobserver segmentation variability

**RPS 605a-7** 11:51
Reproducibility of radiomics in pelvic MRI: the effect of variations between readers, segmentation methodology, and software
N. Schurink, J. J. M. van Griethuysen, L. A. Min, R. G. H. Beets-Tan, S. R. van Kranen, M. D. J. Lambregts; Amsterdam/NL

**RPS 605a-8** 11:57
Staging of endometrial cancer using MRI: prediction of deep myometrial infiltration using radiomics-powered machine learning
R. Del Grosso, A. Stanzione, R. Cucolo, V. Romeo, A. Nardiello, A. Travaglini, P. P. Mainenti, L. Insabato, M. P. S. Maurea; Naples/IT
RPS 605a-9 12:03
A radiomics-based model to identify the aetiology of liver cirrhosis using gadoteric acid-enhanced MRI
A. Elkindi1, T. Müller1, M. Demir1, M. Schmelzle1, T. Denecke1, D. Geisel1, Berlin/DE, Leipzig/DE

RPS 605a-10 12:09
Pituitary adenoma surgical consistency prediction on T2-weighted MRI: a radiomics machine learning analysis
M. B. Cipullo1, R. Cuocolo1, L. Uggia2, D. Solarì, A. D’Amico2, L. M. Cavallo, P. Cappabianca1, A. Brunetti1, *Naples/IT, *Scafati/IT, *Salem/IT

RPS 605a-11 12:15
Using magnetic resonance-based machine learning radiomics to predict diagnosis and prognosis in gliosarcoma
K. Yi1, B. Chen1, J. Li1, *Changsha/China, *Los Angeles/US

RPS 605a-12 12:21
MRI-based radiomics to predict treatment outcome in oropharyngeal cancer patients

11:15 - 12:30 Room O

Breast

RPS 602a-1 11:25
The additional utility of ultrafast MRI on conventional DCE-MRI in evaluating preoperative MRI of breast cancer patients
A. Y. Park1, S. J. Lee1, K. H. Ko1, H. K. Jung1, J. E. Koh1, *Seongnam-si/KR

RPS 602a-2 11:31
The usefulness of postoperative surveillance MR for women after breast-conservation therapy: focusing on MRI features of early and late recurrent breast cancer

RPS 602a-3 11:37
A systematic review on variability in studies of breast diffusion-weighted imaging for treatment monitoring
K. van der Hoogt1, R.-J. Schipper3, G. Winter-Warnars1, L. C. Ter Beek1, C. Loo1, R. M. Mann1, R. G. H. Beets-Tan1; *Amsterdam/NL

RPS 602a-4 11:43
A novel model for the evaluation of breast DWI: is it possible to predict BI-RADS categories?

RPS 602a-5 11:49
Diffusion-weighted imaging of breast lesion detection and characterisation: additional value of synthetic higher b-values

RPS 602a-6 11:55
Value of multiparametric MRI with dynamic contrast-enhanced and diffusion-weighted imaging in non-mass enhancing breast tumours

11:15 - 12:30 Room O

Cardiac

RPS 603a-1 11:25
Similar but not identical: radiomics analyses of areas with late gadolinium enhancement in patients with ischaemic and non-ischaemic disease
L. Baffoni1, A. Cavalieri2, R. Motta1, B. Giorgi1, R. Stramare1, M. de Lazzari1, M. Perazzolo Marra1, E. Quai3, C. Giraud2; *Montebelluna/IT, *Padua/IT

RPS 603a-2 11:31
Global longitudinal diastolic strain rate as an early marker for predicting adverse outcomes in hypertrophic cardiomyopathy by cardiac magnetic resonance feature tracking
X. Chunchao1, Z. Li1, *Chengdu/China

RPS 603a-3 11:37
Rare disease: cardiac risk assessment with MRI in patients with myotonic dystrophy type 1
M. Al1, C. B. Monti1, R. Cardani1, L. Melazzini1, F. Secchi1, G. Meola1, F. Sardanelli1, *Milan/IT

RPS 603a-4 11:43
Right ventricular involvement in Fabry’s disease
T. Emrich1, S. Benz1, I. A. Abidoye1, C. Düübel1, L. Arash-Kaps1, J. B. Hennermann1, C. Kampmann1, K.-F. Kreitner1; *Mainz/DE, *Ado-Ekiti/NG

RPS 603a-5 11:49
Texture analysis of cine CMR sequences in patients with dilated cardiomyopathy: may the radiomic signature predict the prognosis?
N. Di Mesio1, L. Zanolini1, G. M. Agazzi1, L. Lupi1, M. Ravaneli1, D. Farina1, Brescia/IT

RPS 602a-7 12:01
A multiparametric approach of diagnosing breast lesions using diffusion-weighted imaging and ultrafast dynamic contrast-enhanced MRI
A. Ghashi1, M. Kataoka1, M. Iima1, M. Honda1, Y. Urushibata1, M. Nickel1, E. Weiland2, M. Toi1, K. Tagashi1, *Kyoto/JP, *Tokyo/JP, *Erlangen/DE

11:15 - 12:30 Studio 2020

Cardiac

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Similar but not identical: radiomics analyses of areas with late gadolinium enhancement in patients with ischaemic and non-ischaemic disease
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RPS 603a-5 11:49
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N. Di Mesio1, L. Zanolini1, G. M. Agazzi1, L. Lupi1, M. Ravaneli1, D. Farina1, Brescia/IT
RPS 603a-6 11:55
Manually measured global longitudinal strain in cardiac MRI scans: the evaluation of myocardial longitudinal kinesia in patients affected by hypertrophic cardiomyopathy
E. Muscogiuri, D. Caruso, T. Polidori, M. Pignatelli, G. Fraietta, M. Di Girolamo, A. Laghi; Rome/IT

RPS 603a-7 12:01
Left ventricular feature tracking strain analysis for the detection of early cardiac involvement in Anderson Fabry disease
M. Richter, V. Bethke, A. Hasse, A. Brose, S. Harth, C. Tanislav, G. Krombach, F. Roller; Giessen/DE

RPS 603a-8 12:07
Texture analysis and machine learning of T1 maps and ECV compared with strain parameters: differentiation among hypertrophic cardiomyopathy, hypertensive heart disease, and normal control
R.-Y. Shi, L. Wu, J.-R. Xu; Shanghai/CN

RPS 603a-9 12:13
Quantification of right ventricular strain and strain rate using cardiac magnetic resonance feature tracking in hypertrophic cardiomyopathy subjects with preserved ejection fraction
L. Yang, K. Wang; Harbin/CN

RPS 603a-10 12:19
Using myocardial extracellular volume fraction to differentiate healthy from cardiomyopathic myocardium using dual-source dual-energy CT
A. F. Abadia, V. Virgini, M. van Assen, S. S. Martin, A. Varga-Szemes, U. J. Schoepf; Charleston, SC/US, 1Rome/IT, 2Groningen/NL

RPS 603a-11 12:25
Differences in myocardial segmental strain between obstructive and non-obstructive hypertrophic cardiomyopathy assessed by feature tracking cardiovascular magnetic resonance
V. Palmisano, S. Gossa, M. Porcu, R. Cau, L. Saba; Cagliari/IT

11:15 - 12:30 Coffee & Talk 2

Oncologic Imaging

RPS 616b Metastatic malignancies: advanced diagnosis and radiomics data
Moderators:
R. Perez Lopez; Barcelona/ES
E. Sala; Cambridge/UK

RPS 616b-1 11:15
Preoperative prediction of peritoneal metastasis in colorectal cancer using a clinical-radiomics model
M. Li, T. T. Tong; Shanghai/CN

RPS 616b-2 11:21
A comparison of whole-body MRI and 68Ga-DOTATATE PET/CT findings in patients with suspected peritoneal metastases from neuroendocrine tumours

RPS 616b-3 11:27
A comparison of diffusion-weighted MRI (DWI) and 68Ga-DOTATATE PET/CT to assess tumour response of liver metastases of primary neuroendocrine tumours (NET) following Yttrium-90 radioembolisation
M. Ingenierf, N. Fink, J. Sauerbeck, H. Ilhan, J. Ricke, C. Schmid-Tannwald; Munich/DE

RPS 616b-4 11:33
Predicting the response of individual liver metastases with radiomics in HER2 amplified patients undergoing dual-targeted therapy
G. Cappello, V. Giannini, A. Defeudis, S. Mazzetti, L. Vassallo, D. Regge; Candiolo/IT

RPS 661b-5 11:39
The value of apparent diffusion coefficients (ADC) to assess the response of hepatic metastases of primary neuroendocrine tumours (NET) undergoing selective internal radiotherapy with 90Ytrrium-microspheres
M. Ingenierf, N. Fink, J. Sauerbeck, H. Ilhan, J. Ricke, C. Schmid-Tannwald; Munich/DE

RPS 661b-6 11:45
The impact of inter-reader contouring variability on textural radiomics of CRC liver metastases
F. Rizzetto, C. de Mattia, L. Vassallo; V. Giannini; A. Defeudis, D. Regge, A. Torresin, A. Vanzulli; ’Rho/IT, ’Milan/IT, ’Monasterolo di Savigliano/IT, ’Candiolo/IT, ’Segrate/IT

RPS 661b-7 11:51
Baseline clinical and imaging predictors of treatment response and overall survival of patients with metastatic melanoma undergoing immunotherapy
A. E. F. Othman, A. Schraag, S. Afat, T. Eigentler, B. Klumpp; Tübingen/DE

RPS 661b-8 11:57
Changes in tumour heterogeneity with tyrosine kinase inhibitor therapy in metastatic renal cell carcinoma: preliminary results from the STAR trial

RPS 661b-9 12:03
Patterns of progression under immunotherapy in metastatic kidney cancer

RPS 661b-10 12:09
Diagnostic performance of trimodality imaging follow-up in bladder cancer patients treated with preservation therapy
S. Ahmed; Assiut/EG

RPS 661b-11 12:15
Whole-body MRI: a ‘one-stop-shop’ for staging high-risk prostate cancer?
N. Ali, P. Charters, N. Burns-Cox, P. Burn; Bristol/UK, Taunton/UK

RPS 661b-12 12:21
The role of PET-CT with 18F-FDG in the initial assessment of patients with carcinoma of an unknown primary origin (CUP)
S. Varemenko, N. Rucheva, V. E. Sinitsyn; Moscow/RU

11:15 - 12:30 Room E

Breast

RPS 602b High-risk situations in breast cancer
Moderators:
M. A. Lübkevons; Reykjavik/IS
S. Sauer; Würzburg/DE

RPS 602b-1 11:15
Identification of women at high risk of breast cancer and in need of supplementary screening
M. Eriksson, K. Czene, S. Zachrisson, P. Hall; Stockholm/SE, Malmö/SE

RPS 602b-2 11:21
Comparing contrast-enhanced spectral mammography with breast MRI in high and intermediate risk women: preliminary results
V. Pasqualing, G. Gennaro, A. Pittaro, E. Baldan, E. Bezzon, I. Polico, F. Caumo; Padua/IT

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**RPS 602b-3** 11:27
Radiation dose with contrast-enhanced spectral mammography as a screening test for high and intermediate risk population
G. Gennaro, V. Pasqualino, E. Baldan, E. Bezzon, A. Pittaro, F. Caumo; Padua/IT

**RPS 602b-4** 11:33
Effect of BPE on cancer detection in MRI-guided biopsies for high-risk lesions distinguished only on MRI
K. Sirkovich1, T. Arazzi-Kleinman2, G. Bar On1, 1Holon/IL, 2Zeriffin/IL; Tel Aviv/IL

**RPS 602b-5** 11:59
Six-month interval screening with mammography and ultrasound in BRCA mutation carriers who undergo annual MRI: does it improve cancer detection?
B. Musaiev, K. A. Musaieva, D. L. Kaduri, E. Carmon, T. Sella; Jerusalem/IL

**RPS 602b-6** 11:45
Surveillance scheme after risk-reducing mastectomy in BRCA1 BRCA2 mutation carriers: to screen or not to screen?
N. Kanana1, M. Sklar-Levy1, E. Friedman2, E. Klang1, Y. Yagil3, A. Shalmon1, M. Gotlieb, Y. Yagil, M. Sklar-Levy; Ramat Gan/IL

**RPS 602b-8** 11:57
Association of the differences in average glandular dose with breast cancer risk
L. Ma, X. Lin, G. Qin, Y. Cai, W. Chen; Guangzhou/CN

**RPS 602b-9** 12:03
Breast density from low-dose risk assessment mammograms
G. Ionescu1, S. Squires1, E. F. Harkness1, A. Mackenzie2, D. G. Evans1; Edinburgh/UK, 11:57

**RPS 602b-10** 12:09
Measurement of breast density in each breast: is it also suggestive of breast cancer risk?
J. L. Browne, L. Casas, G. Santandreu, A. Rincon, I. Rodriguez, M. A. Pascual; Barcelona/ES

**RPS 602b-11** 12:15
Characterisation of sub-centimetre enhancing breast masses on MRI with radiomics in BRCA mutation carriers
R. Lo Gullo1, I. Daimiel Naranjo, A. Bitencourt, P. Gibbs, M. Fox, E. A. Morris, K. Pinker-Domenig; Essen/DE

**RPS 602b-12** 12:21
Correlation of 18F-FDG PET/MRI imaging information with relevant immunohistochemical markers in breast cancer patients: could PET/MRI identify high-risk patients?
O. Martin1, J. Kirchner1, N.-M. Bruckmann1, B. M. Schaarschmidt1, J. Grueneisen2, I. Daimiel Naranjo, A. Bitencourt, P. Gibbs, M. Fox, E. A. Morris, K. Pinker-Domenig; Essen/DE

**RPS 601b-2** 11:31
Etiology of the liver stiffness assessed with ultrasound elastography: a cross sectional twin study
D. L. Tarnoki1, M. O. Erdéi1, M. Piroska1, A. Hernyes1, H. Szabol1, M. Fekete1, A. Tarnoki; Budapest/HU, 11:31

**RPS 601b-3** 11:37
Comparison of sound touch elastography (STE), shear wave elastography (SWE), and vibration controlled transient elastography (VCTE) using liver biopsy as reference for chronic liver disease assessment
I. Gatos1, P. Drazinos2, S. Yarmenitis1, I. Theotokas1, E. Panteleakou1, A. Soultatos1, P. S. Zoumpoulis1; Athens/GR, 11:37

**RPS 601b-4** 11:43
Preoperative evaluation of the liver using 2D-shear wave elastography with propagation map for prediction of post-hepatectomy liver failure: comparison with transient elastography

**RPS 601b-5** 11:49
Comparison between transient elastography and liver surface nodularity for detecting clinically significant portal hypertension
R. Sartori1, A. Souhami Amanou1, A. Calandra1, P.-E. Rautou1, F. Cauchy1, V. Vignain1, R. Maxime1; Clermont-Ferrand/FR, 11:49

**RPS 601b-6** 11:55
Liver stiffness and fatty liver quantification in high risk patients
I. Sporea, R. Mare, S. Nistorescu, A. Vite1, R. Sird, A. S. Popescu, A. Sima, R. Timar, M. Tomescu; Timisoara/RO

**RPS 601b-7** 12:01
Spleen stiffness for predicting the presence of high risk varices: comparison between two different elastography techniques
F. Renata1, I. Sporea, B. Felix, R. Lupusoru, M. Danila, P. Alina, S. Roxana; Timisoara/RO

**RPS 601b-8** 12:07
Measurement of the relationship between the histiologic stage of liver fibrosis and the spatial variability of liver shear stiffness (kPa) using 2D magnetic elastography (MRE)
N. Layvous1, C. B. Sirlin2, K. J. Fowler1, E. Z. Sy2, T. Wolfson2, A. Pecorelli1, T. I Delgado2, A. S. Boehringer1, R. Loomba2; Rancho Santa Margarita, CA/US, 12:07

**RPS 601b-9** 12:13
Interobserver variability in the evaluation of magnetic resonance elastography in patients with fibrotic liver disease
M. W. Raudner1, D. Bencikova1, S. Potter-Lang1, N. Bastati1, K. Grät1, G. Reiter1, S. Karnengiesser1, S. Trattnig1, M. W. Raudner; Graz/AT, 12:13

**RPS 601b-10** 12:19
Single- and multi-frequency MR elastography with gradient-recalled echo and spin-echo echo-planar acquisitions: comparison of robustness and intersegmental liver stiffness variation
V. C. Obmann1, R. Kreis1, I. Sack1, A. Berzigotti1, M. M. Obmann1, J. T. Hetverhagen1, A. Christie1, A. T. Huber1; Bern/CH, 12:19

**RPS 601b-11** 12:25
Can T1-mapping serve as an alternative to MR-elastography in the staging of liver fibrosis?
S. Frein von Ulmenstein1, S. Bogdanovic2, H. Honcharova-Biletska1, S. Blumel1, A. Deibel1, C. Jüngst1, A. Weber; Vienna/AT, 12:25

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**Abdominal Viscera**

**RPS 601b** Elastography
Moderators:
I. Abelskaia; Minsk/BY
C. Pozzessere; Florence/IT

**RPS 601b-K** 11:15
Keynote lecture
R. Maxime; Clichy/FR

**RPS 601b-1** 11:25
Two-dimensional shear wave elastography for significant liver fibrosis in patients with chronic hepatitis B: a systematic review and meta-analysis
H. Wei, H. Jiang, B. Song; Chengdu/CN
**Neuro**

**RPS 611a**

**Neurodegenerative diseases**

Moderators:
J. Boban; Sremńska Kamenica, Novi Sad/RS
B. M. Görür; Nijmegen/NL

RPS 611a-1 11:15
Classifying white matter hyperintensities according to intensity and spatial localisation reveals a specific association with cognition

L. Melazzini1, V. Bordin2, S. Surè2, E. Zsoldos2, K. Ebmeier3, M. Jenkinson3, C. Mackay2; F. Sardanelli2; L. Griffanti3; 1Milan/IT, 2Oxford/UK

RPS 611a-2 11:21
Brain structural covariance in subtypes of mild cognitive impairment at risk of disease progression

H. Yao1, L. Zhao1, Y. Luo1, L. Shi2, D. Lew2, V. Mok2, B. Zhou1, X. Zhang1, N. An1; 1Beijing/CN, 2Shenzhen/CN, 3Hong Kong/HK

RPS 611a-3 11:27
Study on feasible elemental statistics of MR-phase information for AD diagnosis

S. Shinohara1, T. Yoneda1, Y. Tatewaki2, B. Thyreau2, T. Nagasaka2, T. Mutoh3, H. Arai1, Y. Taki1; 1Kuhonji Chuo-Ward, Kumamoto/JP, 2Sendai/JP

RPS 611a-4 11:33
Prediction of Alzheimer's disease by using a novel 3D deep learning model

J. Ma, Q. Chu, B. Pan, J. Gu, S. Wang; Shenzhen/CN

RPS 611a-5 11:39
Abnormal cerebral microstructures revealed by diffusion kurtosis imaging in amyotrophic lateral sclerosis

H.-J. Huang, H.-J. Chen, T.-X. Zou; Fuzhou/CN

RPS 611a-6 11:45
Diffusion basis spectrum imaging quantifies microstructural changes of the substantia nigra in early-stage Parkinson's disease

Z. Hu1, P. Sun1, X. Ceng1, A. George2, R. Yang1, S. Song1; 1Guangzhou/CN, 2Saint Louis/US

RPS 611a-7 11:51
Comparing “swallow tail sign” and striatal uptake in early-stage Parkinson’s disease: a potential surrogate of 18F-DTBZ PET

N. W. Wang, X. Liu, Y. Li; Shanghai/CN

RPS 611a-8 11:57
Intra-network functional connectivity changes of the frontoparietal network in Parkinson’s disease

L. A. Teichert1; C. Rubbert1, C. Mathys2, B. M. Görür; 1Münster/DE, 2Nijmegen/NL

RPS 611a-9 12:03
Histogram analysis of DTI metrics of grey and white matter in the cognitive decline of Parkinson’s disease

C. V. Gkizas1, L. G. Astrakas1, M. Chondrogiorgi1, S. Konitsiotis1, J.-P. Pruvo2, M. Argypopoulou1; 1Ioannina/GR, 2Bucheon/KR

RPS 611a-10 12:09
Measuring the midsagittal midbrain area in T1-weighted 3D MRI to differentiate between TDP-43-proteinopathies (ALS) and tauopathies (PSP)

D. Cantrè; C. Koch, M. Dyrba, J. Prudlo; Rostock/DE

RPS 611a-11 12:15
Multimodal imaging to quantify serial changes of the putaminal region during a precursor state and the early stage of Parkinson's disease

H. Takahashi1, Y. Watanabe1, H. Tanaka1, H. Kato1, H. Adachi1, M. Mihara1, H. Mochizuki1, N. Tomiyama1; 1Osaka/JP, 2Otsu/JP, 3Suita/JP

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**Head and Neck**

**RPS 608**

**Thyroid gland**

Moderators:
E. Gotsiridze; Tbilisi/GE
T. Beale; London/UK

RPS 608-K 11:15
Keynote lecture
A. S. McQueen; Newcastle Upon Tyne/UK

RPS 608-1 11:25
The value of superb microvascular imaging for evaluating indeterminate lymph nodes in patients with papillary thyroid carcinoma


RPS 608-2 11:31
Diagnostic performance of US-guided core-needle biopsy versus fine-needle aspiration for diagnosing thyroid neoplasm as a first-line biopsy method: a propensity score matching study


RPS 608-3 11:37
The role of repeated fine-needle aspiration for Bethesda I thyroid nodules: a 12-year single-centre experience

M. Daud, H. Maze, B. Mali, K. Atlan, P. Lebensart, K. Azam, Y. Azrak, N. Goldberg, L. Appelbaum; Jerusalem/IL

RPS 608-4 11:43
Radiological-pathological correlation of thyroid nodules ultrasound and cytology using the TI-RADS and Bethesda classifications

S. Atlan; Giresun/TR

RPS 608-5 11:49
Correlation of ACR 2017 thyroid imaging reporting and data system (ACR TI-RADS) scoring on ultrasound and Bethesda cytopathology for thyroid nodule risk stratification

A. A. Singhal, D. Sarin, H. Sarin, A. Mithal, S. S. Bajjal; Gurgaon/IN

RPS 608-6 11:55
Comparative evaluation of conventional ultrasound-based thyroid imaging reporting and data system (TIRADS) and contrast-enhanced ultrasound qualitative parameters in the differentiation of thyroid nodules

L. Garg, S. B. Grover, S. Patra, Chintamani, G. Khanna; New Delhi/IN

RPS 608-7 12:01
Thyroid multimodal-imaging comprehensive risk stratification scoring (TMC-RSS) system: a quantitative scoring system for characterising thyroid nodules

A. Mahajan, N. Sable, R. Vaish, S. V. Kane, D. Chaukar, A. Dcruz; Mumbai/IN

RPS 608-8 12:07
The determination of diagnostic accuracy of ACR (TI-RADS) in thyroid nodules on ultrasonography

G. Jameel; Islamabad/PK

RPS 608-9 12:13
Malignancy in the contralateral lobe and the role of surveillance US after hemithyroidectomy for thyroid cancer

O. D’brien; O. Hilmi, C. McArthur; Glasgow/UK

RPS 608-11 12:19
The size did matter: radiofrequency ablation for benign thyroid nodules

N. Kan, W.-C. Lin; Kaohsiung/TW

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**Physics in Medical Imaging**

**RPS 613**

**Artificial intelligence (AI) revising the physics in medical imaging**

Moderators:
L. Fournier Pompidou; Paris/FR
K. N. Bolstad; Bergen/NO

**RPS 613-1 11:15**

A task-based MTF comparison between a new deep learning-based CT reconstruction and current iterative methods

**RPS 613-2 11:21**

How does a deep learning image reconstruction algorithm affect image quality in CT abdominal imaging?
X. Liu1, J. Rong3, C. T. Jensen1, A. G. Chandler2; *Houston, TX/US, *Waukesha, WI/US

**RPS 613-3 11:27**

The performance assessment of a novel deep learning CT reconstruction algorithm: a phantom study

**RPS 613-4 11:33**

Equal CNR at thinner slice thicknesses enabled the use of a CE-marked deep learning reconstruction method for CT

**RPS 613-5 11:39**

The potential of deep learning image reconstruction for CT for reducing exposure radiation: a phantom study
N. Nagasawa1, K. Kitagawa2, N. Kubooka2, Y. Ichikawa3, A. Yamazaki1, H. Maki, H. Sakuma1; *Tsu/JP

**RPS 613-6 11:45**

Deep learning reconstruction and hybrid-iterative reconstruction for ultrahigh-resolution CT: the impact of radiation dose on spatial resolution and noise texture
L. J. Oostven1, M. M. Prokop2, F. de Lange3, I. Sechopoulos4; *Nijmegen/NL

**RPS 613-7 11:51**

Impact of a deep learning-based reconstruction algorithm on pulmonary nodule detection in chest CT

**RPS 613-8 11:57**

A comparison of advanced AI-based CT reconstructions by noise magnitude and centroid frequency ratios
T. Pan1, A. Hasegawa2; *Houston, TX/US, *Chapel Hill/US

**RPS 613-9 12:03**

Deep learning applied to low kV imaging in CT

**RPS 613-10 12:09**

Image quality capabilities and dose reduction opportunities of a deep learning image reconstruction algorithm: a phantom study
J. Greffiec1, H. Pasquier1, A. Hamard1, J. P. Beregi2, J. Frandon2; *Nîmes/FR, *Buc/FR

**RPS 613-11 12:15**

Towards 4D interventional guidance: reconstructing interventional tools from four x-ray projections using a deep neural network
E. Eling1, J. Maier1, N. R. Bennett2, M. Knaup2, D. K. Hördnider2, A. Wang2, M. Kachelrieb1; *Heidelberg/DE, *Palo Alto/US, *Nuremberg/DE

**Genitourinary**

**RPS 607**

**New ultrasound modalities in the genitourinary system**

Moderators:
E. Bertelli; Florence/IT
G. Roic; Zagreb/HR

**RPS 607-K 11:15**

Keynote lecture
V. E. Gazhonova; Moscow/RU

**RPS 607-1 11:25**

Contrast-enhanced ultrasound (CEUS) following renal cryoablation: potential and limits
I. Campo1, C. Sachs2, R. Ciabattoni1, M. A. Cova2; *Triest/IT

**RPS 607-2 11:31**

Accuracy of contrast-enhanced ultrasound qualitative parameters for the characterisation of complex cystic and solid renal masses: a comparative study
S. B. Grover1, M. Altamashi1, S. Patra1, H. Grover1, A. Katyan1, A. Kumar1, A. K. Mandal1; *New Delhi/IN, *New York/US

**RPS 607-3 11:37**

A comparison between the diagnostic accuracy of CEUS qualitative parameters and conventional ultrasound-based IOTA simple rules (SR) for the sonographic characterisation of complex adrenal masses
S. Patra1, S. B. Grover1, H. Grover1, P. Mittal1, G. Khanna1; *New Delhi/IN, *New York, NY/US

**RPS 607-4 11:43**

Evaluation of diagnostic accuracy of contrast-enhanced ultrasound (CEUS) quantitative parameters for the characterisation of solid renal masses
S. B. Grover1, M. Altamashi1, S. Patra1, H. Grover1, A. Katyan1, A. Kumar1, A. K. Mandal1; *New Delhi/IN, *New York/US

**RPS 607-5 11:49**

Shall we use contrast-enhanced ultrasound (CEUS) for the characterisation of nonpalpable testicular lesions? An analysis from a cost-effectiveness perspective

**RPS 607-6 11:55**

Strain elastography: is it valuable in the assessment of cervical incompetence during pregnancy?
E. Elkayal1, ElFayoum/EG

**RPS 607-7 12:01**

Shear-wave elastography of the prostate for the detection of Ca prostate in cases of elevated PSA and BPH
S. S. Sachar1, S. Sachar2; *New Delhi/IN, *Muzaffarnagar/IN

**RPS 607-8 12:07**

Does shear-wave elastography correlate with biopsies in acute renal graft dysfunction patients? Preliminary results
C. G. Garcia Roch1, G. F. Maria Esther2, A. Roca Muñoz2, F. X. Aragon Tejada1, S. Aso Manso1, P. A. A. Barón Rodiz1, F. Garcia Garcia1; *Toledo/ES, *Madrid/ES

**RPS 607-9 12:13**

Comparing computed tomography (CT) and contrast ultrasonography (CEUS) in the management of complex renal cysts: a single-centre experience
E. Gioulis1, L. Angelini2, S. Aso Manso1, P. A. A. Barón Rodiz1, N. Civitareale2, M. Coss2, G. Piccoli3; *Cittoria Veneto/IT, *Conegliano/IT

**RPS 607-10 12:19**

Association between 2D transperineal ultrasound and physical examination in evaluation of pelvic floor muscle functions
A. Aryan1, M. Arab Ahmadi1; *Tehran/IR
RPS 604a Evaluation of interstitial lung disease: recent advances and new techniques

Moderators:  
E. Baratella; Trieste/IT  
E. J. Stern; Seattle, WA/US

RPS 604a-K 11:15  Keynote Lecture  
M. Benegas Urteaga; Barcelona/ES

RPS 604a-1 11:25  The effect of deep learning reconstruction on cyst scores in patients with cystic lung diseases  

RPS 604a-2 11:33 From infancy to adulthood: developmental changes in pulmonary quantified computed tomography parameters  

RPS 604a-3 11:37  Interstitial lung abnormality in abdominal and thoracoabdominal computed tomography scans performed for routine clinico-surgical indications  
G. Milanese, M. Silva, V. R. Papapietro, E. Bacchini, G. Caprett, F. Specchia, S. E. Gazzani, E. Iezzi, N. Sverzellati; Parma/IT

RPS 604a-4 11:43  Cross-border knowledge sharing in the diagnostic workup of a rare disease: experiences with a Trans-European teleradiology project on idiopathic pulmonary fibrosis  
T. J. Weikert, G. Sommer, M. Tamm, P. Haegler, J. Cyriac, A. W. Sauter, K. Hostettler, J. Bremerich; Basel/CH

RPS 604a-5 11:49  Characteristics of lung disease patterns on CT scans in patients with idiopathic inflammatory myopathies: association with myositis specific auto-antibodies  
A. Laporte, K. Mariampillai, Y. Allenbach, O. Benveniste, P. Grenier, S. Boussouar; Paris/FR

RPS 604a-6 11:55  Evaluation of the relationship between pulmonary manifestations and laboratory findings in rheumatoid arthritis patients  

RPS 604a-7 12:01  Comparison of the relevances of different reconstruction kernels and slices thickness for disease progression in idiopathic pulmonary fibrosis  
J. Pan, J. Hofmanninger, S. Röhrich, F. Prayer, N. Sverzellati, H. Prosch; 'Vienna/AT, 'Parma/IT

RPS 604a-8 12:07  The evaluation of lung CT densitometry in interstitial lung diseases  
Y. Sengil, D. Kocakaya, C. Ilgın, E. Eryuksel, N. Inanc, N. C. Cimsit; Istanbul/TR

RPS 604a-9 12:13  The impact of hybrid iterative reconstruction on quantitative analysis with pulmonary CT  
Z. Liu; Beijing/CN

RPS 604a-10 12:19  A comparison between the ATS/ERS/JRS/ALAT criteria of 2011 and 2018 for usual interstitial pneumonia on HRCT: a cross-sectional study  
L. L. Wuyts, M. Camerlinck, D. de Surgeloose, L. Vermeiren, D. Leuemans, J. Cluikers, H. Slabynck; Antwerp/BE

RPS 604a-11 12:25  Can we improve the prediction of survival in fibrotic interstitial lung diseases? Texture-based quantitative CT model outperforms expert diagnosis  
E. J. M. Barbosa Jr, W. Gefter, D. Kontos, B. Haghighi; Philadelphia, PA/US
RPS 609a-10 12:03
Retrievable covered metallic segmented Y airway stents modified with 3D printing for gastro-respiratory fistulas involving carina and bronchial distal to carina: a preliminary retrospective study
Q. Shan1, W. Huang, Z. Wang1; Shanghai/CN

RPS 609a-11 12:09
The role of multi-detector computed tomography angiography for preprocedural planning and radiation dose reduction in bronchial artery embolisation
B. S. R. Reddy1, P. Chatterjee1, K. Sunder1, R. Kumar1, V. Mazumdar1; M. A. Guevara Lopez; Guimaraes/PT, 1; Maastricht/NL

RPS 609a-12 12:15
Transvenous pulmonary chemoembolisation (TPCE) and intra-arterial chemoembolisation (IACCP) in primary lung malignancies: a palliative treatment approach
T. J. Vogl1, A. I. Meckawy2, M. El-Sharkaway2, D. B. Thabet2; Cairo/EG

RPS 609b 11:15 - 12:30 Room G

Artificial Intelligence and Machine Learning

RPS 605b
Artificial intelligence and machine learning in breast cancer

Moderators:
P. Clauser; Vienna/AT
M. A. Guevara Lopez; Guimaraes/PT

RPS 605b-K 11:15
Keynote lecture
S. Vinnicombe; Cheltenham/UK

RPS 605b-1 11:25
Accelerating breast cancer screening using an abbreviated MRI protocol and artificial intelligence
X. Jing, M. Wielema, L. Cornelissen, S. Zheng, J. Guo, P. Sijens, M. Oudkerk, M. Dorrius, P. M. van Ooijen; Groningen/NL

RPS 605b-2 11:31
Mammographic breast density classification and risk assessment using deep learning
M. Jie1, M. Xu1, X. Lin1, S. Wu1, Y. Zhang1, Z. Cao2, L. Huang1, M. Wu1, Y. Wang1; 1Shenzhen/CN, 2Palo Alto/US

RPS 605b-3 11:37
Performance of radiologists versus a machine learning classifier for optoacoustic imaging of the breast
G. Menezes1, S. Dykes, B. A. Clingham, A. T. Stavros; San Antonio, TX/US

RPS 605b-4 11:43
Detecting and delineating suspicious masses in contrast-enhanced mammography (CEM) using a deep learning workflow
M. Beuque1, Y. van Wijk, H. C. Woodruff, Y. Widaatalla, M. B. I. Lobbes, P. Lambin; Maastricht/NL

RPS 605b-5 11:49
Can artificial intelligence reduce the interval cancer rate in mammography screening?
K. Lang1, S. Hofvind2, A. Rodriguez Ruiz3, I. Andersson1; 1Malmö/SE, 2Oslo/NH, 3Umeå/NL

RPS 605b-6 11:55
Breast cancer detection by mammographic view with artificial intelligence in digital breast tomosynthesis
E. F. Conant1, A. Y. Tolodzko1, S. Periaswamy1, S. Fotin2, H. Haldankar2, J. Go1, J. Boatsman1, J. Hoffmeister3, 1Philadelphia, PA/US, 2Washington, US, 3Nashua, NH/US, 4San Antonio/US

RPS 605b-7 12:01
Deep learning model used in mammographic breast density assessment
J. Tao1, F. Yang, J. Liu; Wuhan/CN

RPS 605b-8 12:07
Comparing the mammography screening performance of three external AI CAD algorithms and radiologists within a true population-based screening cohort
M. Salm1, E. Wählín, K. Dembrower, M. Eklund, K. Smith, F. Strand; Stockholm/SE

RPS 605b-9 12:13
Evaluating the feasibility of fully automated mammography image positioning assessments
M. Abdoolie1, N. Paquet1, R. Duggan1, N. Sharma2, S. Hofvind1, S. E. Iles; 1Halifax/CA, 2Leeds/UK, 3Oslo/NO

RPS 605b-10 12:19
Differential diagnosis of benign and malignant breast lesions using ultrasound-derived texture analysis features and a machine learning approach
V. Romeo1, R. Cuocolo1, R. A. Apolito1, A. Ventimiglia1, A. Vitale1, R. Buonocore1, M. R. Argenzio1, M. P. S. Maurel1, M. Imbiroci1; 1Naples/IT, 2Salerno/IT, 3Castellamare di Stabia/IT, 4Pontecagnano Faiano/IT

RPS 605b-11 12:25
Machine learning ensembleed with a deep learning model to classify density and detect lesions in mammography studies

RPS 614 11:15 - 12:30 Room K

Radiographers

RPS 614b
Computed tomography: examination improvement

Moderators:
S. J. Foley; Dublin/IE
T. A. Yalynska; Kiev/UA

RPS 614b-1 11:25
Lead shielding significantly reduces the dose to the breasts during head CT: a phantom study
N. Zalokar1, N. Mekis2; 1Slovenska Bistrica/SI, 2Ljubljana/SI

RPS 614b-2 11:31
A comparison between two trauma CT protocols: can a multiphase contrast injection, single-pass acquisition be a viable technique in major trauma?
D. J. Biddle, S. Freeman, S. Upadhyay; Cambridge/UK

RPS 614b-3 11:37
The factors associated with radiation dose variation in cardiac CT angiography
M. F. M. McEntee1, A. B. Alhailiy2, E. U. Ekpo2, P. Kench2, E. Ryan2, P. C. Brennan1; 1Cork/IE, 2Sydney/AU, 3Brisbane/AU

RPS 614b-4 11:43
The accuracy of Hounsfield values with “artificial 120 kVp” reconstruction kernel on different tissues and kVp at multislice CT: a phantom study
M. Kukuljan1, M. Vestergaard; Esbjerg/DK

RPS 614b-5 11:49
40kV virtual mono-energetic image quality and optimisation of window settings in pancreas dynamic contrast enhancement
J. Xu1, Y. Yang, R. Chang, Q. Han, X. Chen, H. Dong; Shanghai/China

RPS 614b-6 11:55
Establishing DRLs for the most common CT procedures based on patients’ body mass indexes
N. Zalokar1, N. Mekis2; 1Slovenska Bistrica/SI, 2Ljubljana/SI
Cardiac

RPS 603b Connecting the heart with the lungs and the rest of the body

Moderators:
I. Carbone; Rome/IT
F. Wieske; Berlin/DE

RPS 603b-K 11:15
Keynote lecture
M. Nedevska; Sofia/BG

RPS 603b-1 11:25
Ventricular mass index for non-invasive treatment control of balloon pulmonary angioplasty in chronic thromboembolic pulmonary hypertension
A. Brosse1, M. Richter1, V. Bethke1, A. Hesse1, M. Richter1, K. Tello1, C. B. Wiedenroth1, G. Krombach1, F. Roller1; Giessen/DE
Bad Nauheim/DE

RPS 603b-2 11:31
Association of left and right ventricular strains with presence of pulmonary hypertension: a cine realtime feature-tracking study
V. Nizhnikova1, G. Reiter, U. Reiter, C. Kräuter, C. Reiter, G. Kovacs, H. Olschewski, M. Fuchsjaeger; Graz/AT

RPS 603b-3 11:37
Atrial measurements: can they predict adverse events in patients with acute pulmonary embolism (PE)?
R. R. Kirkbridge1, A. C. Monteiro1, D. C. Dabreo1, B. H. Heidinger1, D. M. Tridente1, C. Wiest1, G. Aviram1, B. J. Carroll1, D. Litmanovich1; Boston, MA/US, Kingstown, ON/CA, Vienna/AUT, Tel-Aviv/IL

RPS 603b-4 11:43
Unmasking the occult heart involvement in systemic sclerosis of recent onset: the role of strain imaging by using cardiac magnetic resonance
P. Palumbo, E. Cannizzaro, C. de Cataldo, F. Cobianchi Bellisari, P. Ruscitti, R. Giacomelli, P. Cipriani, E. Di Cesare, C. Masciocchi; L’Aquila/IT

RPS 603b-6 11:49
Myocardial deformation in patients having Takayasu’s arteritis with pulmonary artery involvement using cardiac magnetic resonance feature tracking
X. Guo, M. Liu, Z. Ma, T. Jiang, J. Gong; Beijing/China

RPS 603b7 11:55
Left ventricular function assessment in significant hypertension with primary aldosteronism: evaluation by cardiac magnetic resonance feature tracking
R. Shi, Z.-G. Yang, X.-M. Li, T. Pang; Chengdu/CN

RPS 603b-8 12:01
People living with HIV have diverse and independent forms of cardiac involvement: insights from cardiac magnetic resonance imaging
C. Arendt1, D. Leitnner, T. Wolf, A. Haberl, C. Stephan, T. J. Vogl, E. Nagel, P. de Leuw, V. Puntrmann; Frankfurt am Main/DE

RPS 603b-9 12:07
Selected clinical parameters and changes in cardiac magnetic resonance in patients with rheumatoid arthritis and ankylosing spondylitis without clinically apparent myocardial injury
W. Tanski, P. Gac, A. Chachaj, M. Sobiesczanska, R. Poleba, A. Szuba; Wroclaw/PL

RPS 603b-10 12:13
The effects of cardiac geometry, microcirculation, and tissue characteristics on cardiac deformation in silent diabetic cardiomyopathy
J. Li, Z.-G. Yang, Y.-K. Guo, Y. Gao, X. Liu; Chengdu/CN

RPS 603b-11 12:19
Combined dedicated lung and cardiac screening with third generation dual-source CT: potential for dose reduction
M. Vonder, M. Dorrius, R. Vliegenthart, G. de Bock; Groningen/NL

Interventional Radiology

RPS 609b Experimental

Moderators:
N.N.
F. Pedersoli; Maastricht/NL

RPS 609b-1 11:15
Validation of a dose tracking software for skin dose map calculation using on-phantom measurements with radiochromic films
P. E. Colombo1, F. Rottoli1, M. M. J. Felisi1, C. de Mattai1, S. Riga1, M. Sotto1, C. Dillino1, S. Massey1, A. Torresin; Milan/IT, Scottsdale, AZ/US

RPS 609b-2 11:21
Large biodegradable microspheres: evaluation using dynamic renal CT-perfusion in an experimental pig model

RPS 609b-3 11:27
MR-guided high-power microwave ablation in hepatic tumours: initial experience in clinical routine
S. Hoffmann, M. T. Winkelmann, S. Clasen, J. Weiß, G. Gohla, K. Nikolaou; Tübingen/DE

RPS 609b-4 11:33
The joint application of T1 and T2 mapping magnetic resonance imaging (MRI) for the characterisation of the tumour microenvironment in an untreated rabbit hepatic cancer model

RPS 609b-5 11:39
Fabrication of adriamycin/Fe3O4 gelatin microspheres via a high-voltage electrospraying method for embolisation
J. Li, J. Ji, C. Lu, N. Zhang; Beijing/China

RPS 609b-6 11:45
Identification of the effects on PD-1 and Tim-3 expressions and the function of T lymphocytes in tumour-bearing mice by RFA
M. Xu, T. Y. Huang, X. Y. Xie; Guangzhou, Guangdong/China
RPS 609b-7 11:51
Low-dose CBCT based on optimised source-detector trajectories for C-arm
S. Hatamikia; A. Biguri; G. Kronreif; J. Kettenbach; T. Russ; W. Birkfellner; Vienna/AT, Southampton/UK, Heidelberg/DE

RPS 609b-8 11:57
Phase-contrast imaging based on the microbubble monitoring of radiofrequency ablation: an ex vivo study
P. Haopeng; H. Wei; L. Jian; T. Rongbiao; W. Zhiyuan; D. Xiaoyi; W. Qingbing; W. Zhongmin; C. Kemin; Shanghai/CN

RPS 609b-9 12:03
A preclinical endogenous rat HCC model system for the prospective evaluation of imaging-derived biomarkers in interventional tumour therapy
F. Lohöfer; G. Kaisi; E. Bilemsrieder; P. Bohrer; J. Werner; R. Buchholz; E. J. Rummeny; R. Braren; P. M. Paprottka; Munich/DE, Münster/DE

RPS 609b-10 12:09
Monodisperse microspheres based on PMMA (polymethyl methacrylate) hydrogels: a novel embolisation agent tested in a rabbit renal model
F. N. Fieckenstein; F. Streitparth; B. Gebauer; D. Geisel; C. D. Schmidt; R. W. W. Günther; Berlin/DE

RPS 609b-11 12:15
Funnel-shaped catheter model decreases clot migration during mechanical thrombectomy
Y. Taniguchi; E. Payne; T. Gerber; L. Seidmann; A. Heimann; O. Kempski; N. Keric; M. A. Brockmann; S. Kirschner; Mainz/DE

RPS 609b-12 12:21
Photothermal-mediated local heating using a branched gold nanoparticle-coated stent to suppress stent-induced tissue hyperplasia in a rat’s gastric outlet
M. Kim; Jeju-si/KR

11:15 - 12:30 Room M 3
Chest

RPS 604b 11:25
Deep learning in chest radiograph and chest CT interpretation
Moderators:
A. Farchione; Rome/IT
C. F. Muñoz-Nuñez; Valencia/ES

RPS 604b-K 11:15
Keynote Lecture
E. Neri; Pisa/IT

RPS 604b-1 11:25
A clinical-radiomics nomogram based on radiographic features to assess pulmonary metastasis of osteosarcoma of the extremities
P. Yin; N. Hong; Beijing/CN

RPS 604b-3 11:31
Quantitative analysis of airway and parenchymal lesions in idiopathic pulmonary fibrosis using an artificial intelligence-based technology
T. Handa; K. Tanizawa; T. Oguma; N. Tanabe; T. Niwamoto; H. Shima; T. Kubo; K. Togashi; T. Hirai; Kyoto/JP

RPS 604b-4 11:37
Radiomic-based nomogram: a novel technique to predict the EGFR mutation status for first-generation EGFR TKI therapy
Q. Weng; J. Hui; H. Wang; C. Lan; M. Chen; P. Pang; M. Xu; Z. Wang; J. Ji; Lishui/CN, Hangzhou/CN

RPS 604b-5 11:43
3D computer-aided volumetry (CADv) system with AI system: a comparison of quantitative nodule component measurement accuracy and pulmonary nodule differentiation capability on repeated CT examination
Y. Ohno; K. Aoyagi; Y. Kishida; S. Seki; Y. Ueno; A. Yaguchi; T. Yoshikawa; Yoyoake/JP, Otawara/JP, Kobe/JP, Kawasaki/JP

RPS 604b-6 11:49
Objectively evaluating the labelling accuracy of the Stanford CheXpert dataset: a multi-reader study
H. Majajan; R. S. Rajan; V. K. Agarwal; M. Murugavel; V. K. Venugopal; V. Majajan; New Delhi/IN

RPS 604b-7 11:55
Leveraging deep learning artificial intelligence in detecting mismatched anatomy in chest images acquired with abdomen protocol: prevalence analysis and performance metrics
K. Y. Younis; K. Nye; G. Rao; T. Fischer; Waukesha, WI/US

RPS 604b-8 12:01
Quantitative image quality comparison of bone suppression images generated by dual-energy subtraction techniques and deep learning-based software
A. Son; K.-H. Do; G.-S. Hong; K.-W. Jo; K. P. Kim; J. H. Yun; Seoul/KR

RPS 604b-9 12:07
Preoperative CT-based radiomics combined with intraoperative frozen section can diagnose invasive adenocarcinoma in pulmonary nodules: a multicentre study
G. Wu; H. C. Woodruff; S. Sanduleau; T. Refae; A. Jochems; R. Leijenaar; P. Lambin; Maastricht/NL

RPS 604b-10 12:13
Development and validation of a deep learning-based model for automatic detection of tuberculosis on radiographs
D. Wang; S. Wu; H. Wang; T. Zou; Y. Sun; S. Drago Gonzalez; Y. Shen; Beijing/CN, Wiesbaden/DE

RPS 604b-11 12:19
A comparison of ultra-low-dose chest CT with deep learning reconstruction and standard-dose chest CT with hybrid reconstruction
C. Stevenson; J. Schueller; S. Rollison; T. Machado; A. Jones; P. Julien-Williams; J. Moss; M. Chen; Adelaide/AU, Bethesda/US

11:15 - 12:30 Room M 4
Neuro

RPS 611b 11:25
Multiple sclerosis
Moderators:
C. Gianni; Rome/IT
A. Rovira Cañellas; Barcelona/ES

RPS 611b-K 11:15
Keynote lecture
F. Barkhof; Amsterdam/NL

RPS 611b-1 11:25
Brain atrophy in multiple sclerosis and clinically isolated syndromes: a 30-year follow-up
I. Haidar; K. Chung; G. Birch; S. Mangesius; F. Prados; O. Ciccarelli; F. Barkhof; D. Chard; Vienna/AT, London/UK, Innsbruck/AT, Amsterdam/NL

RPS 611b-3 11:31
The bi-caudate ratio as an MRI marker of white matter atrophy in multiple sclerosis and ischaemic leukoencephalopathy
D. Seraq; S. A. H. Hassannein; Shebin El-Kom/EG

RPS 611b-4 11:37
A comparison study of three different methods for detection of T2/FLAIR signal changes in multiple sclerosis
R. Antulov; M. Kusl; V. Antonov; J. M. Christiansen; M. Dawari; E. M. H. Kruse; Esbjerg/DK, Middelfart/DK

RPS 611b-5 11:43
Cervical cord atrophy in MS: in search of a threshold area — a meta-analysis
A. Guarnara; C. C. C. Quattrocchi; V. Di Lazzaro; R. Papalia; B. B. Beomonte Zobel; Rome/IT
**RPS 611b-6** 11:49

Brain connectivity changes in CMTIA patients: a resting-state functional MRI study

T. Perring1, G. Pontillo1, S. Cocozza1, R. Dubbioso1, S. Tozza1, F. Manganelli1, M. Quarantelli1, A. Brunetti1; *Giugliano in Campania/IT, 1Naples/IT*

**RPS 611b-7** 11:55

Investigation of brain structural plasticity in CMTIA patients: a combined VBM and TBSS study

E. A. Vola1, G. Pontillo1, S. Cocozza1, R. Dubbioso1, S. Tozza1, F. Manganelli1, M. Quarantelli1, A. Brunetti1; *Naples/IT*

**RPS 611b-8** 12:01

The prediction of clinical disability in multiple sclerosis using a combined machine learning and texture analysis approach

S. Cocozza1, R. Cuocolo1, G. Pontillo1, L. Uggia1, M. Petracca1, R. Lanzillo1, V. Brescia Morra1, A. Brunetti1; *Naples/IT, 1Scafati/IT*

**RPS 611b-9** 12:07

Impact of enhancement and lesion size on quantitative susceptibility mapping values of multiple sclerosis lesions

G. Manasseri1, T. Hilbert1, M. J. Fartaria1, J. Deverdun1, T. Kober1, P.-P. P. Maeder1, P. Haggman1, V. Dunet1; *Lausanne/CH, 1Montpellier/FR*

**RPS 611b-10** 12:13

Microscopic anisotropy imaging without the confounding effect of fibre orientation dispersion can significantly improve the characterisation of pathology in multiple sclerosis

K. Winther Andersen1, S. Lasic1, H. Lundell1, M. Nilsson1, D. Topgaard1, F. Szczepankiewicz1, H. Roman Siebner1, M. Blinkenberg1, T. B. Dyrbj1; *Copenhagen/DK, 1Lund/SE*

**RPS 611b-11** 12:19

MR planimetric measurements for diagnosis and outcome prediction of multiple sclerosis

S. Mangesius1, S. Pereverzyev1, L. Lamplmayr1, L. Lenhart1, L. Haider2, G. Bste1h, S. Wurth1; *Lausanne/CH, 1Vienna/AT*

11:15 - 12:30 **Room M 5**

**Abdominal Viscera**

**RPS 601c** 11:15

Diffuse liver disease

Moderators:
U. I. Attenberger; Mannheim/DE
C. Stoupis; Maennedorf/CH

**RPS 601c-1** 11:15

Non-invasive quantification of hepatic steatosis using conventional ultrasonography with liver biopsy as gold standard

G. Weiers; Nijmegen/NL

**RPS 601c-2** 11:21

Non-invasive assessment of liver cirrhosis with multiphasic dual energy CT using iodine maps: correlation with model of end-stage liver disease score

D. Mastrodicasa1, M. J. Willemink2, C. Duran3, V. Hinostroza3, L. Molvin1, M. Khalaif, R. B. Jeffrey1, B. N. Patel1; *Stanford, CA/US, 1Menlo Park, CA/NL, 2Boston, MA/US*

**RPS 601c-3** 11:27

Quantification of local 3D texture maps for detection of fibrosis in the liver

W. Hamilton1, S. Carey1, B. E. Hoppel2, Z. Afraz1, P. Rogalla1; *Toronto/CA, 1Vernon Hills, WI/US*

**RPS 601c-4** 11:33

Liver vein to cava attenuation: a simple parameter to increase prediction value of caduate-right lobe ratio and liver segmental volume ratio to detect significant liver fibrosis on abdominal CT scans

J. Hrycysr1, V. C. Obmann1, C. Marx, W. Kajdi, D. Catucci, A. Berzigotti1, L. Ebner, A. Christe, A. T. Huber; *Berne/CH*

**RPS 601c-5** 11:39

Quantitative measurement of hepatic fibrosis on gadoxetic acid-enhanced magnetic resonance imaging in patients with chronic liver disease: multicentre study

Y. R. Kim1, Y. H. Lee1, D. M. Kang1, M. J. Kim1, T.-H. Kimi, K. W. Kim1, Y. Y. Jeong1, K.-H. Yoon1; *Iksan/KR, 1Seoul/KR, 1Jeonnam/KR*

**RPS 601c-6** 11:45

Functional liver imaging score derived from gadoxetic acid-enhanced MRI predicts outcomes in patients with chronic liver disease

L. Beer, N. Bastati-Huber, M. Mandorfer, S. Pötter-Lang, Y. Bican1, G. Semmier, B. Simbrunner, T. Reiberger, A. Ba-Ssalamah; *Vienna/AT*

**RPS 601c-7** 11:51

Multi-parameter magnetic resonance imaging for staging liver fibrosis and detecting macrophage polarisation

Y. M. Lu1, D. Wang; *Shanghai/CN*

**RPS 601c-8** 11:57

Multiparametric MRI for activity grading and staging of hepatic fibrosis: role of T2-mapping, multi-gradient-echo MRI, and MR elastography

S. M. Skawra; H. Honcharova-Blietska, S. Blumel, D. Segna, C. Jüngst, A. Weber, C. Gubler, C. S. Reiner; *Zurich/CH*

**RPS 601c-9** 12:03

Evaluation of liver fibrosis and cirrhosis on the basis of T1 mapping considering acute inflammation, age, and liver volume as confounding factors

C. Breit, D. Boll, D. J. Winkel, M. Henkel, T. Heye; *Basel/CH*

**RPS 601c-10** 12:09

T1 relaxation times of the liver and spleen to predict significant liver fibrosis: Is there an additional value of normalisation to the blood pool?

V. C. Obmann1, A. Christe, A. Berzigotti, J. T. Everhagen, L. Ebner, C. Gräni, A. T. Huber; *Berne/CH*

**RPS 601c-11** 12:15

Iron measurement by quantitative MRI-R2* at 3.0T and 1.5T

J. Yamamura1, S. Keller1, R. Grosse1, B. P. Schönnagel1, Z. J. Wang2, A. Agostini; Ancona/IT

**RPS 601c-12** 12:21

Quantitative MRI characterisation of NASH in a dietary rodent model

M. Dioguardi Burgio1, P. Garteiser2, F. Julea2, A. Abyzov2, V. Paradis1, V. Vilgrain1, B. van Beers1; *Lausanne/CH, 1Montpellier/FR*

11:15 - 12:30 **Tech Gate Auditorium**

**Artificial Intelligence and Machine Learning**

**RPS 605c** 11:15

Different views on artificial intelligence (AI) and machine learning (ML)

Moderators:
A. Agostini; Ancona/IT
P. Mc Laughlin; Cork/IE

**RPS 605c-1** 11:15

The use of AI-based applications in radiology and the liability of the medical practitioner: a law and economics analysis of the incentives towards automation in diagnosis

A. Bertolini1, G. Vatteroni2, F. Episcopo1, A. Chiti3, L. Balzarini2; *Clichy/FR, 1Paris/FR*

**RPS 605c-2** 11:21

Attitudes and perceptions of UK medical students towards artificial intelligence and radiology: a multicentre survey

D. S. Poon1, C. Sit1, A. Azam, A. Amlani, K. Muthuswamy, R. Sinivasan, L. Monzon; *London/UK*

**RPS 605c-3** 11:27

The impact of artificial intelligence on the choice of radiology as a medical specialty by undergraduate medical students

G. Irene Brandes Garcia, A. Azzolini, U. Dos Santos Torres, E. A. S. Bretas, G. de Souza Portes Meireles, G. D. Ippolito; *Sao Paulo/BR*
RPS 605c-4 11:33
How do expectations and attitudes towards artificial intelligence applications differ between radiologists and IT experts?
F. Jungmann, T. Jorg, R. Natalie, C. Duber, J. Stefanie, P. Mildenberger; Mainz/DE

RPS 605c-5 11:39
A European-wide needs assessment to prioritise technical procedures for simulation-based education in radiology
S. Nayaghahari1, E. Albrecht-Best1, L. Konge1, B. Brkljacic2, C. Catalano1, B. B. Ertl-Wagner1, K. Riklund1, M. B. Bachmann Nielsen1; 1Copenhagen/DK, 2Zagreb/HR, 3Rome/IT, 4Munich/DE, 5Umeå/SE

RPS 605c-6 11:45
Medicine in the digital age: artificial intelligence in medical education
F. Jungmann, K. Deutsch, S. Kuhn; Mainz/DE

RPS 605c-7 11:51
How scientific mobility can help the future of radiology research: a radiology trainee’s perspective
F. Pesapane; Milan/IT

RPS 605c-8 11:57
Resident quality control (RQC): introducing a new method for monitoring residents’ progress, strengths, and weaknesses, hence, tailoring and improving the residency program
H. Yasnar, N. Lezarowitz, D. G. Levy, D. Mercer, S. Adam, D. S. Barnes, A. Blachar; Tel Aviv/IL

RPS 605c-9 12:03
Implementation of artificial intelligence: is the community ready? An international survey of 1,041 radiologists and residents
M. Huisman1, E. R. Ranschaert2, W. Parker3, D. Mastrodicasa4, M. Kočí5, M. Chmiel6; 1Copenhagen/DK, 2Turnhout/BE, 3Vancouver/CA, 4Stanford, CA/US, 5Palo Alto, CA/US, 6Cologne/DE, 7Menlo Park, CA/US

RPS 605c-10 12:09
Anticipated hurdles and incorporation into residency programs of artificial intelligence (AI): an international survey of 1,041 radiologists and residents
M. Huisman1, E. R. Ranschaert2, W. Parker3, D. Mastrodicasa4, M. Kočí5, M. Pinto Dos Santos6, T. Leiner1, M. J. Willemink2; 1Cologne/DE, 2Turnhout/BE, 3Vancouver/CA, 4Stanford, CA/US, 5Palo Alto, CA/US, 6Cologne/DE, 7Menlo Park, CA/US

RPS 605c-11 12:15
The influence of AI-based computer-aided diagnosis systems on diagnosis confidence in medical experts with different levels of experience
J. P. M. Gawlitza1, P. Fries1, P. D. A. Heinz1, A. Bücker1, E. Jussupow2; 1Homburg/BE, 2Mannheim/DE

14:00 - 15:30 Room X

Student Session

S 7
My educational or social project at my university
Moderator:
C. Stroszczynski; Regensburg/DE

S 7-1 14:05
A simplified method to estimate the energy spectrum for megavoltage photon beams by monoenergetic depth dose library
P. Chakraborty, H. Saitoh; Tokyo JP

S 7-2 14:15
Reduction of microwave ablation needle-related metallic artefacts from virtual monoenergetic images using dual-layer detector spectral CT in rabbit VX2 hepatocellular carcinoma models
G. Wang1; 1ZhangJ, Z. Wang, X. Lu, Z. Jin; 1Beijing/ CN, 2Shenyang/ CN

S 7-3 14:25
Missed lung cancers on radiographs and CT
A. S. Leylo, A. P. Parkar; Bergen/NO

S 7-4 14:35
Fully automated quantification of left ventricular volumes and function in cardiac MRI: an evaluation of a deep learning-based algorithm
B. Böttcher, E. Beller, A. Busse, F. Streekbach, M. -A. Weber, F. Meinel; Rostock/DE

S 7-5 14:45
The diagnostic accuracy of regadenoson perfusion cardiac magnetic resonance imaging in individuals with known or suspected coronary artery disease
A. Azzona1, M. Roncal Redin1, I. Soriano1, A. Paternain Nuin1, A. Ezponda Casajus2, G. Bastarraka Alemán2, I. Zizur Mayor/ES, 2Pamplona/ES

S 7-6 14:55
The establishment of a student sonography course: from zero to over 1,000 in 2.5 years
L. Müller, J. Weimer; Mainz/DE

S 7-7 15:05
Is gadolinium-enhanced imaging necessary in the surveillance of non-operated cranial meningioma?
P. J. Shah, K. E. Twentyman, S. Currie, I. Craven; Leeds/UK

S 7-8 15:15
3D printed models: the new revolutionary tool in medical education
A. S. Constantinescu1, E. Liciu2; 1Voluntari/RO, 2Bucharest/RO
RPS 701-9 14:42
Utility of dynamic oesophagogram in the grading of achalasic patients: comparison with static x-ray barium swallow and correlation with clinical subtypes
G. Fontanella; C. A. T. Manganiello; M. Mancinelli; A. Festa; S. de Luca; B. Brogna; S. Borrelli; *Benevento/IT, 1Naples/IT

RPS 701-10 14:48
A non-invasive model for predicting the malignant potential for gastrointestinal stromal tumours by using contrast-enhanced ultrasonography with gastric distention
T. Li; M. Lu; Chengdu/CN

RPS 701-11 14:54
Differential diagnosis and mutation stratification of gastrointestinal stromal tumours on CT images using a radiomics approach
M. P. A. Starmans; M. J. M. Timbergen; M. Vos; M. Renckens; D. J. Grünhagen; G. J. van Leenders; S. Sleijfer; J. J. Visser; S. Klein; Rotterdam/NL

RPS 701-12 15:00
Gastrointestinal stromal tumours (GISTs): an imaging perspective
P. Gupta; V. Choudhary; *Jammu/IN, 1New Delhi/IN

RPS 701-13 15:06
Development and validation of a nomogram based on CT images and 3D texture analysis for preoperative prediction of the malignant potential in gastrointestinal stromal tumours
C. Ren; Shanghai/CN

RPS 701-14 15:12
Development and validation of a risk model based on deep learning method for preoperative prediction of occult peritoneal metastasis in gastric cancer
D. Liu; Z. Huang; B. Wu; P. Yu; *Chengdu/CN, 1Beijing/CN

RPS 701-15 15:18
Gastrointestinal stromal tumours (GISTs): the relationship between preoperative imaging features on contrast-enhanced computed tomography (CECT) and pathologic risk stratification
S. Guerra; G. Danti; G. Grazzini; A. Masserelli; S. Pradella; V. Miele; 1Bologna/IT, 2Florence/IT

14:00 - 15:30 Studio 2020

Radiographers

RPS 714
Hot topics in computed tomography and radiotherapy practice
Moderators:
N.N.
J. Reponen; Oulu/FI

RPS 714-1 14:00
Radiation therapists and occupational burnout: a national survey in Italy
P. Cornacchione; F. Felli; C. Galdieri; D. Pasini; D. Lamberti; S. Durante; D. Catania; M. Zanardo; 1Rome/IT, 2Trent/IT, 3Milan/IT, 4Reggio Emilia/IT, 5Bologna/IT

RPS 714-2 14:06
Development of a training program for 3D CBCT image verification in prostate cancer
C. L. Coelho; S. Pinto; A. Dias; C. Castro; *Porto/PT, 1Aveiro/PT

RPS 714-3 14:12
Offline adaptive radiation therapy for prostate cancer: using daily CBCT and deformable image fusion for correct replanning
L. Capone; F. Lusini; L. Nicolini; F. Cavallo; D. Di Minico; G. Triscari; V. Forte; 1Rome/IT, 2Mirabella Eclano/IT

RPS 714-4 14:18
Radiation exposure levels used for planning and verification during prostate radiotherapy treatment
R. G. Monteiro; M. Mariano; J. Santos; Coimbra/PT

RPS 714-5 14:24
Analysis of radiotherapy performance using quality indicators derived from automated treatment pathways
L. Capone; F. Lusini; L. Nicolini; F. Cavallo; D. Di Minico; Rome/IT

RPS 714-6 14:30
Evaluation of the reproductibility abdominal compression with thermoplastic mask in adrotherapeutic treatment with carbon ions and respiratory gating
L. Anemone; A. Mancin; C. M. I. Diegoli; A. Vai; V. Vitolo; F. Valvo; S. Tampellini; A. Barcellini; Pavia/IT

RPS 714-7 14:36
Planning and verification of radiation exposure in head and neck radiotherapy treatment
M. F. N. Coelho; M. Mariano; J. Santos; Coimbra/PT

RPS 714-8 14:42
Evaluation of radiation dose and image quality for comparison of state-of-the-art intraoperative cone-beam CT and preoperative MSCT for spine surgery navigation
M. Fujii; K. Doi; J. Miyagawa; N. Tamara; M. Taniguchi; Y. Fujinaga; 1Matsumoto/JP, 2Willowbrook, IL/US

RPS 714-9 14:48
Safe administration of contrast media: adding shine to the shades of grey
R. Hassan; P. P. Wall; A. Chethan Kumar; S. Kānumukīlakṣīmīnaraṇyana; B. Singh; S. Gopalani; A. Nagadi; H. C. Chadaga; A. Kumar; Bangalore/IN

RPS 714-10 14:54
Systematic review and meta-analysis on risk factors and interventions to prevent contrast media extravagations in patients undergoing computed tomography
S. Ding; C. Campeau; N. Richil; G. Gullo; Lausanne/CH

RPS 714-11 15:00
The individualisation of CT-protocols for suspected pulmonary embolism: a national survey
A. Rusanu; B. Dymbe; E. V. Mæland; J. R. Styve; Trondheim/NO

RPS 714-12 15:06
Stroke imaging: a multiphase CT angiography standard protocol for the improvement for hub-and-spoke hospital organisation
E. Stefanelli; M. Centenaro; L. Baldi; E. Delazer; M. Gambaretto; G. Molenar; T. Nistri; 1Coniglio/IT, 2Treviso/IT

RPS 714-13 15:12
Good practices for radiographers: patient installation and centring for brain-CTs
V. Berclaz; C. Chevalier; C. Bruguier; J.-B. Ledoux; Lausanne/CH

RPS 714-14 15:18
CT scan anthropometric study of the frontal sinus for sexual diagnosis: first results from a documented osteological collection (Portugal, 19th-20th centuries)
P. M. Martins; R. C. M. C. R. Gaspar; A. Silva; B. Magalhães; 1Aveiro/PT, 2Coimbra/PT

RPS 714-15 15:24
Values-based radiography: what patients, radiographers, and managers value in their examinations and treatments
A. Newton-Hughes; R. Strudwick; 1Salford/UK, 2Ipswich/UK
**RPS 702**

**Artificial intelligence, radiomics and more: part 1**

Moderators:
- O. H. Arponen; Tampere/FI
- K. Pinker-Domenig; New York; NY/US

**RPS 702-1**

Breast cancer detection in mammography using artificial intelligence: a large-scale retrospective evaluation

**RPS 702-2**

Breast cancer detection in screening mammography using artificial intelligence: a multicentre retrospective reader study

**RPS 702-3**

Reducing the radiologist's workload by detecting normal mammograms with an AI system

**RPS 702-4**

The value of 2D-AI-based CAD for second or third reading tested on 17,910 screening mammograms
- S. H. Heywang-Köbrunner, A. Jänsch, C. Mieskes, M. Hertlein, A. Hacker; Munich/DE

**RPS 702-5**

Mammographic case conspicuity: a comparison between a 2D-AI and a 3D-AI breast density estimation tool

**RPS 702-6**

Acceptability of 3D printed breast models and their impact on the decisional conflict of breast cancer patients
- L. Santiago, E. Arribas, D. Black, C. Checka, J. Lee, R. Volk; Houston, TX/US

**RPS 702-7**

Improving radiologist performance in breast cancer detection with the concurrent use of an artificial intelligence tool

**RPS 702-8**

Validation of a deep learning-based breast density estimation tool on a Danish screening cohort in the context of personalised risk-based screening

**RPS 702-9**

Reproducibility of a semiquantitative scoring system to assess breast arterial calcifications (SSS-BAC) on mammography

**RPS 702-10**

Deep learning-based calcification segmentation for imperfect mammography data
- M. Jie, M. Xu, X. Lin, Y. Zhang, Z. Cao, S. Wu, L. Huang, M. Wu, Y. Wang; 'Shenzhen/CN, 'Palo Alto/US

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**Cardiac**

**RPS 703**

**Cardiac function: advanced imaging techniques**

Moderators: N.N.

**RPS 703-1**

4D-flow-derived mitral valve vortex ring: the relationship with left ventricular function

**RPS 703-2**

Quantitative assessment of left ventricular regional myocardial strain changes in patients with coronary chronic total occlusion using cardiac magnetic resonance: a pilot study
- K. Liu, Z. Li, C. Xia, K. Diao; Chengdu/CN

**RPS 703-3**

Academic challenge meets reality: the transfer of a cardiac ventricle segmentation algorithm to clinical data
- C. Anastasopoulos, P. Full, T. Akinci D’antonelli, F. Isensee, P. Haaf, K. Maier-Hein, J. Bremerich, B. Stieltjes, G. Sommer; 'Basel/CH, 'Heidelberg/DE

**RPS 703-4**

Retro-gated compressed sensing cardiac cine imaging: sharper borders and accurate ventricular quantification in 60 seconds
- B. Longere, L. Grenier, J. Pagniez, V. Silvestri, A. Simeone, M. Schmidt, C. Formari, F. Pontana; 'Lille/FR, 'Erlangen/DE

**RPS 703-5**

The role of strain analysis in patients with suspicious arrhythmogenic cardiomyopathy

**RPS 703-6**

Compressed sensing 4D flow assessment of parameters of left ventricular diastolic function

**RPS 703-7**

Extra-cellular volume (ECV) of the left and right ventricle as a marker to triage diastolic dysfunction
- A. Kapoor, G. Mahajan, A. Kapoor; Amritsar/IN

**RPS 703-8**

Age and sex-related influences on left atrial phasic function in type 2 diabetes mellitus patients from a Chinese population: a feature tracking cardiovascular magnetic resonance imaging
- M.-T. Shen, Z.-G. Yang; Chengdu/CN
RPS 703-9 14:48
Myocardial mass corrected strain yields high diagnostic performance to differentiate between health and disease
M. Larisch, S. Benz, T. Leckebusch, T. Klimzak, M. Michael, T. Emrich, K.-F. Kreitner, M. Oudkerk

RPS 703-10 14:54
Global myocardial strains in pulmonary hypertension: association with severity of the disease
V. Nizhnikaya, G. Reiter, C. Reiter, K.-F. Kreitner, M. Larisch, C. Düber, K.-F. Kreitner, T. Emrich

RPS 703-11 15:00
Feasibility and value of right atrial strain in patients with inoperable chronic thromboembolic pulmonary hypertension (CTEPH)

RPS 703-12 15:06
U-Net convolutional neural network and B-spline deformable image registration for fully-automated strain calculation is feasible in the study of health in Pomerania
C. Grigoratos, G. Todiere, A. Barison, A. Pepe, I. Koll, E. Wichter, C. Grigoratos, G. Todiere, A. Barison

RPS 703-13 15:12
Pressure-volume relationship by stress cardiovascular magnetic resonance: feasibility and clinical implications

RPS 703-14 15:18
Effectiveness of cardiovascular magnetic resonance combined strain value in the determination of ejection fraction

RPS 703-15 15:24
Left atrial strain imaging: a comparison between conventional and highly accelerated cine imaging
G. Bisso, C. Reichhardt, S. Altman, I. A. Abdoye, C. Düber, K.-F. Kreitner, T. Emrich, I. A. Abidoye, M. C. Halfmann

CTiR 7-4 14:25
Discussant
P. Clauser; Vienna/AT

CTiR 7-5 14:30
Multicenter prospective comparison of the TROcar versus SELDinger technique for percutaneous Cholecystotomy: the TroSelC Trial

CTiR 7-6 14:40
Discussant
A. L. Bojanovic; Niš/RS

CTiR 7-7 14:45
Building an advanced medical image anonymisation system by integrating open-source tools in a large multi-center cross-modality AI imaging project

CTiR 7-8 14:55
Discussant
T. de Bonnet; Antwerp/BE

CTiR 7-9 15:00
Abbreviated MRI randomised study in breast cancer survivors: does it impact patient anxiety?

CTiR 7-10 15:10
Discussant
S. Perez Rodrigo; Madrid/ES

CTiR 7-11 15:15
Diagnostic performance of ultrasound in patients with pancreatic ductal adenocarcinoma: a multi-centered population-based observational study
J. Kang, M. Abdolell, A. Costa, Halifax, NS/CA

CTiR 7-12 15:25
Discussant
T. Denecke; Leipzig/DE

RPS 706 14:00 - 15:30 Room M 1

Hybrid, Molecular and Translational Imaging

RPS 706-1 14:10
Dynamic $^{18}$F-FET PET as an independent prognostic factor in de-novo oligodendroglioma

RPS 706-2 14:16
Comprehensive functional evaluation of the spectrum of multi-system atrophy with $^{18}$F-FDG PET/CT and $^{99m}$Tc TRODAT-1 SPECT: 5 years experience from a tertiary care centre
R. Verma, R. Ranjan, H. Mahajan, E. Belho, V. Gupta, N. Senaray, N. Gupta, V. Mahajan, New Delhi/IN

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S 8
My scientific paper in the field of dose optimisation, abdominal imaging, Doppler ultrasound and musculoskeletal imaging
Moderator:
L. M. M. Sconfienza; Milan/IT

S 8-1
16:15
Evaluation of a tube voltage-tailored contrast media injection protocol for coronary CT angiography
R. H. Savage1, A. F. Abadia1, S. S. Martin5, A. Varga-Szemes1, A. Fischer1, U. J. Schoepf1, C. Tesche5, P. Sahbaee1, V. Vinigianni5; Charleston, SC/US, 1Frankfurt am Main/DE, 2Charleston/US, 3Munich/DE, 4Rome/IT

S 8-2
16:25
Interventional cardiology: patient exposure to radiation and interoperator variability — a healthcare group investigation
J. Anderson1, M. Zanardo2, B. Smith1, M. Maher1, L. Fox1, A. Anderson1, L. A. Rainford1; Balbriggan/IE, 2Di Milano/IT, 3Dublin/IE

S 8-3
16:35
Scattered radiation in mobile chest AP in ICU
M. Antikainen, M. Sarjanoja, K. Tuominivaara, T. S. Schroderus-Salo, A. Henner; Oulu/FI

S 8-4
16:45
Convolutonal neural network-based volumetric segmentation of the liver compared with semi-automatic and manual methods
B. Budai, P. Borsos, P. Magyar, V. Bérczi, P. N. Kaposi; Budapest/HU

S 8-5
16:55
Split-bolus and single-pass CT of the abdominal district
A. Missere, N. Raiano; Naples/IT

S 8-6
17:05
Vascular activity in rotator cuff tendinopathy: evaluation with conventional Doppler ultrasound and superb microvascular imaging (SMI)
C. C. Ooi, K. Q. Teng, S. K. Wong, G. M. Tan, V. C. Ma, S. N. Mohamed, P. C. Mohan, T. S. Howe, M. A. Png; Singapore/SG

S 8-7
17:15
Body composition in elderly lung transplantation recipients assessed by pre-transplantation computed tomography scans predicts the outcome after lung transplantation
My Thesis in 3 Minutes

MyT3 8 Oncologic Imaging

Moderators:
C. Johnston; Dublin/IE
O. V. Kucheruk; Moscow/RU

MyT3 8-1 16:00 The value of diffusion-weighted MRI in differentiating benign from malignant rectal tumours and assessing the grading of the malignant tumours A. H. Albu Mohammed; D. A. Al-Hillary; Baghdad/IQ

MyT3 8-2 16:04 Role of 18F-FDG PET-CT in detection and staging of hepatocellular carcinoma H. Abdelhalim, M. Houseni, M. Elsakhawy, N. Abd Elbary, O. Elabed; Shebeen El-Kom/EG

MyT3 8-3 16:08 Whole-body low-dose CT scan imaging quality and radiation dose in multiple myeloma: a comparison between 128-slice and 64-slice scanners A. Ahmed, P. Kiey, J. Saunders; Limerick/IE

MyT3 8-4 16:12 Predicting response to therapy of locally advanced rectal cancer: radionuclide analysis from MR imaging M. Miclotta1, G. Cappello1, V. Giannini1, A. Defeo1, S. Mazzetti1, S. Cirillo1, D. Regge1; Turin/IT, Candiolo/IT

MyT3 8-5 16:16 Pre-operative CT staging of borderline pancreatic cancer patients after neoadjuvant treatment: its accuracy in the prediction of vascular invasion and resectability S. Ahmed; Assiut/EG

MyT3 8-6 16:20 Measurement of the volume of a metabolically active tumour by PET/CT with 18F-FDG: a new criterion for the status of the disease in patients with multiple myeloma A. Sergey, V. Troyan, S. V. Kozyrev, O. A. Rukavitsyn; Moscow/RU

MyT3 8-7 16:24 Multi-parameter model-based on dual-energy CT predicts mediastinal lymph node metastasis in lung cancer patients X. Hu, Q. Gu, K. Zhang, P. Li, H. Shen; Changsha/CN

MyT3 8-8 16:28 Qualitative assessment in radiotherapy of lung cancer using gemstone spectral imaging L. Weihua, Y. Wang, F. Lin, Y. Lei; Shenzhen/CN

MyT3 8-9 16:32 Exploring the implications of modified advanced lung cancer inflammation index on outcomes in patients with advanced non-small cell lung cancer D. Goyal, A. Mahajan, K. Prabhash; Mumbai/IN

MyT3 8-10 16:36 Application of the new anaesthetic protocol N.O.R.A. (non-operating room anaesthesia) for osteoid osteoma percutaneous treatment A. Paladini1, A. Borzelli1, F. Pane1, M. Spinetta1, D. Negroni1, A. Galbiati1, I. Percivali1, Z. Falaschi1, D. Zagaria1; Novara/IT, Naples/IT

MyT3 8-11 16:40 LDCT the saviour? Low-dose CT chest as a cost-effective tool for lung cancer screening in developing countries A. V. Alexander; A. Babu; Thiruvalla/IN

MyT3 8-12 16:44 Integrated PET/MRI for therapy response assessment of patients with Ewing sarcoma: preliminary results J. Grueneisen1, M. Chodyla1, B. M. Scharaschmidt1, Q. Martin2, M. Forsting2, K. Herrmann3, L. Umutul3; Essen/DE, Düsseldorf/DE

MyT3 8-13 16:48 Multi-parametric MRI approach for post-TACE HCC M. Elmansy, M. Elrakhawy, M. A. El-Adalany; Mansoura/EG

MyT3 8-14 16:52 Multidisciplinary approach in the diagnosis of primary and secondary lung and pleura tumours in cases of synchronous and metachronous cancers L. Petrychenko; Dnipro/UA

MyT3 8-15 16:56 Assessment of body composition using magnetic resonance imaging and association with clinical outcomes in patients with colorectal and lung cancer N. Sakai, A. Bhagwanani, J. Khalastrhy, M. Hall-Craggs, S. A. Taylor; London/UK

MyT3 8-16 17:00 A preliminary study of spectral imaging characteristic differences among tumour tissue, transition tissue and normal tissue of pancreatic cancer W. Wu, Y. Xu; Guangzhou/CN

MyT3 8-17 17:04 The role of diffusion-weighted magnetic resonance imaging in the assessment of response to treatment in cervical cancer patients after chemo-radiation therapy G. Zanirato Rambaldi, M. Giannotta, A. Galuppi, E. Salizzoni; Bologna/IT

MyT3 8-18 17:08 Correlation between diffusion-weighted MRI and the expression of PCNA and Ki-67 in cervical cancer cells Z. Ma, X. Zhao; Zhengzhou/CN

MyT3 8-19 17:12 Does whole-body PET/MRI of abdominal cancers offer additional findings compared to contrast-enhanced CT? S. G. Gut, B. Kovuncu Sokmen; Istanbul/TR

MyT3 8-20 17:16 Acoustic radiation force impulse elastography as a response evaluation tool for transarterial chemoembolisation in the treatment of hepatocellular carcinoma J. Moideen, I. Subbanna, V. Bhargavi; Bengaluru/IN


MyT3 8-22 17:24 The prognostic value of neutrophils lymphocyte ratio (NLR) in patients treated with trans-arterial chemoembolisation with epirubicin particles for hepatocarcinoma A. G. Chimenti1, G. Zanirato Rambaldi1, M. Giannotta2, A. Rebonato; Bologna/IT, Pesaro/IT
Interventional Radiology

RPS 909

Neuro-interventions

Moderators:
H. Patel; Ahmedabad/IN

RPS 909-1 08:30
Investigation of two FD stents’ EMSA variation at a giant aneurysm neck by using virtual stent deployment
G. Guclu1, T. Gündaydin1, C. Unsal1, A. B. Olcay1, C. Bilgin1, B. Hakyemez2; 1Istanbul/TR, 2Ankara/Bursa/TR

RPS 909-2 08:36
MRgFUS thalamotomy: the potential value of periprocedural parameters as a predictive tool for evaluating tremor treatment outcomes
M. Martino, A. Gagliardi, E. Tommasino, M. Allevi, F. Bruno, F. Arrigoni, A. Catalucci, P. Sucapan, C. Masciocchi; L’Aquila/IT

RPS 909-3 08:42
The impact of balloon guide catheter usage in a mechanical thrombectomy on tissue integrity of the penumbra
M. T. Berndt, T. Boeckh-Behrens, J. Kaesmacher, C. Zimmer, B. Friedrich, F. Mück, S. Wirth, C. Maegerlein; Munich/DE

RPS 909-4 08:48
Preliminary experience of endovascular embolisation of cerebral dural arteriovenous fistulas with SQUID 12
E. Lozupone, P. Trombatore, L. Milonia, F. D’argento, A. Alexandre, I. Valente, A. Pedicelli; Rome/IT

RPS 909-5 08:54
Radiation exposure of patients during interventional neuroradiology procedures
V. Opancina, R. Vojinovic, Kragujevac/RS

RPS 909-6 09:00
Quantitative collateral vessel density associated with the prognosis of mechanical thrombectomy on intracranial large vessel occlusion: an initial study based on CT perfusion imaging
Z. Shi, M. Yang, H. Wang, J. Lu; Shanghai/CN

RPS 909-7 09:06
Automated contrast-uptake measurements on single-phase CT angiography for stroke triage

RPS 909-8 09:12
Prognostic value of semi-quantitative collateral assessment in the endovascular treatment of ischaemic stroke
M. V. M. Micelli, P. Palumbo, G. Bianchi, A. Izzo, F. Bruno, M. Varrassi, S. Carducci, A. V. Giordano, C. Masciocchi; L’Aquila/IT

RPS 909-9 09:18
6 to 24 hours endovascular thrombectomy for large intracranial vessel occlusion without perfusion CT patient selection: a single-centre experience
E. Lozupone1, F. D’argento2, C. Colosimo1; 1Rome/IT, 2Taviano/IT

RPS 909-10 09:24
The clinical application of low-dose CT-guided craniocerebral puncture biopsy
Y. Liu, J. Dong, Z. Zhou, Z. Lu, Y. Pan; Zhengzhou/CN

RPS 909-11 09:30
Contrast-enhanced ultrasound-guided transoral core-needle biopsy: a novel, safe, and well-tolerated procedure for obtaining high-quality tissue in patients with oral cancer
M. Lu, T. Wei; Chengdu/CN

RPS 909-12 09:36
High blood pressure levels after endovascular treatment for ischaemic stroke are associated with worse outcome: results from the MR CLEAN registry
N. Samuels1, R. van de Graaf2, C. van Den Berg3, J. Hofmeijer2, Y. Roos2, B. Roozenbeek1, H. Lingsma1, D. W. J. Dippel, A. van der Lugt1; 1Rotterdam/NL, 2Amsterdam/NL

RPS 909-13 09:42
Repetitive transarterial chemoperfusion in recurrent malignant head and neck neoplasms: local response rate and survival
T. J. Vogl, A. Tröger, T. Stöver, T. Gruber-Rouh; Frankfurt am Main/DE

RPS 909-14 09:48
Mechanical thrombectomy using TIGER
L. Will, V. Maus, S. Fischer, Bochum/DE

RPS 909-15 09:54
One-stop management with perfusion for transfer patients with stroke due to a large-vessel occlusion: feasibility and effects on in-hospital times
A. Brehm1, I. Tsogkas1, I. Maier2, H. J. Eisenberger2, Y. Pengfei1, J. M. Liu1, J. Liman1, M.-N. Psychogios1; Basel/CH, 2Göttingen/DE, 3Changhui/CN

Artificial Intelligence and Machine Learning

RPS 905

Artificial intelligence and machine learning for ultrasound

Moderators:
V. Cantisani; Rome/IT
M. Huisman; Utrecht/NL

RPS 905-1 08:30
Fully automatic femur length measurement in ultrasound images by a novel hybrid approach based on a convolutional network
M. Ghelich Oghli1, R. Gerami2, S. Moradi1, N. Sirjani1, A. Shabanzadeh1, P. Ghaderi1, I. Shiri1; Karaj/IR, 2Tehran/IR, 3Geneva/CH

RPS 905-2 08:36
A ternary classification of chronic liver disease with a neural network using ultrasound B-Mode and shear-wave elastography examination parameters
P. Drazinos1, I. Gatos1, I. Theotokas2, S. Yarmenitis3, A. Soultatos2; 1Kifissia/GR, 2Athens/GR, 3Marousi/GR

RPS 905-3 08:42
A preliminary study of parametric imaging with a contrast-enhanced ultrasound to predict luminal A breast cancer
L. Tang, J. Jiang, M. Chen; Shanghai/CN

RPS 905-4 08:48
Machine learning analysis in the prediction of placenta adhesion disorder in patients with placenta previa using ultrasound derived texture features
F. Verde, V. Romeo, R. Cuocolo, L. Sarno, S. Migliorini, A. Stanzione, M. D’armiento, A. Brunetti, M. P. S. Maurea; Naples/IT

RPS 905-5 08:54
Transfer learning radiomics based on multimodal ultrasound imaging for staging liver fibrosis: a pilot study
H. Ding, L. Y. Xue, Y.-L. Zhu, W.-P. Wang, J.-H. Yu; Shanghai/CN

RPS 905-6 09:00
Design and development of a convoluted neural network model for the detection and classification of ultrasound image-based thyroid nodules
B. Marconi Narvaez, F. Lubinus, Y. Arias, A. Ortiz; Bucaramanga, Santander/CO

RPS 905-7 09:06
No sonographer required: a feasibility study to investigate if midwives in resource-limited settings are able to acquire a prenatal ultrasound within two hours
T. L. A. van Den Heuvel, B. van Ginneken, C. L. de Korte; Nijmegen/NL
MyT3 9 - 08:46
Deep convolutional neural networks-based coronary computed tomography angiography for CAD classification
Z. Huang, X. Wang, J. Xiao, Z. Li, Y. Xie, Y. Hu; Wuhan/CN

MyT3 9 - 08:50
Impact of an artificial intelligence-based noise reduction algorithm on image quality in low-dose coronary CT angiography of obese patients
P. Liu, Y. Wang, M. Yu, Z. Liu, M. Wang, Z. Jin; Beijing/CN

MyT3 9 - 08:54
Digitised patient history in computed tomography: data acquisition with mobile tablet computers

MyT3 9 - 08:58
Whole-tumour texture analysis of apparent diffusion coefficient maps for distinguishing lateral ventricle central neurocytoma from ependymoma
W. Wang, J. Cheng, Zhengzhou/CN

MyT3 9 - 09:02
Convolutional neural networks for automated fracture detection and localisation on ankle radiographs
Q. Xie, B. Yin, Y. Lu, X. Li, D. Geng; Shanghai/CN

MyT3 9 - 09:06
Machine learning-based analysis of nasopharyngeal carcinoma: MRI radiomics for prediction of recurrence or metastasis
O. Bao, D. Luo, S. Dai, Y. Geng; Beijing/CN

MyT3 9 - 09:10
Radiomics on 18F-FDG PET and CT images can differentiate lymphomatous from metastatic lymphadenopathy
Y. Ou, Z. Bo, J. Wang, F. Pang, J. Wu, Z. Zhao, P. Cao, X. Ma; Chengdu/CN, Nanjing/CN

MyT3 9 - 09:14
Segmentation of heart from chest x-ray images using U-net
O. Klarov, A. Timofeev, D. Zakharova, S. Permyakov, E. Nikiforov, D. Egorov; Yakutsk/RU

MyT3 9 - 09:18
Whole-tumour texture analysis of apparent diffusion coefficient maps obtained using 3.0T MRI for distinguishing uterine endometrial carcinoma from endometrial polyps
W. Wang, J. Cheng, Y. Zhang; Zhengzhou/CN

MyT3 9 - 09:22
Radiomics analysis of 18F-FDG PET/MR datasets for the prediction of therapy response of isolated limb perfusion in patients with soft-tissue sarcomas
J. Grunewald, M. Chodyla, A. Demircioglu, M. Forsting, K. Herrmann, O. Martin, L. Umutlu; Essen/DE, Düsseldorf/DE

MyT3 9 - 09:26
Deep learning-based evaluation of normal bone marrow activity in 18F-NaF PET/CT in patients with prostate cancer
S. Lindgren Belal, O. Enqvist, J. Uelsen, L. Edenbrandt, E. Trägårdh; Malmö/SE, Gothenburg/SE

MyT3 9 - 09:30
Machine learning and radiomics analysis of breast MRI for prediction of grading, hormone receptor status and lymph node metastases in patients with breast cancer
M. Chodyla, J. Grunewald, O. Martin, J. Haubold, M. Forsting, F. Nensa, L. Umutlu; Essen/DE, Düsseldorf/DE

MyT3 9 - 09:34
Clinical value of MRI texture analysis for differentiating solitary fibrous tumours/hemangiopericytoma from angiomatous meningioma based on ADC and enhanced TIWI images
S. Zhang, J. Cheng; Zhengzhou/CN

MyT3 9 - 09:38
DoseGuard: a fully automated and fast Monte Carlo-based dose calculation system for interventional radiology
N. J. Staud, G. Paiva Fonseca, C. Jeukens, A. Vaniqui, M. Podesta, S. van Hoof, F. Verhaeghen; Maastricht/NL

MyT3 9 - 09:42
Preoperative prediction of microvascular invasion in hepatocellular carcinoma
Y. Dong, Q. Zhang, Z. Yao, J. Yu, W. Wang; Shanghai/CN

MyT3 9 - 09:46
Clinical value of MRI texture analysis for differentiating solitary fibrous tumours/hemangiopericytoma from angiomatous meningioma based on ADC and enhanced T1WI images
M. Chodyla, J. Grueneisen, O. Martin, J. Haubold, M. Forsting, L. Umutlu; Essen/DE, Heidelberg/DE
**RPS 916**

**Brain, head and neck tumours: advanced imaging and radiomics**

Moderators: G. Zanirato Rambaldi; Bologna/IT
C. Stippich; Heidelberg/DE

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**RPS 916-K 08:30**

Keynote lecture

A. Raddusch; Heidelberg/DE

**RPS 916-1 08:40**

GLINT GlucoCEST in neoplastic tumours at 3T: the first clinical results of GlucoCEST in brain tumours

T. Lindig1, B. Bender1, K. Herz1, A. Deshmagne1, J. Schittenhelm1, X. Golay2, K. Scheffler1, U. Ernemann1, M. Zais1; Tübingen/DE, London/UK

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**RPS 916-2 08:46**

T2-FLAIR mismatch in grade II and III gliomas: fifty shades of mismatch?


**RPS 916-3 08:52**

MRI diffusion kurtosis imaging and a location-specific analysis for paediatric glioma grading

I. P. Voicu1, A. Napolitano1, M. Vinc1, E. Miele1, A. Carboni1, A. Mastronuzzi1, M. Cau1, G. S. Colafati1; Rome/IT, Chieti/IT

**RPS 916-4 08:58**

Tumour microvascular normalisation enhancing CAR-T immunotherapy to glioblastoma via MRI

X. Chen, T. Xie; Chongqing/CH

**RPS 916-5 09:04**

Cerebral blood volume measurement at tumour-microvasculature derived from local image variance of susceptibility-weighted imaging in glioblastomas: correlation with IDH mutational status

H. Wu1, X. Zhou1, W. Zhang1; Chongqing/CH, Shanghai/CH

**RPS 916-6 09:10**

Remodelling tumour microenvironments through inhibiting the glycolytic activator PFKFB3 to synergise with antiangiogenic therapy in glioblastoma: insights from multiparametric MRI and proteome profiling

J. Zhang, W. Zhang; Chongqing/CH

**RPS 916-7 09:16**

3D-F-FET or 3D-F-FCH PET/CT in the primary diagnosis of low-grade glioma: a pilot study

M. Hodolec1, A. M. Krap1, A. T. Golubic1, J. Nemir2, G. Mrak2, M. Zuvic2, D. Huic2; Olomouc/CZ, Zagreb/HR

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**RPS 916-8 09:22**

The use of contrast clearance analysis for the post-therapeutic follow-up of brain tumours and metastases treated with radiotherapy

S. Mahmoudi, A. Toutouei, T. Baroudi, R. Louelh; Tizi Ouzou/DZ

**RPS 916-9 09:28**

Early post-treatment assessment of multi-parametric MRI after stereotactic radiosurgery: can it predict the long-term response of brain metastases?

P. P. Arcuri, S. Rocca, A. Quattrone, G. Fodero, V. Aiello, C. Bertucci, E. Mazzet, D. Lagana; Catanzaro/IT

**RPS 916-10 09:34**

The efficacy prediction of enzatinib in brain metastases of crizotinib-resistant ALK-positive non-small-cell lung cancer (NSCLC) based on radiomics of brain MRI

D. H. Hou, S. J. Zhao, N. Wu; Beijing/CH

**RPS 916-11 09:40**

MRI radiomics: tumour marker at the pretreatment prediction of response to neoadjuvant chemotherapy of nasopharyngeal carcinoma

J. Sun1, S. Chen2, J. Ding2, F. Shan1, C. Huang2; Shaoguan/CH, Stony Brook/CH

**RPS 916-12 09:46**

Dual-energy 4D-CT of parathyroid adenomas not clearly localised by sestamibi scintigraphy and ultrasonography: a retrospective study

M. Wosietschlag1, O. Gimmi1, K. Johansson1, G. Wallin1, I. Garcia1, A. Spänegeus1; Linköping/SE, Västervik/SE, Örebro/SE

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**RPS 1010a 11:15**

Computer-assisted diagnosis of hip dysplasia and femoroacetabular impingement FAI using automatic reconstruction of MRI-based 3D models of the hip joint: a deep learning-based study


**RPS 1010a-1 11:21**

To test the ability of artificial intelligence to differentiate between benign and malignant soft tissue masses in ultrasonography

L. Perronne1, B. Wang2, R. S. Adler2; Rome/IT, Paris/FR, New York/US

**RPS 1010a-2 11:27**

Tumour margin infiltration in soft tissue sarcomas: prediction with 3T MR texture analysis

M. Kim1, W.-H. Jee1, Y. Lee1, J. H. Hong2, Y.-G. Chung2, W.-J. Bahk1; Seoul/SK

**RPS 1010a-3 11:33**

Paediatric radiographic detection of the acute distal tibial fracture

M. Kim1, W.-H. Jee1, Y. Lee1, J. H. Hong2, Y.-G. Chung2, W.-J. Bahk1; Seoul/SK

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**RPS 1010a-4 11:49**

Dixon or DWI: quantitative discrimination between malignant and acute osteoporotic vertebral fractures

R. Donners, M. M. Obmann, D. Boll, D. Harder; Basel/CH
Neuro

RPS 1011a Brain tumours

Moderators:
A. I. Holodny; New York, NY/US
P. Naval Baudín; L’Hospitalet de Llobregat/ES

RPS 1011a-K 11:15
Keynote lecture
C. Majós; Barcelona/ES

RPS 1011a-1 11:25
A longitudinal glioblastoma analysis of multi-parametric brain MRI using deep learning
M. Perkuhn1, R. Shahzad1, F. Thiele2, M. Stavrinou1, M. Schlamann3, A. Coget1, J. Deverdun1, E. Le Bars1, L. van Dokkum1, F. Molino2, C. Majós1

RPS 1011a-2 11:31
MRI characterisation of peri-operative brain haemodynamic alterations after awake surgery in diffuse low-grade gliomas
A. Coget1, J. Deverdun1, E. Le Bars1, L. van Dokkum1, F. Molino2, N. Menjot de Champfleur3, Montpellier/FR

RPS 1011a-3 11:37
MRI evaluation of targeted adoptive immunotherapy for gliomas using biotinylated adoptive T lymphocytes
H. Zhang1, S. Wu1, Qiongdao/CN, Shanghai/CN

RPS 1011a-4 11:43
An unsupervised learning method for IDH mutation prediction in glioblastomas based on cumulative probability distribution curves in vascular habitats
H. Wu1, W. Jiang2, X. Zhou1, W. Zhang1, H. Zhou3, H. Zhou4, Zhangqingping/CN, Hangzhou/CN, Shanghai/CN

RPS 1011a-5 11:49
A non-invasive in-vivo evaluation of IDH mutation status using 3T MR edited spectroscopy in brain glioma patients
D. Juskanic1, J. Polakova Mistinova1, M. Marjanská1, S. Holly1, L. Patrovič1, M. Halaj1, M. Sekeresova1, K. Koleják1, M. Kaveč1, Nitra/SK, Bratislava/SK, Minneapolis/US

Oncologic Imaging

RPS 1016 Breast and gynecologic advanced imaging and radiomics

Moderators:
R. Balaji; Chennai/IN
V. Romeo; Naples/IT

RPS 1016-K 11:15
Keynote lecture
V. Lehotska; Bratislava/SK

RPS 1016-1 11:25
Automated MR phenotyping improves the prediction of survival in primary invasive breast cancer
M. Dietzel1, R. Schulz-Wendtland1, P. Clauser2, M. Hammon2, S. Ellmann1, E. Wenkel3, R. Zoubi1, M. Uder4, P. A. T. Baltzer1; Erlangen/DE, Vienna/AT, Libbenbüren/DE

RPS 1016-2 11:31
The assessment of uterine cervical cancer with intravoxel incoherent motion imaging (IVIM) and diffusion kurtosis imaging (DKI) at 3T
Y. Ge1, Y. He1, C. Lin1, H. Zhou1, X. Wang1, H. Xue2, Z. Jin3; Beijing/IN

RPS 1016-3 11:37
The effects of 8th edition TNM AJCC staging in breast cancers detected with a screening programme
A. Pittaro1, G. Gennaro1, V. Pasqualino2, G. Romanucci2, S. A. Montemezzi1, F. Caumo1; Padua/IT, Verona, loc. Marzana1, Verona/IT
RPS 1016-4 11:43
The impact of 18F-FDG PET/CT on therapeutic management in breast cancer patients: a prospective evaluation of staging algorithms
J. Kirchner1, O. Martin1, L. Umutlu2, K. Herrmann2, L. M. Sawicki2, G. Antoch1, C. Buchbender1; Düsseldorf/DE, Essen/DE

RPS 1016-5 11:49
Pretreatment identification of non-responders to neoadjuvant chemotherapy in breast cancer patients
L. Vanovcanova1, I. Waczulikova, B. Vertakova-Krakovska, V. Lehotska; Bratislava/SK

RPS 1016-6 11:55
Relaxation-compensated CEST (chemical exchange saturation transfer) MRI at 7T aids breast cancer diagnostics

RPS 1016-7 12:01
The predictive role of body composition parameters (BCP) assessed by computed tomography in operable breast cancer treated with neoadjuvant chemotherapy: a retrospective observational cohort study
S. Draisci1, A. Pacchi, R. Bonacini, C. Omarini, P. Torricelli; Modena/IT

RPS 1016-8 12:07
Whole-body diffusion-weighted magnetic resonance imaging (WB-DWIBS/MRI) in peritoneal carcinomatosis from ovarian cancer: a diagnostic performance
F. J. Garcia Prado1, F. Ultera1, L. Reguera Berenguer1, R. Saiz Martinez1, E. Martin Illana1, J. Blazquez Sanchez1, T. Castellanos1, R. Marquez1, E. Grande Pulido1; Madrid/ES

RPS 1016-9 12:13
Using IVIM and DCE-MRI to monitor the focal perfusion status of uterine fibroids after high-intensity focused ultrasound
X. Lu1, Y. Ban1, H. Du1, X. Wang1; Urumqi/CN

RPS 1016-10 12:19
The application quantitative parameters of multiple models of multi-b value DWI-MRI in different pathological type, grade, and clinical stage of cervical cancer
J. Sun1, F. Shan1, C. Huang2; Shaoguan/CN, Stony Brook/US

RPS 1016-11 12:25
The role of quantitative MRI in assessing radiation response in uterine cervix cancer
V. Mahawar1, A. Jajodia1, A. K. Chaturvedi1, A. S. Rao1, S. Chauhan1; New Delhi/IN

11:15 - 12:30 Coffee & Talk 1

Interventional Radiology

RPS 1009a Lymphatic and venous interventions
Moderators:
H. R. Portugaller; Graz/AT
K. K. Pyra; Lublin/PL

RPS 1009a-1 11:15
Endovascular stenting of the main veins in urology
O. B. Zhukov; Moscow/RU

RPS 1009a-2 11:21
INTACT-lymph: the current results of an interventional approach to lymphatic leakage
W. Flatz1, T. Streitparth1, M. Fröhlich1, M. Seidensticker1, J. Ricke1, F. Streitparth1; Munich/DE, Mannheim/DE

RPS 1009a-3 11:27
25-years experience with transpedal lymphangiography in the management of postoperative therapy-refractory lymphatic leakage: final results with subgroup analyses
C. M. Sommer1, F. Pan1, T. D. D. Do1, G. M. Richter2, H. U. Kauczor1, T. Hackert1, M. Loos1; Heidelberg/DE, Stuttgart/DE

RPS 1009a-4 11:33
Early inferior vena cava filter retrieval strategy in trauma patients: the role of pre-retrieval contrast-enhanced CT

RPS 1009a-5 11:39
Endovascular percutaneous arteriovenous fistula creation: current evidence, technique, and single-centre experience
U. Salati1, J. W. Ryan; Dublin/IE

RPS 1009a-6 11:45
An alternative method for traditional surgical suturing in port catheter placement: glue
M. Asli; Istanbul/TR

RPS 1009a-7 11:51
Dynamic MR lymphangiography: a new technique for the assessment of the central lymphatic system in adults
S. Katsari1, D. K. Gordon1, P. P. Mortimer1, P. S. Mansour1, F. Howe1, L. A. Ratnam1; London/UK

RPS 1009a-8 11:57
Venous access devices and thrombotic complications incidence: implantation technique does matter
M. Cherkashin1, A. Nikolaev1, N. Berezina1, D. Puchkov1, N. Nikitina1, D. I. Kuplevatskaya1, K. Suprun1, P. Yablonsky1; St. Petersburg/RU

RPS 1009a-9 12:03
The efficacy of cutaneous anaesthesia in endovenous laser ablation of the great saphenous vein
K. Singh1, R. Malik1, A. Kumar1, R. S. Gupta1; Bhopal/IN

RPS 1009a-10 12:09
Assessment of the effectiveness of pelvic vein embolisation: a single-centre experience
C. Leonard1, D. C. O Neill1, M. P. Brassil1, M. J. Lee1; Dublin/IE

RPS 1009a-11 12:15
Hydrophilic guidewire usage in facilitating catheter advancement during the endovenous treatment of varicose veins
K. Hwang1, S. W. Park1, J. H. Hwang1, Y. W. Kwon1, J. Min1; Seoul/KR

RPS 1009a-12 12:21
Assessment and treatment of low-flow venous malformations
R. M. Moussa1, B. Hawthorn1, T. Cavenagh1, L. Mailli1, J.-Y. Chun1, L. A. Ratnam1, R. A. Morgan1; London/UK

11:15 - 12:30 Room N

Genitourinary

RPS 1007 Imaging in pregnancy and female tumours
Moderators:
G. Masselli; Rome/IT
T. Mokry; Heidelberg/DE

RPS 1007-1 11:15
ADNEX MR scoring system in the characterisation of ovarian lesions: retrospective external validation of malignancy prediction accuracy
A. Solopova1, U. Nosova1, V. Bychenko1; Moscow/RU

RPS 1007-2 11:21
Diagnostic value of individual MRI findings in abnormally invasive placenta
S. Serifbakhht1, P. Iranipour1, A. Taimouri1, E. Khabbazi1, Z. Gholami Bardejil1, F. Zarei1, P. Pishdad1, H. Vafaei1, B. Bijan1; Shiraz/IR, Sacramento, CA/US

RPS 1007-3 11:27
Comparative analysis of placental volume and vascularisation in normal and foetal growth restricted (FGR) pregnancies
S. Jain1, S. Hota1, R. C. Shukla1, M. Jain1, T. Singh1; Varanasi/IN

RPS 1007-4 11:33
The role of sonosalpingography (SSG) using normal saline in female subfertility: diagnostic or therapeutic?
P. Rastogi1, N. Jain1; Moradabad/IN
**RPS 1002a** 11:39
The comparative role of contrast-enhanced spectral mammography and contrast-enhanced MRI in preoperative diagnosis and management decision of sonomammography suspicious lesions
M. H. Gomaa, M. M. H. Hanafy, R. M. Kamal, S. A. Mansour, M. Hassan, G. Mohamed; Cairo/EG

**RPS 1002a-5** 11:39
The accuracy of the characterisation of adnexal masses with non-contrast pelvic MRI: an 11-year experience from a tertiary referral centre in the United Kingdom
H. Sahin1, C. Panico2, H. C. Addley1, S. Ursprung1, J. Smith1, S. Freeman1, V. Simeon1, P. Chiodini2, E. Sala1; Cambridge/UK, 1Cambridge/UK, IT

**RPS 1002a-6** 11:45
Contrast-enhanced digital mammography: what is the added value in the diagnostic work-up of microcalcifications?
A. Franconeri1, D. de Benedetto2, C. Bellinzini2, M. C. Masciotra2, R. Trapasso1, G. Bicchiera1, F. Di Naro1, J. Nori2, V. Miele2; Pavia/IT, 1Florence/IT, 2Campobasso/IT

**RPS 1002a-7** 11:51
Evaluation of contrast-enhanced digital mammography (CEDM) in the preoperative staging of breast cancer: large-scale single-centre experience
G. Bicchiera1, P. Tonelli, D. de Benedetto, F. Di Naro, D. Crone, V. Miele, J. Nori, Florence/IT

**RPS 1002a-8** 11:57
Preoperative evaluation of breast cancer: diagnostic performance of contrast-enhanced digital mammography compared to magnetic resonance imagining
C. Depretti1, A. Liguori1, A. Borelli1, G. Boffelli2, C. G. Monaco1, F. Cartia1, C. Ferranti1, G. Scaparotta1; Milan/IT, 1Pavia/IT

**RPS 1002a-9** 12:03
Contrast-enhanced digital mammography (CEDM) for monitoring the response of breast cancers to neoadjuvant chemotheraphy: a comparison with MRI
D. Bernardi1, A. Acquaviva1, M. Valentini1, V. Sabatino1, M. Pellegrini1, C. Fantò2; Milan/IT, 1Naples/IT, 2Trent/IT

**RPS 1002a-10** 12:09
Contrast-enhanced spectral mammography with a compact synchrotron source
L. Hecki1, M. Dierolf1, T. Sellerer1, K. Mechlem1, B. Günter1, S. Metz2, D. Pfeiffer1, K. Kröninger1, J. Herzen1; Garching/DE, 1Munich/DE, 2Dortmund/DE

**RPS 1002a-11** 12:15
Dedicated spiral breast CT with a single-photon counting detector: initial results of the first 300 women
N. Berger, M. Marcon, T. Frauenfelder, A. Boss; Zurich/CH

**RPS 1002a-12** 12:21
Optimisation of photon-counting breast CT for spectral single-scan contrast-enhanced imaging: a phantom study
V. Ruth, D. Kolditz, C. Steiding, W. A. A. Kalender; Erlangen/DE

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**Breast**

**RPS 1007-4** 11:39
The accuracy of the characterisation of adnexal masses with non-contrast pelvic MRI: an 11-year experience from a tertiary referral centre in the United Kingdom
H. Sahin1, C. Panico2, H. C. Addley1, S. Ursprung1, J. Smith1, S. Freeman1, V. Simeon1, P. Chiodini2, E. Sala1; Cambridge/UK, 1Cambridge/UK, IT

**RPS 1007-6** 11:45
Integration of proteomics with CT-based qualitative and texture features in high-grade serous ovarian cancer patients: an exploratory analysis
L. Beer1, H. Sahin1, K. M. Darcy1, J. B. Freyman1, L. Maxwell1, T. P. Conrad1, E. Huang1, E. Sala1; Cambridge/UK, 1Bethesda/US, 2Rockville/US

**RPS 1007-7** 11:51
Pre-treatment MRI radiomics-based response prediction model in locally advanced cervical cancer
L. Russo1, B. Gui, S. Persiani, M. Miccò, L. Boldrini, D. Cusumano, R. Autorino, G. Ferrandina, R. Manfredi; Rome/IT

**RPS 1007-8** 11:57
The variance of quantitative kurtosis imaging using ultra-high b-value DWI over the menstrual cycle: the influence of oral contraceptives
T. Mokry1, A. Mlynarska-Bujny1, T. Füdenpries1, O. H.-P. Schlemmer1, S. Bickelhaupt1, H. Preibsch; Tübingen/DE

**RPS 1007-9** 12:03
Multiparametric MRI-based radiomics analysis for preoperative assessment of uterine cervical cancer aggressiveness
Y. Liu, Y. Zhang1, Z. Ye; Tianjin/CN

**RPS 1007-10** 12:09
Diffusion-weighted imaging of cervical cancer: feasibility of ultra-high b value at 3T
Y. Qi, Y. He, C. Lin, X. Wang, H. Zhou, H. Xue, Z. Y. Jin; Beijing/CN

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**RPS 1002a** 11:15 - 12:30
**Room O**

**RPS 1002a** Contrast-enhanced x-ray imaging of the breast
M. M. H. Hanafy; Cairo/EG

**RPS 1002a** 11:15
Contrast-enhanced mammography (CEM): a systematic review and meta-analysis of diagnostic performance
A. Cozzi1, C. B. Monti2, C. G. Monaco1, M. Zanard1, S. Schiaffino2, R. M. Trimboli1, A. Di Leo1, L. A. Carbonaro1, F. Sardanelli1; Milan/IT, 1San Donato Milanese/IT

**RPS 1002a-11** 11:15
Impact of contrast-enhanced mammography as a work-up technique for women recalled at breast cancer screening: preliminary results
C. G. Monaco1, L. A. Carbonaro1, S. Schiaffino2, A. Cozzi1, D. Spinelli1, R. M. Trimboli1, G. Di Leo1, F. Sardanelli1; Milan/IT, 1San Donato Milanese/IT

**RPS 1002a-12** 11:21
Diagnostic value of the delayed image in contrast-enhanced spectral mammography for the assessment of malignancy in BI-RADS 4 mammographic findings
A. Ainalakulova1, Z. J. Zhoidybay1, D. Kaidarova, N. Inozemtseva; Almaty/KZ

**RPS 1002a-13** 11:32
Distant efficacy of contrast-enhanced digital mammography (CEDM) in breast cancer detection among women with dense breast in comparison to digital mammography and ultrasound
R. Sudhir1, V. Kopputa, K. Sannapareddy; Hyderabad/IN

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**Physics in Medical Imaging**

**RPS 1013** Advances in MRI
M. M. H. Hanafy; Cairo/EG

**RPS 1013-1** 11:15
Keynote lecture
D. J. Lurie; Aberdeen/UK

**RPS 1013-1** 11:25
Motion correction for super resolution 2D multislice MRI: application to prostate
S. Riederer, E. Borisch, R. Grimm, S. Kargar, A. Kawashima; Rochester, MN/US

**RPS 1013-2** 11:31
Dynamic contrast-enhanced magnetic resonance imaging during free breathing for hepatic lesions: clinical applicable and limitations
M. C. Langenbach1, L. Basten2, D. Mainz1, T. J. Vogl1, T. Gruber-Rouh1, J.-E. Scholtz2, B. Kaltchenbach1; Cologne/DE, 1Frankfurt am Main/DE
**RPS 1013-3** 11:37
Radiomics and 3T DCE-MRI in breast cancer: is it possible to predict the response to neo-adjuvant chemotherapy?
C. Cavedon, M. V. Bisigighin, G. Benetti, C. Zerbato, L. Camera, S. A. Montemezzi; Verona/IT

**RPS 1013-4** 11:43
A correction of MR field non-uniformity dedicated to breast imaging
F. Khalidi, P. Akil, D. Sebag Sfez, C. Malhaire; F. Frouin; Orsay/FR, Paris/FR

**RPS 1013-5** 11:49
Investigation of radiomic features repeatability and reproducibility in MRI with a dedicated pelvis phantom
L. Bianchini, J. Santinha, N. Loucao, F. Botta, D. A. Origgio; M. Cremonesi, N. Papanikolaou; L. A. Saslaw斯基fari; Milan/IT, Lisbon/PT

**RPS 1013-6** 11:55
Transchelation of gadolinium ions from GBCA to glycosaminoglycans: linear vs macrocyclic GBCA
P. Schuenke, P. Werner, M. Taupitz, L. Schröder; Berlin/DE

**RPS 1013-7** 12:01
Diffusion tensor distribution imaging: a novel framework for quantifying microscopic tissue heterogeneity in brain tumours
J. P. de Almeida Martins, S. Lasic, Y. Zheng, S. Li, F. Wu; Wang, S. Sun; H. Xu, T. Topgaard; Lund/SE, Houston, TX/US, Shanghai/CH, Wuhan/CN

**RPS 1013-8** 12:07
Diffusion-tensor imaging, fibre tracking: differences between probabilistic and deterministic approaches for neurosurgical planning
L. Bert, D. Lizio, L. Gennari, M. Rizzi, C. Regina Gladin, E. Marcati, L. Cenzato, G. Lo Russo, A. Torresin; Milan/IT

**RPS 1013-9** 12:13
Orientation-resolved means of diffusivities and transverse relaxation times in heterogeneous brain tissue
A. Reybouct, J. de Almeida Martins, C. Tax, F. Szczepankiewicz, D. Jones, T. Topgaard; Lund/SE, Cardiff/UK

**RPS 1013-10** 12:19
Natural abundance C13 magnetic resonance spectroscopy quantification of mono-and polysaturated fatty acids: influence of diet

**RPS 1013-11** 12:25
Multimodal multi-parametric phantom of the fatty liver disease
O. Dnyk, O. Omelchenko, O. Solodovnik, N. Marunchi; Kiev/UA

**RPS 1013-12** 12:30
Coffee & Talk 2

**Paediatric**

**RPS 1012a**

**RPS 1012a-1** 11:15
Bone marrow signal on whole-body MRI in healthy asymptomatic children: a prospective observational study establishing novel reference standards
E. V. Brandis, P. K. K. Zadig, K. Rosendahl, D. Avenarius, B. Nguyen, L.-S. O. Müller; Oslo/NO, Tromsø/NO, Bergen/NO

**RPS 1012a-2** 11:21
Whole-body MRI of bone manifestations in patients with Gaucher disease type 1 after long-term treatment with enzyme replacement therapy
A. Lillert, K. Laudemann, E. Mengel, C. Hoffmann, M. Brixius-Huth, J. Hennermann, C. Düber, G. Staatz; Mainz/DE

**RPS 1012a-3** 11:27
Radiological investigation of suspected physical abuse in children
S. Drew; K. Stafford; Cambridge/UK, Camberley/UK

**RPS 1012a-4** 11:33
MRI patterns of muscle involvement in type 2 and 3 cohorts of patients with spinal muscular atrophy
L. Cristiano, T. Verdolotti, C. Brogna, T. Tartaglione, A. Pichiecchio, C. Cinnante, C. Colosimo, E. M. Mercuri; Rome/IT, Pavia/IT, Milan/IT

**RPS 1012a-5** 11:39
Diagnostic performance of morphometric vertebral fracture analysis (MXA) in children using a 33-point software program
F. F. Alqahtani, N. J. Crabtree, P. Bromley, T. Cootes, B. Broadley, I. Lang, A. C. Offiah; Sheffield/UK, Birmingham/UK, Manchester/UK

**RPS 1012a-6** 11:45
Magnetically-controlled growing rods in early-onset scoliosis: the clinical utility of ultrasound in monitoring distraction
F. Mecina, F. Pucciarelli, L. Labianca, V. Giuliani, G. Mottoni, E. Rosati, D. Caruso, A. Laghi, G. Argento; Rome/IT

**RPS 1012a-7** 11:51
Radiological and clinical prognostic factors in children with atlantoaxial rotatory subluxation/fixation
L. Lotrecchiano, S. Guerrini, M. Molinari, P. Zantaronello, A. Giugliano, L. Ceccarelli, G. Vara, G. Facchini, P. Spinnato; Bologna/IT, San Gennaro Vesuviano/IT

**RPS 1012a-8** 11:57
Morphometric assessment of the face with 3D “black bone” magnetic resonance imaging in patients with juvenile idiopathic arthritis
M. J. Kupka, J. Aguet, M. W. Wagner, C. J. J. Kellenberger; Zurich/CH

**RPS 1012a-9** 12:03
The presence of globally-decreased perfusion on post-reduction MRI does not reliably predict proximal femoral growth disturbance at midterm follow-up in developmental dysplasia of the hip
F. Schmaranzer, M. Ferrer, P. Miller, S. Bixby, Y.-J. Kim; Novais; Boston/MA, US

**RPS 1012a-10** 12:09
Which risk factors predict hip instability or developmental dysplasia of the hip in newborns?
C. Zachichi, G. Como, I. Mauro, L. Cattarossi, R. Girometti, C. Zuanini; Udine/IT

**RPS 1012a-11** 12:15
Single fast high-resolution 3D T1 VIBE FS MR sequence versus CT in the evaluation of tarsal coalition in children and adolescents: a reliable radiation-free alternative?
V. Caturani, A. Bartoloni, A. Magistrelli, D. Barbuti, P. Toma, A. Bozzao, M. Cirillo; Rome/IT

**RPS 1012a-12** 12:21
The triangular fibrocartilage complex on high-resolution 3T magnetic resonance imaging in children: what is normal?
A.-S. van der Post, S. Jens, F. Smithuis, M. Odejein, M. Maas; Amsterdam/NL
Emergency Imaging

RPS 1017
Pulmonary embolism and other

Moderators:
N.N.
Z. Serafin; Bydgoszcz/PL

RPS 1017-K
Keynote lecture
G. Aviram; Tel Aviv/IL

11:15

RPS 1017-1
Shifting from double-rule-out towards whole body check-up: diagnostic yield of CT in patients with suspected aortic dissection
J. Vosshenrich, G. Sommer; Basel/CH

11:16

RPS 1017-2
Diagnostic performance of different low-dose levels for the detection of pulmonary embolism in computed tomography

11:21

RPS 1017-3
What about incidental findings on emergency CT scanners?
L. P. V. Ribeiro, A. M. Baltazar, K. B. Azevedo, A. F. Abrantes, S. Rodrigues, O. Lesyk; Parchal/PT, São Brás de Alportel/PT

11:27

RPS 1017-4
CT-angiography as the diagnostic tool to determine the instability of the arterial wall in abdominal aortic aneurysms
D. Tutova, R. Muslimov, L. Kokov; Moscow/ RU

11:33

RPS 1017-5
Prognostic value of CT pulmonary angiography parameters in acute pulmonary embolism.
D. Cozzi, C. Moroni, E. Cavigli, A. Bindi, V. Miele, C. Caviglioli, P. Nazerian, S. Vanni, M. Bartolucci; Florence/IT

11:39

RPS 1017-6
Present limitations of Artificial intelligence in the emergency setting: performance study of a commercial, computer-aided detection algorithm for pulmonary embolism
K. Mueler-Pelzer, G. Negrao de Figueiredo; C. G. Trumm; Freiburg/DE, Munich/DE

11:45

RPS 1017-7
The role of a computer-assisted detection algorithm for the diagnosis of peripheral pulmonary embolism

11:51

RPS 1017-8
Dual-energy CT for wrist fracture patients with negative radiographs: a prospective diagnostic test accuracy study
C. F. Müller, K. K. Gosvig; H. Børjesen, J. S. Gade, M. W. Brejnebol, A. Rodell; M. C. Nemery, M. Boesen; Herlev/DK, Ballerup/DK, Frederiksberg/DK

11:57

RPS 1017-9
Pulmonary embolism: epidemiology, use of clinical probability scores, and correlation between clinical, radiological and analytical variables. A retrospective, single-centre study
A. J. Láinez Ramos-Bossini; M. D. C. Pérez García, F. Garrido Sanz, S. Suárez Moreno, R. Gálvez López, M. Rivera Izquierdo; Granada/ES

12:03

RPS 1017-10
Efficiency and impact of CT in ICU patients with unknown inflammatory focus
R. Marti, J. A. Luetkens; A. Faron; D. K. Thomas, D. Kuetting; Dresden/DE, Bonn/DE

12:09

Radiographers

RPS 1014a
Radiographer role and professional challenges

Moderators:
G. N. Paulo; Coimbra/PT
M. Szczero-Trojanowska; Lublin/PL

RPS 1014a-1
Occupational burnout among radiographers: findings from a national survey
L. P. V. Ribeiro, A. M. Baltazar, K. B. Azevedo; Parchal/PT, São Brás de Alportel/PT

11:15

RPS 1014a-2
The radiographer's role in Italy: a national survey on the development and growth of radiographers' skills
M. Giusti, S. Durante, P. Cornacchione, R. Ricci, M. Zanardo, N. Persiani; Florence/IT, Bologna/IT, Rome/IT, Milan/IT

11:21

RPS 1014a-3
Advanced and consultant AHP practice: a vision for the future
N. Barlow, R. Milner; Rotherham/UK

11:27

RPS 1014a-4
Patterns of movement of radiographers and professional qualifications recognition across the European Union
J. G. Couto, S. L. Mc Fadden, P. Bezzina; C. Hughes; Msida/MT, Newtownabbey/UK

11:33

RPS 1014a-5
Awareness of medical radiation exposure among patients

11:39

RPS 1014a-6
An investigation of Irish radiographers' attitudes and opinions towards taking on the role of referrers
K. Davies; Prosperous; Co. Kildare/IE

11:45

RPS 1014a-7
A national course for radiographers/radiographer students as an RPO

11:51

RPS 1014a-8
Patient-centred care in diagnostic radiography: perceptions of service users, service deliverers, students, and educators
M. Hardy, E. Hyde; Bradford/UK, Derby/UK

11:57

RPS 1014a-9
Compassionate patient care in diagnostic medical imaging
J. Bleiker, K. Knappe, S. Morgan-Timmer, S. J. Hopkins; Exeter/UK

12:03

RPS 1014a-10
The EFRS Research Hub: promoting research in radiography
L. A. Rainford, R. J. Toomey; Dublin/IE

12:09

RPS 1014a-11
Ethical evidence in radiology research
A. M. M. Quadrado, J. Figueiredo, A. Santos; Coimbra/PT

12:15

RPS 1014a-12
Postgraduate education in radiography: what is the bigger picture?
J. M. Grehan, M. Ryan, J. Last, L. A. Rainford; Dublin/IE

12:21
Paediatric

**RPS 1012b**

**Advanced imaging in paediatric cancers**

Moderators:
M. C. Calcagno; Catania/IT
A. S. Littooj; Leiden/NL

**RPS 1012b-K 11:15**

**Keynote lecture**

P. D. Humphries; London/UK

**RPS 1012b-1 11:25**

The effect of time-of-flight on reducing the injected [18F]-FDG activity for whole-body PET/CT imaging of paediatric oncology patients

H. Kertész1, T. Beyer1, T. Traub-Weidinger1, J. Cal-Gonzalez1, M. Hacker1, for diagnosis in paediatric oncology

O. Akin2, N. Graf4, G. Staatz3

B. Hero3, B. Martínez de las Heras1, G. Marti-Besa1, M. Aznar4, E. Neri5

T. Kitsos2, K. London2, P. Kench2

A. Ilivitzki, B. Sokolovski, A. Ben Barak, S. Postovski, M. Ben Aarush

Haifa/IL

**RPS 1012b-2 11:31**

Oncologic imaging and H2020: the PRIMAGE project helping paediatric ultra-low-dose chest CT: a performance analysis

L. Marti-Bonmati1, A. Alberich-Bayarri1, R. Ladenstein2, L. Cerda Alberich1, B. Hero3, B. Martínez de las Heras1, G. Marti-Besa1, M. Aznar4, E. Neri5

1Valencia/ES, 2Vienna/AT, 3Cologne/DE, 4Madrid/ES, 5Pisa/IT

**RPS 1012b-3 11:37**

Computer-aided detection (CAD) of pulmonary nodules in paediatric ultra-low-dose chest CT: a performance analysis

P. J. Kuhl, H. Huffage, T. A. Bley, S. Veldhoen; Würzburg/DE

**RPS 1012b-5 11:43**

The value of diffusion-weighted MRI in the response assessment of nephroblastoma

A. M. Hötker1, Y. Maziheri1, A. Lollert1, J. Zheng1, S. Müller1, J.-P. Schenk1, O. Akin1, N. Graf1, G. Staatz1; Zurich/CH, New York, NY/US, Mainz/DE, Homburg (Saar)/DE, Heidelberg/DE

**RPS 1012b-6 11:49**

Radiomic features as a marker of metastatic spread in Wilms' tumours

G. Fischer1, L. Baffoni2, T. Toffolutti1, M. Zuliani1, B. Giorgi1, E. Quaia1, C. Giraudo1; Padua/IT, Montebelluna/IT

**RPS 1012b-7 11:55**

The feasibility and value of quantitative semi-automated diffusion-weighted imaging volumetry of neuroblastic tumours

S. Gassenmaier1, I. Tsiflikas1, J. Fuchs1, R. Grimm1, C. Urla1, M. Ebing1, S. W. Warmann1, J. F. Schäfer1; Tubingen/DE, Erlangen/DE

**RPS 1012b-9 12:01**

Dynamic contrast-enhanced perfusion MRI and diffusion-weighted imaging as an imaging biomarker for paediatric cancer

L. Cerda Alberich1, G. Marti-Besa1, A. Alberich-Bayarri1, L. Marti-Bonmati1

Valencia/ES

**RPS 1012b-10 12:07**

The differentiation of low- and high-grade paediatric brain tumours by using intravoxel incoherent motion imaging and diffusion kurtosis imaging

D. She; Fuzhou/CN

**RPS 1012b-11 12:13**

Post-transplant thymus restoration is a really good predictor of transplant outcomes

M. Cuccaro1, F. F. Zenaro1, R. Simeone1, F. M. Murru1, N. Maximova; Trieste/IT

**RPS 1012b-12 12:19**

Ultrasound-guided core biopsy with smear cytology: the fastest route for diagnosis in paediatric oncology

A. Ilivtzki1, B. Sokolovski1, A. Ben Barak1, S. Postovski1, M. Ben Aarush1; Haifa/IL

**Radiographers**

**RPS 1014b**

**An array of applications: ultrasound and dual-energy x-ray absorptiometry**

Moderators:
T. Herlihy; Dublin/IE
N.N.

**RPS 1014b-1 11:15**

Ultrasound practice in Europe: an EFRS survey


**RPS 1014b-2 11:21**

Eye assessment by B-mode ultrasound and elastography

R. A. M. Santos1, A. R. R. Garcês; Coimbra/PT

**RPS 1014b-3 11:27**

Association between risk factors and testicular microlithiasis

M. R. V. Pedersen; Vejle/DK

**RPS 1014b-4 11:33**

An ultrasound study to evaluate the effects of pulmonary rehabilitation in muscle mass in people with chronic obstructive pulmonary disease

P. M. Martins1, A. A. André2, S. de Francesco2, P. Rebelo2; Coimbra/PT

L. Noronha1, A. Marques1; Aveiro/PT, Coimbra/PT, Canoas/BR

**RPS 1014b-5 11:39**

Skin layer evaluation by ultrasound

R. A. M. Santos; V. Fonseca; Coimbra/PT

**RPS 1014b-6 11:45**

Variability in liver transient elastography and acoustic radiation force impulse (ARFI) imaging-based elastography measures in a healthy paediatric cohort

A. McGee, M. Rowland, B. Bourke, L. A. Rainford; Dublin/IE

**RPS 1014b-7 11:51**

The impact of ageing on muscle morphology: an ultrasound study

R. A. M. Santos; V. Fonseca; Coimbra/PT

**RPS 1014b-8 11:57**

Ultrasound evaluation of muscular mass and strength in handball players and sedentary age-matched controls

P. M. Martins1, S. de Francesco1, A. Baptista1, I. Silva1, L. Noronha2, A. A. André3; Aveiro/PT, Canoas/BR, Coimbra/PT

**RPS 1014b-9 12:03**

The role of physical activity on hamstring muscle morphology: a pilot ultrasound study

R. A. M. Santos1, A. C. Tavares; Coimbra/PT

**RPS 1014b-10 12:09**

Dual-energy x-ray absorptiometry patient and staff radiation exposure: an experimental analysis

M. S. D. Nascimento1, A. R. Clemente1, Ô. M. D. C. Tavares1, J. Santos1; Vejle/DK, Coimbra/PT

**RPS 1014b-11 12:15**

Total and regional bone density and body mass in male adolescents: comparison between soccer players and swimmers

J. Pinheiro1, L. P. Ribeiro1, M. Coelho-E-Silva1; Sao Bras/PT, Sao/PT, Coimbra/PT

**RPS 1014b-12 12:21**

Total and regional bone density and body mass: comparison between normal and overweight male adolescents

J. Pinheiro1, L. P. Ribeiro1, M. Coelho-E-Silva1; Sao Bras/PT, Sao/PT, Coimbra/PT

*Research Presentation Sessions / My Thesis in 3 Minutes / Clinical Trials in Radiology*
Head and Neck

**RPS 1008**

Temporal bone and auditory pathway

Moderators:
- P. Goloffit; Szczecin/PL
- N.N.

RPS 1008-1

11:15

Reliability and clinical correlation of different grading scales in the MRI evaluation of endolymphatic hydrops

- P. Malmierca Ordoqui1, A. Paternain Nuin1, A. Ezponda Casajus1, M. Calvo Iminzadu1, A. C. Igual Rouilleaut1, V. Suárez Vega1, R. García de Eulate1, N. Perez1, P. Dominguez Echavarri1; Pamplona/ES, Madrid/ES

RPS 1008-2

11:21

Early radiologic manifestations of endolymphatic sac tumours in von Hippel-Lindau disease

- J. F. Molto Garcia1, H. J. Kim2, P. Chittiboina2, R. Lonser2, J. Butman2, R. Garcia de Eulate1, N. Perez1, P. Dominguez Echavarri1; Pamplona/ES, Madrid/ES

RPS 1008-3

11:27

Localisation evaluation of middle ear cholesteatoma with fusion of turbo spin-echo diffusion-weighted imaging and high-resolution computed tomography

- X. Fan, Z. Liu; Shenyang/CN

RPS 1008-4

11:33

Evaluation of necrotising external otitis on CT and MR: assessment of spreading pattern

- L. van der Meer1, C. Mitea1, J. Waterval1, D. Kunst2, A. Postma2; Maastricht/NL, Nijmegen/NL

RPS 1008-5

11:39

High-definition MRI for the evaluation of lymphatic disorders

- M. A. Esteves Da Cunha1, T. Gillanders1, M. Perez Akly2, L. van der Meer1, C. Mitea1, J. Waterval1, D. Kunst2, A. Postma2; Maastricht/NL, Nijmegen/NL

RPS 1008-6

11:45

Superior vestibular neuritis: improved detection using FLAIR sequence with delayed enhancement (1 hour)


RPS 1008-7

11:51

The length of the organ of Corti in humankind: a meta-analysis study

- B. Atalay, M. B. Eser, M. T. Kalcıoğlu; Istanbul/TR

RPS 1008-8

11:57

Role of non-echo-planar diffusion-weighted images in the identification of recurrent cholesteatoma of the temporal bone

- A. Guarnera, A. Romano, E. Covelli, G. Butera, M. Barbara, A. Bozzao; Rome/IT

RPS 1008-9

12:03

Presence of vascular loop in patients with audio-vestibular symptoms: is it a significant finding? Evaluation with a 3-Tesla MRI 3D constructive interference steady state (CISS) sequence

- M. A. Z. Teleg; N. Almansour; Alexandria/EG, Alalsha/SA

RPS 1008-10

12:09

A critical appraisal of the quality of vertigo practice guidelines using the AGREE II tool: a EuroAIM initiative

- M. M. Doniselli1, M. Zanardo1, A. Costa1, V. Cuccarini1, L. M. M. Sconfinzai1, M. Mazón Mompardier1, A. Rovira Cañellas1, E. Arana Fernandez de Moya1; Milan/IT, Valencia/ES, Barcelona/ES

RPS 1008-12

12:15

Characteristics of small-world connectivity and ninety cortical nodes in bilateral sensorineural hearing loss: a study using graph theoretical analysis

- X.-M. Xu, T.-Y. Tang, G.-J. Teng; Nanjing/CN

Abdominal Viscera

**RPS 1001a**

Advances in MRI techniques

Moderators:
- N. Papanikolaou; Lisbon/PT
- F. Regini; Firenze/IT

RPS 1001a-1

11:15

Influence of injection rate in determining the development of artifact during acquisition of dynamic arterial phase in Gd-EOB-DTPA MRI studies

- C. Maino1, D. Ippolito2, A. Pecorelli2, L. Riva1, C. R. G. L. Talei Franzesi1, S. Sironi1; Milan/IT, Monza/IT, Bergamo/IT

RPS 1001a-2

11:31

Intrapatient and interobserver image quality analysis in liver MRI study with Gd-EOB-DTPA using two different multimodal phase techniques

- F. Castagnoli1, V. Ruggeri1, M. Bertuletti1, M. Gatti1, R. Incchingolo2, R. Palletti2, L. Grazioli; Brescia/IT, Turin/IT, Matera/IT

RPS 1001a-3

11:37

Gadoxetate disodium-enhanced MRI: assessment of arterial phase artifacts and hepatobiliary uptake in a large single centre series

- N. Viatti Violi1, P. Agriradii1, A. Rosen1, M. Cherny1, A. Weiss1, G. Hernandez Meza2, J. S. Babb3, S. Khira1, B. Taouli1; Lausanne/CH, New York/NY, US

RPS 1001a-4

11:43

Relative enhancement of the liver during hepatobiliary phase after Gd-BOPA administration: correlation with bilirubin levels and renal function

- R. Valletta1, M. Bonatti2, F. Lombardo2, G. Zamboni2, G. Schifferle2; Verona/IT, Bozen/IT

RPS 1001a-5

11:49

Visualising liver function by T1 relaxometry based quantification of hepatic concentration of a gadolinium-based liver specific contrast agent

- C. Brett, T. Heye, D. J. Winkel, D. Boll; Basel/CH

RPS 1001a-6

11:55

Mapping of the liver function: impact of MR field strength on T1 reduction rate

- D. Catucci, V. C. Obmann1, A. Berzigotti1, J. Hrycyk, W. Kajdi, C. Gräni, L. Ebner, A. Christe, A. T. Huber; Berne/CH

RPS 1001a-7

12:01

Precision analysis for dual R2 MRI relaxometry in assessment of liver disease

- H. Leao Filho1, W. Chua-Ansor2, P. Clark1; Sao Paulo/BR, Cambridge/AU, Perth/AU

RPS 1001a-8

12:07

A comparative study of diagnostic value of DWI MRI between mono-exponential, bi-exponential, and non-Gaussian kurtosis models in pancreatic ductal adenocarcinoma

- S. Peng, Shichuan/CN

RPS 1001a-9

12:13

MRI with diffusion-weighted imaging in the evaluation of abdominal Castleman's disease

- W. Mingliang, Z. Mengsu; Shanghai/CN

RPS 1001a-10

12:19

T1-weighted fat-suppressed sequence: most specific way for time and cost-effective diagnosis of endometriosis with MRI

- A. Dumbadze; Tbilisi/GE

INVEST IN THE YOUTH

SPEAKERSUPPORTED BY

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Impaired enhancement of portal vein on portal venous phase with Gd-EOB-DTPA compared to Gd-BOPTA in cirrhosis
F. Vernuccio, V. Greco, C. Gozzo, R. Cannella, M. Midiri, G. Brancatelli; Palermo/IT
11:15 - 12:30 Darwin (Room D2)

**Interventional Radiology**

**RPS 1009b**

**Spine and bone**

Moderators:
J. T. C. Baptista; Lisboa/PT
P. Popovic; Ljubljana/SI

**RPS 1009b-1**
Epidural pulsed radiofrequency (ERF) with access via sacral hiatus: therapeutic indications
F. Castelli, C. Di Lorenzo, A. M. Ragusa, B.Varsallona, A. Scavone, G. Scavone, M. V. V. Raciti, P. Aliffi, G. Galvano; Verona/IT, Catania/IT,鸾顺/via/IT
11:15

**RPS 1009b-2**
CT-guided screw fixation by interventional radiologists in traumatic injuries of the pelvic ring: screw accuracy placement and clinical outcome
11:21

**RPS 1009b-3**
Percutaneous ozone nucleolysis for low back pain: any issues for spine biomechanics? 6 years of MRI imaging follow-up
E. Tommasino, P. Palumbo, F. Bruno, M. Varrassi, M. V. M. Micelli, F. Arrigoni, A. Splendiani, C. Masiocchi, L’Aquila/IT
11:27

**RPS 1009b-4**
Systematic evaluation of low-dose MDCT for planning purposes of lumbosacral periradicular infiltrations
N. Sollmann, K. Mei, S. Schön, I. Riederer, F. K. Kopp, C. Zimmer, J. S. Kirschke, P. B. Noel, T. Baum; Munich/DE
11:33

**RPS 1009b-5**
The predictive role of the lumbar disc FA (fractional anisotropy) map in diffusion tensor imaging (DTI) to select patients with low back pain who may benefit from intradiscal oxygen-ozone injections
E. Tommasino; M. Varrassi, M. Perri, A. Splendiani, F. Bruno, C. Masciocchi, A. Barrie, E. Di Cesare, L’Aquila/IT; San Giovanni Rotondo/IT
11:39

**RPS 1009b-6**
The association between osteoarthritis features on MRI and the clinical outcome of transcatheter arterial embolisation therapy for knee osteoarthritis
T. A. van Zadelhoff, Y. Okuno, S. M. A. Bierema-Zeinstra, A. Moelker, E. Oei; Amsterdam/NL, Tokyo/JP, Rotterdam/NL, Bergschenhoek/NL
11:45

**RPS 1009b-7**
Symptomatic low-grade lumbar isthmic lysis: trans-isthmic pars interarticularis screwing under CT and fluoroscopic guidance
11:51

**RPS 1009b-8**
Percutaneous treatment of vertebral body fractures in patients with vertebral metastases by using expandable SpineJack™ intravertebral implants: the initial experience of 21 consecutive patients
C. Pusceddu, N. Balilcu, L. Melis; Cagliari/IT
11:57
RPS 1009b-9 12:03
A 7-year experience of magnetic resonance-guided focused ultrasound surgery (MRFUS) ablation of bone lesions: results from an MSK interventional centre
F. Arrigoni, C. de Cataldo, P. Palumbo, M. Ruschioni, F. Formiconi, L. Zugaro, A. Barile, C. Masciocchi; L'Aquila/IT

RPS 1009b-10 12:09
Intraperitoneal cleft in percutaneous vertebroplasty: what else?
F. Torre1, L. J. Pavan1, A. Prestaf1, H. Vasseur1, C. Ibba1, N. Stacoffe2, A. Kasther1, P. Fofi1, N. Amorreti1; Nice/FR, Lyons/FR, Grenoble/FR

RPS 1009b-11 12:15
Complications of image-guided thermal ablation of bone metastasis: a single-centre experience
G. Bianchi, F. Arrigoni, A. Izzo, C. de Cataldo, P. Palumbo, M. V. M. Micelli, L. Zugaro, A. Barile, C. Masciocchi; L'Aquila/IT

RPS 1009b-12 12:21
Ablation, vertebroplasty, and radiotherapy in treating symptomatic spinal metastases: can a combined treatment ensure stability and disease control in a medium-long term follow-up?
C. de Cataldo, A. Izzo, G. Bianchi, M. Ruschioni, F. Formiconi, F. Arrigoni, L. Zugaro, A. Barile, C. Masciocchi; L'Aquila/IT

RPS 1001b 11:15 - 12:30 Room G

GI Tract

RPS 1001b-Colon cancer: techniques for detection and staging
Moderators:
L. Lambert; Prague/CZ
A. Drolsum; Oslo/NO

RPS 1001b-K 11:15
Keynote Lecture
M. J. Gollub; New York, NY/US

RPS 1001b-1 11:25
Investigating the use of CT colonographs in patients too frail for colonoscopy and their management outcome
S. C. Chinn1, G. Duncan2; Dundee/UK, Perth/UK

RPS 1001b-2 11:31
The evaluation of the redundant sigmoid colon on computed tomography images

RPS 1001b-3 11:37
Dedicated MR imaging for staging of peritoneal metastases in colorectal cancer patients considered for CRS-HIPEC: the DISCO randomised multicentre trial

RPS 1001b-4 11:43
Clinical impact of dedicated whole-body MR imaging in patients with advanced colorectal cancer

RPS 1001b-5 11:49
Low-volume reduced bowel preparation for CT colonography: a randomised controlled trial
N. Panvini1, D. M. Bellini1, M. Rengo1, S. Vicini2, I. Carbone1, A. Laghi2; Latina/IT, Sora/IT, Rome/IT

Cardiac

RPS 1003a 11:15 - 12:30 Room K

RPS 1003a-Colon cancer: techniques for detection and staging
Moderators:
E. Pershina; Moscow/RU
A. Toth; Budapest/HU

RPS 1003a-K 11:15
Keynote lecture
A. Kalifatidis; Thessaloniki/GR

RPS 1003a-1 11:25
Cardiac deformation parameters measured by cardiac magnetic resonance in a cohort of highly-trained endurance athletes
B. Domenech Ximenos, M. Sanz-de la Garza, D. Lorenzatti, A. Sepulveda, F. Crispi, R. J. Perea, S. Prat Gonzalez, M. Sitges; Girona/ES, Barcelona/ES, Santiago de Chile/CL

RPS 1003a-2 11:31
Non-invasive MRI evaluation of adjuvant chemotherapy effects on heart in breast cancer patients: 1-year follow-up in a single centre
C. de Cataldo1, E. Cannizzaro1, P. Palumbo1, S. Torlone1, M. C. de Donato1, M. Latessa2, S. Necozione1, E. Di Cesare1, C. Masciocchi1, L'Aquila/IT, Sienna/IT

RPS 1003a-3 11:37
Decreased myocardial deformation in athletes correlates with the degree of LV hypertrophy

RPS 1003a-4 11:43
Coronary athrosclerosis in apparently healthy master athletes discovered during pre-participation screening: role of coronary CT-angiography (CCTA)
G. Royere, R. Marano, B. Merlino, L. Natale, G. Savino, R. Manfredi; Rome/IT
RPS 1003a-5 11:49
Instant impact of a competitive event on ventricular strain by feature tracking cardiac magnetic resonance imaging and changes in cardiac biomarkers in triathletes
M. L. Warncke; J. Štareková; C. Jahnke; B. Scherer; K. Müllerleile; U. Radunski; G. Adam; G. Lund; E. Tahir; Hamburg/DE

RPS 1003a-6 11:55
Coronary CT-angiography in the clinical workflow of athletes with malignant anomalous origin of coronary arteries
F. Paciolla; R. Marano; G. Savino; L. Natale; B. Merlino; R. Manfredi; Rome/IT

RPS 1003a-7 12:01
Assessment of myocardial deformation in elite male weightlifters using cardiovascular magnetic resonance feature tracking technique
G. Ge; W. Xiaohua; Beijing/CN

RPS 1003a-8 12:07
Cardiac MRI texture analysis with semi-automatic segmentation: comparison between segmentation techniques and reproducibility
M. Orlando; N. Di Meo; G. M. Agazzi; M. Ravanelli; D. Farina; Brescia/IT

RPS 1003a-9 12:13
Native T1 mapping early detects the cardiotoxicity caused by daunorubicin: verified by histological
S. Wang; F. Gao; Chengdu/CN

RPS 1003a-10 12:19
Identifying early stages of doxorubicin-induced cardiotoxicity in rat model using 7.0 tesla cardiac magnetic resonance and creatine kinase isoenzymes
S. Wang; F. Gao; Chengdu/CN

RPS 1003a-11 12:25
Assessment of myocardial extracellular volume on routine body computed tomography in a cohort of breast cancer patients treated with anthracyclines
D. Capra; C. B. Monti; T. Bosetti; E. de Benedictis; A. Luporini; M. Ali; P. Sardanelli; F. Secchi; Milan/IT

11:15 - 12:30 Room M 1

Neuro

RPS 1011b 11:39
Between and within rater agreement in white matter hyperintensity segmentation from manual rating and a supervised automated classifier (FSL-BIANCA)
L. Grifantin; I. Mattioli; V. Bordin; I. Bertani; S. Suri; E. Zsoldos; K. Ebmeier; C. Mackay; G. Zamboni; Oxford/UK; Modena/IT; Milan/IT

RPS 1011b-6 11:45
A comparison of different radiomics models in the prediction of haematomata expansion in patients with intracerebral haemorrhages
H. Xie; S. Ma; X. Zhang; X. Wang; Beijing/CN

RPS 1011b-7 11:51
Automated MRI brain volumetry: a software comparison
P. Kousis; P. Toulas; E. Lamprou; Athens/GR

RPS 1011b-8 11:57
Deep learning AI technology matches lumbar spine MRI image quality at about 1/3 the scan time
L. N. Tanenbaum; M. Gibbs; S. Bash; L. Wang; H. Gandhi; P. Gulak; A. Shankararayanan; T. Zhang; Riverside; CT/US; Pasadena/US; Los Angeles/US; Palo Alto/US; Waukesha, WI/US; Menlo Park, CA/US

RPS 1011b-9 12:03
Automated expert level localisation of perivascular spaces in the centrum semiovale and the basal ganglia
K. M. H. van Wijnen; F. Dubost; P. Yilmaz; M. P. D. M. A. Ikram; W. J. Niessen; H. H. H. Adams; M. W. Vernooij; M. de Bruijine; Rotterdam/NL

RPS 1011b-10 12:09
The added diagnostic value of a model-based reconstruction algorithm in detecting acute trauma-related lesions in brain CT examinations in an emergency setting
C. Maino; D. Ippolito; S. Lombardi; L. Riva; C. R. G. L. Talei Franzesi; S. Sironi; M. Monza/IT; Milan/IT; Bergamo/IT

RPS 1011b-11 12:15
An advanced deep learning approach to automatically detect and segment intracranial aneurysms in patients with subarachnoid haemorrhages on CTA
R. Shahzad; L. Pennig; L. Goertz; F. Thiele; M. Perkuhn; J. Borggreve; Cologne/DE; Mannheim/DE; Aachen/DE

RPS 1011b-12 12:21
Morphometry: a way to facilitate the diagnosis of dementia?
P. Malmierca Ordoqui; A. Paternain Nuin; M. Calvo Imrizaldu; A. C. Igual Rouilleault; B. Echeveste; M. Riverol; P. Dominguez Echavarri; M. A. Fernandez Seara; R. Garcia de Eulate; Pamplona/ES

11:15 - 12:30 Room M 2

Imaging informatics

RPS 1005a 11:15
Radiomics and texture analysis
Moderators:
A. Bink; Frankfurt am Main/DE
D. Leithner; Frankfurt a. Main/DE

RPS 1005a-1 11:15
Differentiating head and neck paraganglioma versus schwannoma using texture analysis: a preliminary analysis
A. Ghosh; S. R. Malla; A. S. Bhalla; S. Manchanda; D. Kandasamy; Brescia/IT

RPS 1005a-2 11:21
Radiomics-based approach for the diagnosis of osteoporosis using hip radiographs
K. Sang Wook; J. Lee; S.-J. Ye; H. D. Chae; Seoul/KR

RPS 1005a-3 11:37
Quantitative ultrasound texture analysis of the foetal lung versus foetal pulmonary artery Doppler as a non-invasive predictor of neonatal respiratory distress syndrome (RDS)
N. Osman; Minia/EG
RPS 1005a-4 11:33
Can MRI texture analysis of the pancreas predict postoperative pancreatic fistulas?
S. M. Skawran; P. Kambakamba; B. Baessler; M. Kupka; D. Eshmuninov; H. Petroswky; C. S. Reiner; Zurich/CH

RPS 1005a-5 11:39
The influence of different levels of adaptive statistical iterative reconstruction (ASIR) regarding computed tomography texture features
T. Poldori; D. Caruso; E. Muscogiuri; D. de Santis; A. Laghi; Rome/IT

RPS 1005a-6 11:45
Correlation between CT texture parameters and clinicopathological properties of regional lymph nodes in patients with colon cancer
D. Wen; J. Y. Sun; Chengdu/CN

RPS 1005a-7 11:51
Classification of non-enhancing glioma tumours by diffusion MRI with B-tensor encoding: an explorative study of tumour heterogeneity
J. Brabec; F. Durmo; F. Szczepankiewicz; B. Lampinen; L. Knutsson; P. Sundgren; M. Nilsson; Lund/SE

RPS 1005a-8 11:57
Whole-tumour histogram analysis of diffusion kurtosis imaging as a predictive biomarker of tumour response in locally advanced rectal cancer treated with neoadjuvant chemoradiation
Y. Sun; T. T. Tong; G. Yajia; C. Fu; Shanghai/CN

RPS 1005a-9 12:03
Quantitative comparison of a novel visualisation technique (gradient-intensity projection, GIP) with an average projection for ultra-low-dose CTs of the chest
S. Carey; B. E. Hoppel; W. Hamilton; S. Kandell; P. Rogalla; 1Toronto, ON/CA; 2Vernon Hills, WI/US; 3Berlin/CA

RPS 1005a-10 12:09
Phantomless assessment of volumetric bone mineral density using virtual non-contrast images from spectral detector computed tomography
C. E. S. Zaagsma; D. Zopfs; S. Lennartz; K. R. Laukamp; M. Merkt; R. P. Reimer; D. Maintz; J. Borggreve; N. Grosse Hokamp; 1Cologne/DE; 2Coblenz/DE; 3Münster/DE

RPS 1005a-11 12:15
Supervised machine learning predictive modelling for primary versus secondary lung malignancy in CT-guided transthoracic biopsies
E. J. M. Barbosa Jr; D. Lindsay; N. Sachs; J. Gee; Philadelphia, PA/US

RPS 1005a-12 12:21
Dominant language hemisphere detection by using a ML model informed by structural and functional connectivity
S. Pascual-Diaz; J. C. Pariente; E. Muñoz-Moreno; C. Garrido; E. Conde; N. Bargallo; 1Barcelona/ES

11:15 - 12:30 Room M 3

Abdominal Viscera

RPS 1001c
Liver imaging and beyond: giving answers to clinical questions
Moderators:
R. Dežman; Ljubljana/SI
A. Wetter; Essen/DE

RPS 1001c-1 11:15
Long-term evolution of hepatocellular adenomas at MR imaging follow-up
F. Vernuccio; R. Maxime; M. Dioguardi Burgio; F. Cauchi; S. Dokmak; D. Valla; J. Zucman-Rossi; V. Paradis; V. Vilgrain; 1Palermo/IT; 2Clichy/FR; 3Paris/FR

RPS 1001c-2 11:21
Prediction of histopathological growth patterns by radiomics and CT-imaging in patients with operable colorectal liver metastases: a proof-of-concept study
M. P. A. Starmans; F. E. Buisman; F. Willemsen; S. R. van der Voort; D. J. Grünhagen; P. B. Vermeulen; C. Verhoeft; S. Klein; J. J. Visser; 1Rotterdam/NL; 2Antwerp/BE

RPS 1001c-3 11:27
MRI of atypical liver haemangioma: significant imaging features to differentiate accurately from cholangiocarcinoma
R. Boxhoorn; R. S. Dwarkasing; F. Willemsen; G. P. Krestin; Rotterdam/NL

RPS 1001c-4 11:33
New IVIM parameter PDR (perfusion/diffusion ratio) in discrimination of benign and malignant focal liver lesions
J. Podgorska; P. Kus; B. Gołębiowski; K. Pasicz; J. Jasieniak; A. Rogowska; W. Skrzysztki; P. Kuklołowicz; A. Cieszanowski; Warsaw/PL

RPS 1001c-5 11:39
Hepatic uptake index in the hepatobiliary phase of Gd-EOB-DTPA-enhanced magnetic resonance imaging estimates functional liver reserve and predicts posthepatectomy liver failure
M. Donadon; E. Lanza; B. Branciforte; R. Muggia; C. Li; V. Pedicini; D. Poretti; L. Balzarini; G. Torzilli; 1Rozzano/IT; 2Pieve Emanuele/IT

RPS 1001c-6 11:45
Improved display of hepatic arteries with multiple arterial phases using differential sub-sampling with cartesian ordering: comparison with single arterial phase and computed tomographic angiography
Z. Ye; Y. Wei; H. Tang; B. Song; Chengdu/CN

RPS 1001c-7 11:51
CT texture analysis and liver regeneration: preliminary data on associating liver partition and portal vein ligation for staged hepatectomy (ALPPS) in liver malignancies
A. Borgheresi; A. Agostini; A. Mari; L. Ottaviani; D. Nicolini; M. Vivarelli; S. Maggi; A. Giovanonni; 1Ancona/IT

RPS 1001c-8 11:57
Liver size estimation revisited: why we should replace distance measurements in midclavicular line by automated volumetry
T. J. Weikert; D. J. Winkel; H.-C. Breit; L. Noordtzij; T. Heye; D. Boll; Basel/CH

RPS 1001c-9 12:03
Can CT textual analysis reliably differentiate peritoneal tuberculosis from peritoneal carcinomatosis?
N. Khan; M. Awais; Karachi/PK

RPS 1001c-10 12:09
Assessment of peritoneal carcinomatosis using iodine overlays from spectral detector computed tomography
S. Lennartz; D. Zopfs; N. Abdullahayev; M. Le Blanc; K. Slebocki; A. Wagner; C. Wybranski; N. Grosse Hokamp; T. Persigehl; 1Cologne/DE

RPS 1001c-11 12:15
Analysis of non-enhanced CT characteristics in patients with ultra-long-term continuous ambulatory peritoneal dialysis
J. Guan; X. Hu; F. Zhang; Y. Peng; Guangzhou/CN

RPS 1001c-12 12:21
Distinguishing benign from malignant focal liver lesions (FLL) using the apparent diffusion coefficient (ADC): impact of post-processing on the diagnostic accuracy?
M. Dietzel; S. Ellmann; M. Saake; M. Hammon; M. Uder; R. Janka; 1M. P. A. Starmans; 2Antwerp/BE

Abdominal Viscera
**RPS 1010b - Hip, pelvis and lower extremity**

**Muscloskeletal**

**RPS 1010b-1** 11:15

3D structural parameters predict future total hip replacement better than current 2D radiographic standards: an AGES-Reykjavik study

T. Turmezei1, G. M. Treece1, A. H. Gee1, S. Sigurjonsdottir1, H. M. M. Jonsson1, T. Aspelund2, V. Gudnason2, K. E. S. Poole1, ‘Cambridge/UK, ‘Reykjavik/IS, ‘Kopavogur/IS

**RPS 1010b-2** 11:21

CT assessment of muscle mass and hip for surgery: a feasibility study

S. Zannini1, D. Albano1, M. Jannone1, L. Pedone1, C. Messina1, L. M. M. Sconfienza1, ‘Milan/IT

**RPS 1010b-3** 11:27

Does the use of magnetic resonance imaging in occult and suspected metastatic pathological neck of femur fractures affect the choice of surgical intervention?

B. Budair1, M. J. H. Al-Tibi1, T. Boutenfouchet; ‘Birmingham/UK

**RPS 1010b-4** 11:33

Potential of susceptibility-weighted imaging for the reliable assessment of angle measurements reflecting hip morphology

S. M. Böker1, L. Adams1, U. L. Fahlenkamp1, B. Hamm1, M. R. Makowski1, ‘Berlin/DE

**RPS 1010b-5** 11:39

Equivalence between MRI-based synthetic CT and conventional CT in the morphological assessment of the femoroacetabular joint

M. C. Florikow1, K. Willemsen1, F. Zijlstra1, C. Wismans1, B. van der Wal1, H. Weinans1, M. van Stralen1, R. Sakkers1, P. R. Seevinck1, ‘Utrecht/NL

**RPS 1010b-6** 11:45

Improved performance of orthopaedic metal artefact reduction in virtual mono-energetic spectral images compared to conventional poly-energetic images: a total hip arthroplasty phantom study

V. Sluiterenberg1, R. H. H. Wellenberg1, L. van de Riet1, I. M. Nikholt2, J. van Osch1, R. W. van Hamersvelt1, P. A. de Jong1, T. Leiner1, M. F. Boomsma1, ‘Utrecht/NL, ‘Zwolle/NL

**RPS 1010b-7** 11:51

Iliopsoas impingement after THR: our purpose of a diagnostic and therapeutic algorithm


**RPS 1010b-8** 11:57

Integrity of the pectineal ligament in MRI correlates with radiographic superior pubic ramus fracture displacement

A. Vliet1, H. Steineke1, P. Pieroh1, A. Höch1, T. Denecke1, C. Josten1, G. Osterhoff1, ‘Leipzig/DE

**RPS 1010b-9** 12:03

Quantification of metal artefact reduction of various MRI techniques in 10 common total hip arthroplasty implants: when less is more


**RPS 1010b-10** 12:09

Validation of a physical examination test for ischiofemoral impingement with correlation of MRI findings

Z. M. Özdemir1, T. Yıldırım1, L. Karaca1, A. Sağır Kahraman1, Ü. Aydingöz1, ‘Malatya/TR, ‘Ankara/TR

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**Research Presentation Sessions / My Thesis in 3 Minutes / Clinical Trials in Radiology**

**RPS 1010b-11** 12:15

Glycosaminoglycan chemical exchange saturation transfer imaging of the talocrural joint in patients with osteochondral lesions and healthy volunteers

M. Boschheidegen1, M. Frenken1, A. Müller-Lutz1, L. Kasprowski1, G. Antoch1, C. Schleich1, S. Nebeling1, D. B. Abrar1, ‘Düsseldorf/DE, ‘Aachen/DE

**RPS 1010b-12** 12:21

Patients with pincer FAI due to protrusio acetabuli or acetabular retroversion have intra- and extra-articular anterior subspine hip impingement on a 3D-CT-basedimpingement simulation

T. Lerch1, F. Schmaranzer1, T. Todorski1, M. Hanke1, C. Leibold1, S. Steppacher1, K. Siebenrock1, M. Tannast1, Berne/CH

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**Artificial Intelligence and Machine Learning**

**RPS 1005b - Artificial intelligence and machine learning in reporting and workflow**

**Moderators:**
M. Fatehi; Tehran/IR
D. Pinto dos Santos; Cologne/DE

**RPS 1005b-1** 11:15

Radcount: an integrated system to represent essentials of the radiology examination and reporting processes

K. Nair1, J. Schuhmacher1, P. Zingg1, M. Sladem1, M. Abu Baker1, J. T. Everhagen1, Berne/CH

**RPS 1005b-2** 11:21

IILS: an intelligent imaging layout system to realise automatic imaging-report standardisation and to optimise intra-interdisciplinary clinical workflow

Y. Wang1, Nanjing/IN

**RPS 1005b-3** 11:27

Machine learning-based assistance to context-sensitively suggest ASPECT score during the reporting of neuroradiological emergencies

C. G. Choi1, A. Junge1, B. Kämpgen1, V. Saase1, A. Ulfert1, E. L. Gonzalez1, T. Ganslandt1, H. Wenz1, M. E. Maros1, ‘Mannheim/DE, ‘Rimpar/DE

**RPS 1005b-4** 11:33

RANO check: a deep learning language model-based automatic response labelling using solely the findings sections of conventional free-text reports of brain tumours

M. E. Maros1, A. Junge1, V. Saase1, C. G. Choi1, B. Kämpgen1, C. Groden1, T. Ganslandt1, H. Wenz1, ‘Mannheim/DE, ‘Rimpar/DE

**RPS 1005b-5** 11:39

Automating quality control for standardised structured radiology reports using text analysis

C. Thou1, A. Dhangadhariya1, D. Fournier1, H. Müller1, H. Brat1, ‘Sion/CH, ‘Sierre/CH

**RPS 1005b-6** 11:45

Automatic pre-population of normal chest x-ray reports using a high-sensitivity deep learning algorithm: a prospective study of clinical AI deployment

V. Mahajan1, N. S. Batta1, S. Gupta1, V. K. Venugopal1, Mahajan1, M. Murugavel1, ‘New Delhi/IN

**RPS 1005b-7** 11:51

AI-based understanding and visualisation of spinal MRI reports

K. Orlov1, E. Szabó1, A. Kicsi1, P. Pusztai1, K. Szabó1, L. Vidács1, T. Ganslandt1, H. Wenz1, ‘Budapest/HT, ‘Szeged/HT

**RPS 1005b-8** 11:57

Radiology report generation using pointer networks: a step towards radiology report standardisation

A. Kharat1, J. Tandale2, A. Ahmad2, R. Lokwani2, A. Patil2, ‘Mumbai/IN, ‘Pune/IN

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**Research Presentation Sessions / My Thesis in 3 Minutes / Clinical Trials in Radiology**

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**ECR 2020 | Scientific Programme**
RPS 1005b-9 12:03
Validation of a high precision semantic search tool using a curated dataset containing related and unrelated reports of clinically relevant search terms
V. K. Venugopal1, N. Kumar1, V. Jagannatha1, V. Mahajan1, H. Mahajan1, S. Rajani, A. Shastry2, R. Rao K.; ‘New Delhi/IN, ‘Bangalore/IN

RPS 1005b-10 12:09
Decision support system for automated CT abdominal imaging protocol selection using natural language processing with machine learning

RPS 1005b-11 12:15
Natural language processing enables a correlation of clinical information with positive findings in low-dose computed tomography in patients with suspected urolithiasis
T. Jorg1, B. Kampgen1, P. Mildenberger1, C. Duber1, P. Mildenberger1, F. Jungmann1; ‘Mainz/DE, ‘Rimpar/DE

RPS 1005b-12 12:21
Development of a software application for the automatic determination of CT protocols using natural language processing
A. Ciritsis1, T. Frauenfelder1, C. Rossi1, A. Boss1; ‘Zurich/CH

11:15 - 12:30 Tech Gate Auditorium

Cardiac

RPS 1003b
Transcatheter structural cardiac intervention: TAVI and beyond
Moderators:
F. Michallek; Berlin/DE
F. Wolf; Vienna/AT

RPS 1003b-K 11:15
Keynote lecture
C. Celeng1; Utrecht/NL

RPS 1003b-1 11:25
Morphometric and subjective frailty assessment in transcatheter aortic valve implantation
M. Giannoudi1, M. A. Wadudd1, M. Drozd1, T. Slater1, P. P. J. Sucharitkul1, D. Blackman1, J. Scott1; ‘Leeds/UK, ‘Glasgow/UK

RPS 1003b-2 11:31
Possibility of estimating the aortic valve calcium score based on the angiographic phase of multidetector computed tomography performed before transcatheter aortic valve implantation
P. Gac1, B. Kedzierski1, P. Macek1, G. Mazur1, R. Poreba1, K. Pawlas1; ‘Wroclaw/PL

RPS 1003b-3 11:37
CT-coronary angiography in high-pitch-TAVI-planning-CT: why it rarely works
P. Seitz1, R. F. Gohmann1, S. Gottschling1, D. Holzhey1, H. Thiele1, M. Abdel-Wahab1, C. Lücke1; ‘Leipzig/DE

RPS 1003b-4 11:43
Sinus of Valsalva thrombosis detected on computed tomography after transcatheter aortic valve replacement
S. J. Lim1, H. J. J. Koo1, J.-W. Kang1, D. H. Yang1; ‘Seoul/KR

RPS 1003b-5 11:49
The impact of coronary artery disease and pre-procedural percutaneous coronary intervention on the short and long-term mortality after transcatheter aortic valve implantation
T. P. W. van Den Boogert1, J. Vendrik1, J. Gunster1, M. van Mourik1, B. Claessen1, F. van Kesteren1, N. R. Planken1, J. Baan1, J. Henriques1; ‘Amsterdam/NL

RPS 1003b-6 11:55
Cardiac computed tomography versus transoesophageal echocardiography in preoperative sizing of ostium secundum atrial septal defect prior to transcatheter closure
S. T. Wong1, T. Pressat-Laffouilhère1, K. Warin Fresse1, S. Bejar1, F. Bauer1, J.-H. Dacher1; ‘Rouen/FR, ‘Nantes/FR

RPS 1003b-7 12:01
Role of CT in the preoperative setting of transcatheter mitral valve interventions: which is the correct phase for mitral annulus sizing?
V. Nicoletti1, A. Palmisano1, D. Vignale1, L. Pannone1, C. Colantoni1, A. Del Maschio1, F. de Cobelli1, A. Esposito1; ‘Milan/IT

RPS 1003b-8 12:07
Predictors of cerebral embolisation after percutaneous transformal aortic valve implantation: a RETORIC substudy
F. I. Suhai1, A. Varga1, B. Szilvereszter1, J. Karady1, A. Panajotu1, A. Bartykowski1, A. I. Nagy1, B. Merkely1, P. Maurovich-Horvat1; ‘Budapest/HU

RPS 1003b-9 12:13
Combined coronary CT-angiography and TAVI-planning: a contrast-neutral and efficient routine approach to exclude significant coronary artery disease
R. F. Gohmann1, P. Lauten1, C. D. Krieghoff1, P. Seitz1, C. Lücke1, M. Abdel-Wahab1, D. Holzhey1, H. Thiele1, M. Gutberlet1; ‘Leipzig/DE

RPS 1003b-10 12:19
Cardiac magnetic resonance imaging parameters of right ventricular function predict mortality in a cohort of patients undergoing transcatheter aortic valve implantation (TAVI)
J. Schmid1, C. Kamm1, D. Zweiker1, D. Hatz1, A. Schmidt1, M. Fuchsjaeger1, A. Zirlik1, J. Binder1, P. Rainer1; ‘Graz/AT

RPS 1003b-12 12:25
Imaging of the left atrial appendage prior to occluder device placement: introduction of a new single-contrast bolus dual-phase protocol adapted to spectral-detector CT
K. R. Laukamp1, S. Dastmalchian1, L. Ciancibello1, L. Pennig1, C. Nelles1, T. Hickethier1, R. Gilkeson1, A. Gupta1; ‘Cologne/DE, ‘Cleveland, OH/US

14:00 - 15:30 Room X

Student Session

S 11
My scientific paper in the field of neuroimaging
Moderator:
D. Negru1; Iasi/RO

S 11-1 14:05
Direct detection of metabolic changes in rat brain slices during perfusion arrest: implications for imaging of cerebral ischaemia with hyperpolarised MR
D. Shaul1, B. Grieb2, G. Sapir1, S. Uppala1, J. Sosna1, J. M. Gomori1, R. Katz-Brull1; ‘Jerusalem/IL, ‘Ravensburg/DE

S 11-2 14:15
Evaluation of the diagnostic role of shear-wave elastography in patients with carpal tunnel syndrome
S. A. Seyed Mokhtari1, A. Afshar2; ‘Tehran/IQ

S 11-3 14:25
Time-dependent cardiovascular effects of intra-arterial milrinone and nimodipine application in cerebral vasospasm
J. Jentsch1, H. Merkle1, S. Ziganshyna1, K. Gaber1, D. Lindner1, S. Slob1, U. Quaeschling1, K.-T. Hoffmann1, C. Richter1; ‘Leipzig/DE

S 11-4 14:35
The treatment of wide-necked bifurcation aneurysms with the use of a pCONus device and its complications: a meta-analysis
K. Krupa1, I. Kucybała1, P. Brzegowy1, A. Urbanik1; ‘Leipzig/DE

S 11-5 14:45
Stenting of intracranial stenosis in acute stroke: single-centre experience from the last decade
M.-S. Schüngel1, S. Schob1, K.-T. Hoffmann1, U. Quaeschling1; ‘Leipzig/DE
Physics in Medical Imaging

RPS 1113
Improving quality to build safety

Moderators:
N.N.
L. Sukupova; Prague/CZ

RPS 1113-K
Keynote lecture
H. Dells Patras/GR

RPS 1113-1
Achievable doses and diagnostic reference levels for computed tomography for EUCLID (European study on clinical DRLs) clinical indications: data from a multinational dose registry
D. Bos1, S. Yu2, J. Luong2, P. Chui, Y. Wang2, A. Wetter1, R. Smith-Bindman9, ‘Essen/DE, ‘San Francisco, CA/US

RPS 1113-2
Achievable doses and diagnostic reference levels for paediatric computed tomography for different age groups and clinical indications: data from a multinational dose registry
D. Bos1, S. Yu2, J. Luong2, P. Chui, Y. Wang2, R. Smith-Bindman9, ‘Essen/DE, ‘San Francisco, CA/US

RPS 1113-3
A 3-years retrospective study of cumulative radiation exposure from recurrent imaging for oncological patients
I. Dyakov1, V. Stoyanova, J. Vassileva9, ‘Sofia/BG, ‘Vienna/AT

RPS 1113-4
Dose optimisation for CT scans of the temporal bone using a spectral tinning filter

RPS 1113-5
Accelerated Monte Carlo simulation of patients’ doses in interventional radiology procedures using the MC-GPU code
M. Ginjaume, M. A. Duch, D. Fernández Bosman, C. Delgado, ‘Barcelona/ES

RPS 1113-6
X-ray dark-field chest radiography: the first clinical implementation
K. Willer1, T. Urban1, W. Noichl1, M. Frank1, R. C. Schick1, B. Renger2, T. Koehler1, J. Herzen1, F. Pfeiffer1, ‘Garching/DE, ‘Munich/DE, ‘Heidelberg/DE

RPS 1113-7
X-ray dark-field chest radiography: scatter artefact reduction
T. Koehler1, K. J. Engeli1, A. Varoshenko1, K. Willer1, W. Noichl1, T. Urban1, A. A. Fingerle1, D. Pfeiffer1, F. Pfeiffer1, ‘Garching/DE, ‘Eindhoven/NL, ‘Munich/DE

RPS 1113-8
The probability and impact of a high radiation dose in patients undergoing CT examinations

RPS 1113-9
First SSDE reference values for paediatric head CT examinations
A. S. L. Dedulie1, K. Houbrechts, N. Fitousi, J. Jacobs, H. Bosmans, ‘Leuven/BE

RPS 1113-10
The small-size detail detection performance of digital breast tomosynthesis, synthetic 2D, and conventional full-field digital mammography images for different mammography systems: a multicentre study
V. Ragaglia1, L. Angelini1, M. Bertolini1, G. della Galla1, S. Farneti1, P. Golinelli1, L. Pagan1, N. Scrittori1, G. Venturi1, ‘Ravenna/IT, ‘Rimini/IT, ‘Reggio Emilia/IT, ‘Sassuolo/IT, ‘Modena/IT, ‘Bologna/IT, ‘Forlì/IT

RPS 1113-11
Image quality evaluation of a new high-resolution 3-D digital breast tomoscopic (DBT) imaging system
J. C. O’Driscoll1, E. Ranahan1, M. F. M. McEntee2, J. McCullagh1, ‘Cork/AU

Vascular

RPS 1115
Pulmonary arteries, veins, aorta, carotid and lymphatics

Moderators:
N.N.
A. Van Der Lugt; Rotterdam/NL

RPS 1115-1
Response to balloon pulmonary angioplasty in treated versus untreated pulmonary arteries in CTEPH patients

RPS 1115-2
Pulmonary artery enlargement is independently associated with 1-year mortality in transcatheter aortic valve replacement patients: a retrospective longitudinal study
V. L. Turner1, M. J. Willemin1, A. Jibrani2, J. B. Kim1, E. M. Maret1, K. J. Moneghetti1, F. Haddad1, D. Fleischmann1, ‘Stanford, CA/US, ‘Hafiz/Iran

RPS 1115-3
The cost-effectiveness of contrast-enhanced ultrasound (CEUS) for the detection of type I and III endoleaks after EVAR: the role of CEUS as the most cost-effective imaging modality
M. F. Froelich1, W. G. Kunz2, S. H. Kim1, D. A. Clevert1, J. Rübenhaeler1, ‘Mannheim/DE, ‘Munich/DE, ‘Frankfurt am Main/DE

RPS 1115-4
Value of dynamic perfusion computed tomography in the detection and classification of endoleaks after endovascular aortic repair (EVAR)
**RPS 1115-5** 14:24
Dual-energy CT iodine mapping and virtual monochromatic series applications in the diagnosis of endoleak after endovascular aortic repair (EVAR) planning

P. Hou, Zhengzhou/CN

**RPS 1115-6** 14:30
The incidence of penetrating aortic ulcer (PAU) as a cause for non-aneurysmal rupture of the abdominal aorta: a single-centre experience

K. Andreychuk1, N. Chernaya1, V. E. Savello1, N. N. Andreychuk1, O. Krotova1; 1St. Petersbourg/RU, 2Moskow/RU

**RPS 1115-7** 14:36
An evaluation of the changes of renal blood flow before and after an operation in patients with aortic dissection

D. Liu; Beijing/CN

**RPS 1115-8** 14:42
A feasibility study of virtual non-contrast imaging derived from single-source fast kVp-switching dual-energy CTAs in patients with aortic dissection

B. Wen, J. Liu, L. Xu; Beijing/CN

**RPS 1115-9** 14:48
High-frequency 3D lumen volume ultrasound is a sensitive method to detect early atherosymal changes in elastase-induced murine abdominal aortic aneurysms

M. A. Wadud1, P. Kandavelu, M. Reay, M. Bailey; Leeds/UK

**RPS 1115-10** 14:54
Sex differences in vulnerable plaque composition and morphology in patients with mild-to-moderate carotid artery stenosis

D. H. Dam-Nolen1, N. C. van Egmond1, M. E. Kooi2, J. Hendriks2, P. J. Nederkoom3, P. J. Koudstaal1, D. Bos1, A. van der Lugt1; Rotterdam/NL, 2Maastricht/NL, 3Utrecht/NL, 4Amsterdam/NL

**RPS 1115-11** 15:00
Carotid plaque neovascularisation detection and assessment accuracy with the contrast-enhanced ultrasound (CEUS) method

A. Lioznovs1, A. Radzina2, A. Lacis3, A. Jukna4, I. Briede4, Y. Solskaya4, L. Dronka1, S. Pavlovics1; Riga/LV

**RPS 1115-12** 15:06
Vessel wall imaging using CT: an innovative dual-energy protocol for differentiating vascular pathologies

W. Zho, A. C. C. Goh; Sydney/AU

**RPS 1115-13** 15:12
Inguinal lymphadenopathy as a predicting factor for primary amputation in patients after endovascular treatment

D. Raskin, S. Balan, G. Mozes, D. Silverberg, A. Aburamila, M. Halak, U. Rimon; Ramat Gan/IL

**RPS 1115-14** 15:18
The effect of different compression stockings on venous malformations: a systematic assessment of morphology and quality of life

R. Heiß, A. Dr. Mükke, M. S. May, W. Wuest, M. Uder, R. Janka, W. Lang; Erlangen/DE

**RPS 1115-15** 15:24
The results of an ultrasound vein valve study change current saphenous therapy

J. C. Raag, J. Grünwald; Berlin/DE

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**RPS 1104**

**RPS 1104-1** 14:00
μCT-monitoring of neutrophil elastase deficiency on a mouse model of cystic fibrosis-like lung disease


**RPS 1104-2** 14:06
Application of ultra-high-resolution computed tomography target scan in lateral or oblique body position in predicting histological invasiveness of persistent pure ground-glass nodules

H. Ren, L. Xu, F. Sun, F. Liu, J. Cai, L. Yu, W. Guan, H. Xiao, H. Li; Shanghai/CN

**RPS 1104-3** 14:12
Pulmonary MR imaging with ultra-short echo time (UTE): a comparison of vapabilities for nodule detection and lung-RADS classification with low- and standard-dose CTs

Y. Ohno1, M. Yui1, D. Takenaka1, T. Yoshikawa1; 1Toyoake/JP, 2Ohtawara/JP, 3Akashi/JP, 4Kobe/JP

**RPS 1104-4** 14:18
Chronic lung allograft dysfunction (CLAD) after lung transplantation: comparing CT features between bronchiolitis obliterans syndrome, restrictive allograft syndrome, and non-CLAD patients

P. Aarawal1, C. L. Schlett1, A. Wielandner2, P. Jakesch2, C. Wissiapu2, A. Benazzo2, H. Prosch2; 1Freiburg/DE, 2Vienna/AT

**RPS 1104-5** 14:24
Functional MRI diffusion and chemical shift imaging in the assessment of anterior mediastinal masses

Y. Sabri1, M. A. Fouad1, S. A. E. H. Abd El Rahman1, Y. El Hinnawy2; Cairo/EG, 2Giza/EG

**RPS 1104-6** 14:30
A comparison of capability for therapeutic effect prediction between CEST imaging and FDG-PET/CT in non-small cell lung cancer patients with chemoradiotherapy

Y. Ohno1, M. Yui2, T. Yoshikawa2; 1Toyoake/JP, 2Ohtawara/JP, 3Kobe/JP

**RPS 1104-7** 14:36
Non-contrast-enhanced assessment of lung perfusion in patients with cystic fibrosis during respiratory tract exacerbation using Fourier decomposition magnetic resonance imaging (FD-MRI)

A. Mazzaro1, F. Serafini1, P. Clet1, S. Bertolo4, M. Ros1, N. Landini4, G. Morana1; 1Verona/IT, 2Padua/IT, 3Rotterdam/NL, 4Treviso/IT, 5Arezzo/IT

**RPS 1104-8** 14:42
Repeatability of the phase-resolved functional lung (PREFUL) MRI derived ventilation and perfusion dynamics in COPD and healthy controls

G. H. Poelner, A. Voskerbenzev, F. Klimes, L. Behrendt, T. F. Kaireit, M. Gutberlet, F. Wacker, J. Hohlfeld, J. Vogel-Claussen; Hanover/DE

**RPS 1104-9** 14:48
Acquiring CT scans in different respiratory phases in patients with pulmonary emphysema: a comparison of quantitative CT analysis and clinical data

L. Song1, J. Leppig2, R.-H. Huebner2, D. B. C. Lassen-Schmidt4, Z. Jin1, F. Doellinger2, 1Beijing/CN, 2Berlin/DE, 3Bremen/DE

**RPS 1104-10** 14:54
Chest MRI in cystic fibrosis and chronic obstructive pulmonary disease: reproducibility and comparison with pulmonary function testing

M. O. Wielopolski1, M. Eichinger1, S. M. F. Triphan2, S. Wegel3, H.-U. Kauczor3, M. Puderbach4, F. Risse1, C. P. Huessel5, G. Huessel1; Heidelberg/DE, 1Biberach an der Riß/DE
CTiR 11-1 | 15:00
Measuring ventilation inhomogeneity in cystic fibrosis using unenhanced functional 3D-UTE MRI

J. P. Heidenreich1, A. Weng1, C. Metz1, T. Benkert1, H. Hebestreit1, T. A. Bley1, H. Köstler1, S. Veldhoen1, *Würzburg/DE, †Erlangen/DE

CTiR 11-2 | 15:06
Radiomic features: the biomarker used for distinguishing EGFR DEL19 and L858R sensitising mutation subtype

J. Li1, Q. Weng1, H. Wang1, J. Hui1, C. Lan1, M. Chen1, P. Pang2, M. Xu1, *Lishui/CN, †Hangzhou/CN

CTiR 11-3 | 15:12
The prognostic utility of reporting the ordinal coronary artery calcification score in routine chest CTs to prevent cardiovascular events

H. Bernardo Fernandez1, M. Perez-Peña Del Llano2, A. Renilla2, *Oviedo/ES, †Mieres/ES

CTiR 11-4 | 15:18
A comparison of quantitative lung parenchyma and airway parameters in low and ultra-low dose computed tomography

Q. Weinheimer1, L. Yu1, J. G. Fletcher2, M. O. Wielputz1, C. P. Heusel1, H.-U. Kauczor1, C. J. Galban3, T. E. Robinson4, B. Bartholmai1, *Heidelberg/DE, †Rochester, MN/US, ‡Ann Arbor, MI/US, ††Palo Alto, CA/US

CTiR 11-5 | 15:24
Reducing artefacts from contrast media in the thorax in dual-layer spectral detector CT: using virtual monoenergetic image reconstructions and orthopaedic metal-artefact-reduction algorithms

N. N. Pan1, S. Wang1, X. Lu2, ††Shanghai/China

CTiR 11-6 | 15:30
Staging of paediatric Hodgkin lymphoma: a prospective multicentre study

T. Kwee2, N. Tolboom1, R. A. J. Nievelstein1, *Nijmegen/NL, †*Rotterdam/NL, ‡Utrecht/NL

CTiR 11-7 | 14:45
Pivotal study of MRI-guided transurethral ultrasound ablation (TULSA) in men with localised prostate cancer

J. J. Futterer1, D. Bonekamp1, S. Arora1, S. Raman1, T. Tirkes1, K. J. Macura1, J. Chini1, L. Klotz2, S. Eggener1, *Nijmegen/NL, ††Hirschberg/DE, ‡Nashville/US, ‡†Los Angeles/US, ††Indianapolis, IN/US, ††Baltimore, MD/US, †London, ON/CA, ††Toronto, ON/CA, ††Chicago/US

CTiR 11-8 | 14:55
Discussant

V. Panebianco; Rome/IT

CTiR 11-9 | 15:00
Adherence to PI-RADS v2 minimum technical requirements in the PRECISION trial: a new quality control scoring system for multiparametric MRI of the prostate

F. Giganti, V. Kasivisvanathan, S. Punwani, M. Emberton, C. Allen, C. M. Moore. Precision Study Group Collaborators; London/UK

CTiR 11-10 | 15:10
Discussant

N.N.

CTiR 11-11 | 15:15
MRI in addition to mammography screening in women with extremely dense breasts: outcome of the second (incident) round of the randomised DENSE trial

M. F. Bakker, S. V. de Lange, R. M. Pijnappel, W. B. Veldhuis, C. van Gils, O. B. O. T. Dense Study Group; Utrecht/NL

CTiR 11-12 | 15:25
Discussant

A. O. Oktay Alfatli; Izmir/TR

14:00 - 15:30 Room Y

CTiR 11 | Clinical Trials in Radiology 3

Moderators:
M. Dewey; Berlin/DE
M. Mahoney; Cincinnati, OH/US

CTiR 11-1 | 14:00
MR CLEAN-MED - The effect of periprocedural medication in acute ischemic stroke treatment: acetylsalicylic acid, unfractionated heparin, both or neither? Interim results and protocol amendment

R. van de Graaf1, B. Roozenbeek1, V. Chalos1, A. C. G. M. van Es1, *Rotterdam/NL, ††Utrecht/NL, ‡Würzburg/DE, †††Warshaw/US

CTiR 11-2 | 14:10
Discussant

K. Dolić; Split/HR

CTiR 11-3 | 14:15
The effect of density on recall, detection, and interval cancer rates in tomosynthesis plus digital mammography or digital mammography alone: preliminary results from RETomo trial

F. Cobianchi Bellisari, F. Sgalambro, E. Di Cesare, C. Masciocchi, *Reggio Emilia/IT, †Parma/IT

CTiR 11-4 | 14:25
Discussant

P. Skanne; Oslo/NO

CTiR 11-5 | 14:30
Whole-body MRI versus an FDG-PET/CT-based reference standard for staging of paediatric Hodgkin lymphoma: a prospective multicentre study

S. Spijkers1, A. S. Littooij1, A. Beishiuen1, S. G. Elias1, B. de Keizer1, T. Kwee1, N. Tolboom1, R. A. J. Nievelstein1, *Utrecht/NL, †Groningen/NL

CTiR 11-6 | 14:40
Discussant

E. L. Towne; Dublin/IE

CTiR 11-7 | 14:45
Pivotal study of MRI-guided transurethral ultrasound ablation (TULSA) in men with localised prostate cancer

J. J. Futterer1, D. Bonekamp1, S. Arora1, S. Raman1, T. Tirkes1, K. J. Macura1, J. Chini1, L. Klotz2, S. Eggener1, *Nijmegen/NL, ††Hirschberg/DE, ‡Nashville/US, ‡†Los Angeles/US, ††Indianapolis, IN/US, ††Baltimore, MD/US, †London, ON/CA, ††Toronto, ON/CA, ††Chicago/US

CTiR 11-8 | 14:55
Discussant

V. Panebianco; Rome/IT

CTiR 11-9 | 15:00
Adherence to PI-RADS v2 minimum technical requirements in the PRECISION trial: a new quality control scoring system for multiparametric MRI of the prostate

F. Giganti, V. Kasivisvanathan, S. Punwani, M. Emberton, C. Allen, C. M. Moore. Precision Study Group Collaborators; London/UK

CTiR 11-10 | 15:10
Discussant

N.N.

CTiR 11-11 | 15:15
MRI in addition to mammography screening in women with extremely dense breasts: outcome of the second (incident) round of the randomised DENSE trial

M. F. Bakker, S. V. de Lange, R. M. Pijnappel, W. B. Veldhuis, C. van Gils, O. B. O. T. Dense Study Group; Utrecht/NL

CTiR 11-12 | 15:25
Discussant

A. O. Oktay Alfatli; Izmir/TR

14:00 - 15:30 Coffee & Talk 3

Cardiac

RPS 1103 | 14:10
Anatomic and functional assessment of CAD with CCTA: what's new?

Moderators:
R. Faletti; Turin/IT
N.N.

RPS 1103-K | 14:00
Keynote lecture

U. Hoffmann; Boston/US

RPS 1103-1 | 14:10
Functional prediction by corrected coronary opacification (CCO) from coronary computed tomography angiography (CCTA) in the assessment of not evaluable well-calcified plaque

P. Palumbo, E. Cannizzaro, S. Torione, A. Corridore, M. C. de Donato, F. Cobianchi Bellisari, F. Sgalambro, E. Di Cesare, C. Masciocchi; L'Aquila/IT

RPS 1103-2 | 14:16
Coronary CT angiography-derived plaque quantification for the identification of lesion-specific ischemia

N. Zhao, Y. Gao, B. Lv; Beijing/CN

RPS 1103-3 | 14:22
Coronary CT angiography derived plaque markers correlated with invasive instantaneous flow reserve for detecting haemodynamically significant coronary stenoses

D. Overhoff, G. Özdemir1, U. J. Schoepf1, I. Akin1, D. Lossnitzer1, M. Börggreffe1, S. O. Schönberg1, S. Baumann1, S. Janssen1; ††Mannheim/DE, ††Charleston, SC/US

RPS 1103-4 | 14:28
Performance of a deep learning algorithm for the evaluation of CAD-RADS classification with CCTA

D. Giganti, V. Kasivisvanathan, S. Punwani, M. Emberton, C. Allen, C. M. Moore. Precision Study Group Collaborators; London/UK
RPS 1103-5 14:34
NETosis and cardiovascular disease in a cohort of patients with acute chest pain: correlations between coronary CT angiography and laboratory results
M. Fusaro1, M. Rattazzi2, G. Tescari1, C. Bortolanza1, M. Tiepolo1, C. Nardin1, L. Tonon1, G. Morana1; 1Treviso/IT, 2Padua/IT

RPS 1103-6 14:40
Comparison of pericoronary fat attenuation index in patients with and without plaque on CCTA by plaque type and stenosis severity
B. Ma1, M. van Assen1, D. Ties1, G. J. Pelgrim, G. Sidorenkov1, P. M. van Ooijen, P. van der Harst, R. van Dijk, R. Vliegenthart1; Groningen/NL

RPS 1103-7 14:46
FFR-CT in the evaluation of acute chest pain: concepts and first experiences
R. R. Bayer1, A. M. Fischer1, S. S. Martin1, C. Tesche1, A. Varga-Szemes1, U. J. Schoepf1; 1Charleston, SC/US, 2Frankfurt am Main/DE, 3Munich/DE

RPS 1103-8 14:52
Comparative-effectiveness analysis of coronary CTA in patients with stable chest pain
X. Wu1, A. Malhotra2; 1New Haven, CT/US, 2Stamford, CT/US

RPS 1103-9 14:58
Routine early postoperative CT imaging after CABG surgery: clinical value and unexpected findings
M. G. Karolyi1, T. Gloor1, M. O. Schmiady1, H. Alkadhi1; Zurich/CH

RPS 1103-10 15:04
CAD-RADS in the era of FFRCT: an observational study in an acute chest pain population
A. F. Abad1a, D. Giovagnoli1a, U. J. Schoepf1a, R. R. Bayer1a, R. Steinbach2a, M. van Assen2a, A. Varga-Szemes2a, S. S. Martin2a, U. J. Schoepf1; 1Charleston, SC/US, 2Groningen/NL, 3Frankfurt am Main/DE

RPS 1103-11 15:10
Effect of calcification on diagnostic performance of computational fluid dynamic based FFR-CT identifying ischemia-specific lesions in patients with suspected CAD: a preliminary study from China
N. Zhao1, Y. Gao1, B. Lv1; Beijing, CN

RPS 1103-12 15:16
Prognostic value of coronary CT angiography-derived plaque features and clinical parameter on adverse cardiac outcome using support vector machine learning
C. Tesche1, B. Hedels1, F. Straube1, S. Hartl1, B. Brück1, M. J. Bauer1, U. J. Schoepf1, E. Hoffmann1, U. H. Ebersberger1; 1Charleston, SC/US, 2Frankfurt am Main/DE

RPS 1103-13 15:22
Prognostic value of cCTA derived morphological and functional quantitative plaque markers using semi-automated plaque software
D. Overhoff1, S. Baumann1, F. Kaeder1, U. J. Schoepf1, S. O. Schönberg1, M. Borggreve1, I. Akinti1, D. Lossnitzer1, S. Janssen1; 1Mannheim/DE, 2Charleston, SC/US

RPS 1117-7 14:40
Identification of CVA and TIA at the emergency department triage: developing a prediction machine learning model
E. Druskin1, E. Zimlichman1, S. Soffer1, S. Bader1, Y. Barashi1, E. Konen1, E. Klang1; Ramat Gan/IL, 2Tel Aviv/IL

RPS 1117-8 14:46
Identification of lobulated projections on CT based on their shape, caliber measurements and dual-energy material differentiation
D. Gascho1, N. Zoelch1, B. Teunissen3, M. Scheerder3, M. Brink2; Zurich/CH, 2Basel/CH

RPS 1117-9 14:52
The accuracy of US and CT in diagnosing appendicitis with consideration of indeterminate examinations according to STARD guidelines
C. Crocker1, M. A. Akli1, M. Abdoelle1, M. Kamali1, A. Costa1; Halifax/CA, 2Makka/SA

RPS 1117-10 14:58
Thin slices and maximum intensity projection reconstructions increase sensitivity to hyperdense artery sign in acute ischemic stroke
J. Rosskopf1, B. L. Schmitz, T. Gräter1; Ulm/DE

RPS 1117-11 15:04
Diffusion-weighted imaging can add value to emergency MRI for the diagnosis of acute appendicitis among pregnant women
Y.-C. Wong1, L.-J. Wang1, C.-H. Wu2; Taoyuan/TW, 2New Taipei City/TW

RPS 1117-12 15:10
Diagnostic accuracy of multidetector CT in primary acute mesenteric ischemia
M. Lanzetta1, G. Addeo1, M. C. Bonini1, G. Grazzini1, S. Pradella1, V. Miele1; Florence/IT, 2Colle Val d’Elisa/IT, 3Rome/IT

RPS 1117-13 15:16
Accuracy of Single-Pass Split-Bolus CT for detecting vascular injury in the spleen: a retrospective study in 111 patients with blunt splenic trauma
F. H. Berger1, M. Edwards1, T. Tromp1, D. R. Kool1, L. F. M. Beenen1, B. Teunissen1, M. Scheerder1, M. Brink2; Toronto, ON/CA, 2Nijmegen/NL, 3Amsterdam/NL

Emergency Imaging

RPS 1117 Abdomen and brain
Moderators:
A. Bianco Barrio; Murcia/ES
N.N.

RPS 1117-K 14:00
Keynote lecture
I. Arkhipov1; Moscow/RU

RPS 1117-6 14:10
Variability in non-contrast head CT image quality in Ireland: opportunities for parameter optimisation and standardisation to improve stroke care
J. Hynes1, D. Caldwell, P. Kenny, P. J. Macmahon; Dublin/IE
RPS 1107
Prostate lesions scoring and treatment
Moderators: M. De Rooij; Nijmegen/NL
M. Secil; Izmir/TR

RPS 1107-1 14:00
DWI and PRECISE criteria in men on active surveillance for prostate cancer: a multicentre preliminary experience of different ADC calculations
F. Giganti2, M. Pecoraro2, D. Fierro1, R. Campa2, C. Allen1, M. Emberton1, C. Catalano1, C. M. Moore1, V. Panebianco1; London/UK, 1Rome/IT

RPS 1107-2 14:06
Interobserver reproducibility of the PRECISE scoring system for prostate MRI on active surveillance: results from two-centre pilot study
F. Giganti1, M. Pecoraro2, A. Stabile1, V. Stavринides1, S. Cipollari2, M. Emberton1, C. Catalano1, C. M. Moore1, V. Panebianco1; London/UK, 1Rome/IT, 2Rome/IT

RPS 1107-3 14:12
Clinical and economic impact of transperineal laser ablation (TPLA) in the treatment of benign prostatic hyperplasia (BPH)
G. Manenti1, T. Perretta, S. Marsico, F. P. Ryan, D. D’amato, A. Turbanti, E. Finazzi Agrò, R. Floris; Rome/IT

RPS 1107-4 14:18
Intra-reader comparison of PI-RADS 2 versus PI-RADS 2.1 in a large cohort: stable cancer detection performance with few changes in scoring
M. Ruddolf1, A. Baur1, M. Haas1, P. Asbach1, S. Mahjoub1, H. Cash1, B. Hammi1, T. Penzkofer1; 1Berlin/DE, 2Cologne/DE

RPS 1107-5 14:24
Do we practice what we preach? A systematic review of compliance to PI-RADSv2 acquisition protocol
A. Ponsiglione1, R. Cuocolo1, A. Stanzione1, F. Verde1, A. Ventimiglia2, V. Romeo1, M. Petretta3, M. Imbriaco1; 1Naples/IT, 2Castellamare di Stabia/IT, 3Avellino/IT

RPS 1107-6 14:30
MRI-derived PRECISE scores for predicting radiological progression in prostate cancer patients on active surveillance
I. Caglì1, N. Sushentsév, E. Sala, N. Shaída, B. Koo, A. Warren, C. Kastner, V. Gnanapragasam, T. Barrett; Cambridge/UK

RPS 1107-7 14:36
Inter-reader agreement in multiparametric MRI reporting using prostate imaging reporting and data system version 2.1
G. Brembilla1, P. Dell’oglio1, A. Stabile1, A. Damascelli1, L. Brunetti1, G. Cristel1, A. Esposito1, F. Montorsi1, F. de Cobelli1; Milan/IT

RPS 1107-8 14:42
Diagnostic value of combining PI-RADS v2.1 with prostate-specific antigen density in prostate cancer
K. Wei1, J. Zou1, S. Zhong1, G. Hu1, J. Xu1; Shenzhen/CN

RPS 1107-9 14:48
Safe reduction of MRI-targeted biopsies in men with PI-RADSv2 category 3 lesions: cross-institutional validation of a multivariate risk model based on clinical parameters
D. Denifflé1, K. Namdar1, I. Gjirotti1, E. Salinas-Miranda1, A. Tol1, N. Perlis1, A. Finelli1, F. Khalvatí1, M. A. Haider1; 1Toronto/CA, 2Boston/US

RPS 1107-10 14:54
MpMRI-targeted prostate biopsy only: does systematic biopsy belong in the past?
M. Klingebiel1, T. Ullrich, C. Arsov, M. Quentin, D. Mally, P. Albers, G. Antoch1, L. Schimmöller; Düsseldorf/DE

RPS 1107-11 15:00
Preoperative MRI risk estimation and predictors of positive surgical margins in patients with prostate cancer undergoing radical prostatectomy
L. Schimmöller1, M. Quentin1, T. Ullrich1, S. Dörfler1, C. Arsov, P. Albers1, G. Antoch1; Düsseldorf/DE

RPS 1107-12 15:06
Feasibility of a 2nd generation MR-compatible manipulator for transrectal focal laser ablation in patients with prostate cancer
S. P. Hoogendoorn1, J. G. R. Bomers1, J. P. M. Sedelaar1, J. J. Futterer1; Nijmegen/NL

RPS 1107-13 15:12
Multiparametric MRI and targeted prostate biopsy: a comparison between In-Bore and TRUS-MRI fusion techniques performed by the same operator
S. Cipollari1, R. Campa1, M. Pecoraro1, V. Salvo1, M. Del Monte1, C. Catalano2, V. Panebianco2; Rome/IT

RPS 1107-14 15:18
MRI-directed high frequency (29MHz) TRUS-guided biopsies: an alternative to TRUS-MRI image fusion?
F. Cornué1, A. Lefèvre1, P. Camparo1, P. Soyer1, M. Barral1; 1Paris/FR, 2Amiens/FR

RPS 1107-15 15:24
Soracteel® transperineal laser ablation (TPLA) for the treatment of benign prostatic hyperplasia: results at 6 and 12 months
G. Patelli1, G. Mauri1, G. Iapicca1, G. Manenti1, T. Perretta1, C. Ryan1, R. Espósito1, C. M. Pacella1; Serrate/IT, 1Milan/IT, 2Avellino/IT, 3Rome/IT, 4Cosenza/IT, 5Albano Laziale Roma/IT

14:00 - 15:30 Room K

Neuro

RPS 1111
Neurovascular diseases
Moderators: F. Bozetti; Parma/IT

RPS 1111-1 14:00
Associations between cardiovascular function, brain volumes, and white matter hyperintensities
M. van Hout1, J. Dekkers, J. J. M. Westenberg, A. Scholte1, H. J. Lamb; Leiden/NL

RPS 1111-2 14:06
Vascular hyperintensities on a post-contrast 3D fast-spin-echo T1-weighted sequence: a sign of poor collateral pathways in sickle-cell disease cerebral vasculopathy?
C. Y. Provost1, W. Ben Hassën1, J. Benzakoun1, L. Legrand1, D. Calvet1, P. Bartolucci1, O. Naggra1, C. Oppenheimer1, M. Edjlali-Goujon1; 1Paris/FR, 2Cetetil/FR

RPS 1111-3 14:12
White matter lesion volume in subjects with prediabetes, subjects with diabetes, and normoglycemic control subjects
S. Grosu1, R. Lorbeer1, F. Bamberg1, C. L. Schlett2, A. Peters1, M. Heier1, S. Rospeslezca1, B. B. Ertl-Wagner1, S. Stöcklein1; Munich/DE, 2Freiburg/DE, 3Neuherberg/DE

RPS 1111-4 14:18
Acute symptomatic lacunar ischaemic stroke as the first presentation of small vessel disease: how common is it?
A. Guarniero1, C. Barbatò1, L. Ullivi1, S. Browning1, D. Werring1, R. Simister1, R. Jager1; 1Rome/IT, 2Florence/IT, 3London/UK

RPS 1111-5 14:24
Dynamic computed tomography angiography (dCTA) for determining infarct size and colaterals in order to predict the clinical outcome after recanalisation of acute ischaemic stroke
E. Puglielli1, P. Pierluigi, A. Bernardini, S. Roiati, N. Caputo; Teramo/IT
Abdominal Viscera

RPS 1101

Advances in CT techniques

Moderators:
N. Grosse Hokamp; Cologne/DE
T. Leiner; Utrecht/NL

RPS 1101-1 14:00
Comparison study between published contrast administration protocols for enhanced liver CT examination in adults
F. Zanca1, B. Rizk1, D. Racine2, P. Pujadas2, D. Fournier2, H. Brat3, Leuven/BE, Villars-sur-Glâne/CH, Lausanne/CH, Paris/FR, Sion/CH

RPS 1101-2 14:06
Standardisation of dual-energy CT iodine uptake of the abdomen: defining reference values in a big data cohort
J. Yel1, C. Booz1, S. S. Martin1, L. Lenga1, B. Kaltenbach1, T. J. Vogl2, M. H. Albrecht1, Frankfurt am Main/DE

RPS 1101-3 14:12
Comparison of established dual-energy CT reconstructions with a novel virtual non-calcium based method to detect radiolucent gallstones
A. Almutairi, A. Alzahrani, A. Alosaimi, F. Azzumeea, M. F. A. Mohammed1, Riyadh/SA

RPS 1101-4 14:18
Diagnose negative gallstones with dual-layerspectral detector CT
J. Lu1, X. Lu2, Tianjin/CN, Shanghai/CH

RPS 1101-5 14:24
Contrast media reduction in abdominal dual-energy CT: low keV virtual monoenergetic images restore diagnostic assessment and image quality
S. Lennartz1, N. Grosse Hokamp1, C. Zäskel1, D. Zopfs2, G. Bratke1, A. Glauener1, D. Maintz1, D.-H. Chang1, T. Hickethier1, Cologne/DE, Heidelberg/DE

RPS 1101-6 14:30
Optimised virtual monoenergetic images for liver fibrosis staging using dual-layer spectral CT
R. Li, W. Yang, Y. Yang, F. Yan, Q. Han, X. Chen; Shanghai/CH

RPS 1101-7 14:36
Virtual monoenergetic images for diagnosing small hepatocellular carcinoma using dual-layer spectral CT: optimal energy level and added value
Z. Fu1, C. Xu2, D. Li1, Y. Tian1, X. Chen1, D. Du1; Nanjing/CN, Shanghai/CH

RPS 1101-9 14:42
Iodine accumulation in the liver in patients treated with amiodarone can be unmasked using material decomposition from multiphase spectral-detector CT
K. R. Laukamp1, H. Hashmi1, N. Grosse Hokamp2, A. Gupta3, S. Lennartz1, P. F. Graser1, T. Persigehl1, R. Gilkeson1, N. Ramaiya2, Cologne/DE, Cleveland, OH/US

RPS 1101-10 14:48
Metal implants on abdominal CT: can split-filter dual-energy CT provide additional value over iterative metal artefact reduction?
H. M. Wichtmann1, S. Yang1, K. R. Laukamp2, S. Manneck1, K. Appelt1, D. Boll1, T. Heye1, M. Benz2, M. M. Obmann1; Basel/CH, Cologne/DE

RPS 1101-11 14:54
Improved image quality in abdominal CT: promising results from a novel deep learning image reconstruction (DLIR) technique
T. Hijdefast1, A. Schulz2, G. Pace1, H. K. Andersen1, A. C. T. Martinsen1

RPS 1101-12 15:00
Optimisation of abdominal CT using a new iterative reconstruction technique
G. Pace1, M. Afadz2, A. Schulz3, T. M. Aalokken1, A. C. T. Martinsen1, A. Giognavoni1; Ancona/IT, Oslo/NO

RPS 1101-13 15:06
A randomised controlled trial proposing a straight forward 10-to-10 rule for individualised liver imaging based on tube voltage and body weight
B. Martens1, J. E. Wildberger1, B. M. F. Hendriks2, J. M. van Kuijk2, S. M. van Kuijk1, S. M. van Kuijk1; Maastricht/NL

RPS 1101-14 15:12
3D-segmentation of visceral and subcutaneous adipose tissue on CT: influence of contrast-medium and -phase
R. F. Gohmann1, P. Seitz1, B. Temiz1, S. Gottschling1, C. D. Krieghoff1, C. Lücke1, M. Guterfert1, Leipzig/DE

RPS 1101-15 15:18
Dynamic segmental CT liver perfusion data analysis after portosystemic shunt procedure in patients with liver cirrhosis
N. Diurraeva1, F. Nazirov1, A. Badabjanov1, A. Amirkhamazaev1, U. R. Salimov1, N. Vakhidova1, A. Sultanov1; Tashkent/UZ, Ghandy/AF

14:00 - 15:30 Room M 3
RPS 1110

Knee

Moderators:
Ž. Snoj; Libljana/SI
P. Van Dyck; Edegem/BE

RPS 1110-K

14:00

Keynote Lecture
S. Cappabianca: Naples/IT

RPS 1110-1

14:10

The importance of being minocycline chlorhydrate. Sclerosant acting antibiotic versus corticosteroids to treat symptomatic Baker cysts: a prospective study
I. Percivalle1, A. Paladini1, M. Spinetta1, G. Naik, M. Nevitt2, T. M. M. Link2

RPS 1110-2

14:16

The correlation between the anatomical variations of the knee joint and pat-fad pathologies and patellar tilt
A. H. Cilengir1, Y. K. Cetinoglu1, M. F. Gelal1, B. Dirim Mete, A. L. Falkowski1, J. A. Jacobson1, M. Cresswell2, A. Bedi1, V. Kalia1

RPS 1110-3

14:22

The assessment of medial meniscus extrusion on ultrasound using MRI as a reference standard
A. L. Falkowski1, J. A. Jacobson1, M. Cresswell2, A. Bedi1, V. Kalia1, A. Kharat1, A. Ahmad2, J. Tandale2, R. Lokwani2, S. Kasliwal2, G. Naik2, K. Saoji2, S. Kondal2, A. Pant3, K. Saoji2, S. Kondal2, A. Pant3

RPS 1110-4

14:28

Evaluation of medial meniscal extrusion using weight-bearing ultrasound: correlation with MRI and meniscal tears
A. L. Falkowski1, J. A. Jacobson1, M. Cresswell2, A. Bedi1, V. Kalia1, Ann Arbor, MI/US, ‘Cairo’, Cairo/EG, ‘Giza’/EG

RPS 1110-5

14:34

Agreement between cartilage morphology on MRI and weight-bearing CT and radiographs respectively for visualising patellofemoral OA features in the MOST study
N. Segal1, B. Everist1, K. Brown1, H. J. Park, S. Ham, San Francisco, CA/US

RPS 1110-6

14:40

The efficacy of the anterior translation of the tibia in anterior cruciate ligament mucoid degeneration: an observational study
A. I. Saad1, D. Waldron, A. Iqbal, S. Evans, S. L. James, R. Botchu, Birmingham/UK

RPS 1110-7

14:46

Attachment type of the posterior meniscofemoral ligament and clinical significance

RPS 1110-8

14:52

Chondrocalcinosis is associated with increased knee joint degeneration over 4 years: data from the osteoarthritis initiative
S. Foreman1, A. S. Gersing1, C. von Schacky1, G. Joseph2, J. Neumann1, N. E. Lane1, C. McCulloch2, D. Negroni1, M. Cernigliaro1, A. Carriero1, G. Guzzardi1, Novara/IT, ‘Naples/IT

RPS 1110-9

14:58

Quantitative analysis of knee joint cartilage by using T2* and T1rho relaxation times in professional female volleyball players and a healthy control group
K.-J. J. Maas1, F. O. Henes2, M. Regier2, M. L. Warncke1, K.-J. J. Maas1, K.-J. J. Maas1

RPS 1110-10

15:04

Assessment of patellofemoral maltracking using 3.0T kinematic MRI
K.-J. J. Maas1, J. Frings, M. L. Warncke, T. Dust, K.-H. Frosch, G. Adam, F. O. Henes, Hamburg/DE

RPS 1110-11

15:10

Distal femoral cortical irregularity (DFCI): increased prevalence in competitive young alpine skiers
C. Stern, J. Gailey, S. Fröhlich, L. Peterhans, J. Spörr, R. Sutter, Zurich/CH

RPS 1110-12

15:16

Volume and quantitative dynamic contrast-enhanced MR blood perfusion parameters of the infrapatellar fat-pad and their relationship with oedema and effusion in patients with patellofemoral pain
B. van der Heijden1, B. A. de Vries, D. Poot, M. van Middelkoop, G. P. Krestin, E. Oei, Rotterdam/NL

RPS 1110-13

15:22

Collective intelligence has increased diagnostic performance compared to expert radiologists in the evaluation of knee MRI
A. Campagner, C. Messina, D. Albano, S. Gitto, F. Cabitza, L. M. M. Sconfienza, Milan/IT

16:00 - 17:30

Coffee & Talk 2

Artificial Intelligence and Machine Learning

RPS 1205

Artificial intelligence and machine learning for x-ray imaging

Moderators:
L. Corneliussen, Groningen/NL
Y. Kovalenko, Kiev/UA

RPS 1205-1

16:00

Are pixel-level annotations necessary? Evaluation of their importance in detecting abnormalities in chest x-rays

RPS 1205-2

16:06

Sensitivity to user input in deep learning-based vertebral segmentation from lateral cervical spine x-rays

RPS 1205-3

16:12

Is a deep learning algorithm equivalent to the radiologist in fracture detection on conventional x-rays?
G. H. Reichert1, E. Zeribb-Atallah1, B. A. Naipenau1, A. Altar1, M. Fontaine1, R. Radjabaly1, A. Bellamine1, N. Javaud1, N. Siauve1, ‘Colombes’, FR, ‘Paris’, FR

RPS 1205-4

16:18

Adapting state-of-the-art deep learning detectors for diagnosing bone lesions in musculoskeletal x-rays

RPS 1205-5

16:24

The effect of hard attention on abnormality detection in chest x-rays

RPS 1205-6

16:30

Artificial intelligence in standard radiology: automatic x-ray diagnostic algorithm
M. H. Bentas, F. Birsaateanu, S. Dunariuntu, S. Iarca, B. Bercean, C. Avramescu, A. Tenescu, Timisoara/RO

RPS 1205-7

16:36

Cascading model architecture of convoluted neural networks to improve the performance of pathology detection in digital chest x-rays
A. Kharat1, A. Ahmad1, J. Tandale1, R. Lokwani2, S. Kasliwal2, G. Naik2, K. Saoji2, S. Kondal2, A. Pant3, K. Saoji2, S. Kondal2, A. Pant3, ‘Pune’, IN

RPS 1205-8

16:42

Deep learning-based architecture for detection of tuberculosis in digital chest radiography: our experience in the Indian scenario
A. Kharat1, A. Ahmad1, R. Lokwani2, G. Naik2, J. Tandale1, K. Saoji2, A. Jaju2, A. Patil2, A. Pant3, ‘Pune’, IN
RPS 1205-10 16:48  
Breast cancer screening with denoised ultra-low-dose mammography  
M. Sklar-Levy1, M. Green1, E. Koen1, N. Kiryat1, A. Mayer1, Ramat Gan/IL,  
2Tel Aviv/IL

RPS 1205-11 16:54  
Development and performance comparison of multi-task deep learning approaches for the severity assessment of radiographic hip osteoarthritis features  
C. von Schacky1, J. H. Sohn2, F. Liu3, S. C. Foreman1, E. Ozhinsky1,  
P. M. Jungmann1, M. Nevit1, T. M. M. Link1, V. Peda1, Munich/DE,  
2Baltimore/US, 3San Francisco, CA/US, 4Freiburg/DE

RPS 1205-12 17:00  
Defending against adversarial attacks in the detection of pneumothoraces from chest radiographs: ensuring robustness in clinical AI applications  
D. Kügler1, A. M. Bucher1, A. Distergoft2, A. Rajkarnikar3, M. Uecker3,  
P. D. A. Kuijper1, T. J. Vogl1, D. A. Mukhopadhyay1, 4Bonn/DE,  
5Frankfurt am Main/DE, 6Darmstadt/DE

RPS 1205-13 17:06  
On the robustness of a deep learning-based algorithm for detecting abnormalities in chest radiographs across different devices and view positions: a retrospective case-control study  
S. Na, M. Kim, J. Park, C. M. Park, E. J. Hwang, S. Park; Seoul/KR

RPS 1205-14 17:12  
Clinical validation of a deep learning-based bone age software in healthy Korean children  
W. W.-I. Lea, S.-J. Hong, H.-K. Nam, H. S. Yong, J. Jeong, E. Noh; Seoul/KR

MyT3 12  Radiographers

MyT3 12-1 16:00  
Survey of radiologists’, radiology residents’, and radiographers’ knowledge regarding contrast materials and management of associated adverse reactions  
F. Khan, M. Samad, G. Wahid; Peshawar/PAK

MyT3 12-2 16:04  
An experimental approach to the development of a 3D printed model of the hand and wrist for use in undergraduate radiography teaching  
L. Kennedy; Waterford/IE

MyT3 12-3 16:08  
Estimation of pituitary gland volume and its correlation with age and gender: a magnetic resonance study  
T. D. C. Cabrita1, A. F. Abrantes1, L. P. V. Ribeiro1, S. Rodrigues1,  
R. C. M. C. R. Gaspar3, R. P. P. Almeida1, K. B. Azevedo1, 4Faro/PT,  
5Parchal/PT, *Coimbra/PT

MyT3 12-4 16:12  
Radiographer’s communication skills in private imaging facilities  
A. C. M. Gonçalves1, S. Rodrigues1, L. P. V. Ribeiro1, S. Rodrigues1,  
A. F. Abrantes1, R. P. P. Almeida1, O. Lesyuk1, B. Vicente1,  
*Avaira/PT, 1Faro/PT, 2Parchal/PT, 3São Brás de Alportel/PT, 4Olhão/PT

MyT3 12-5 16:16  
Ultrasound evaluation of abdominal muscles in asymptomatic and patients with chronic low back pain: the role of a radiographer  
B. Vicente1, A. F. Abrantes1, L. P. V. Ribeiro1, S. Rodrigues1, J. Pinheiro1,  
M. V. C. Reis1, R. P. P. Almeida1, 2Olhão/PT, 3Faro/PT, 4Parchal/PT,  
5São Brás De Alportel/PT

MyT3 12-6 16:20  
Sentinel lymphatic nodes scintigraphy in patients with vulvar cancer  
E. Zykov, A. Iljin, A. Meldo, G. Bozhukhin, G. Lungu, V. M. Moiseenko,  
S. Maksimov, K. Shelekhova; St. Petersburg/RU

MyT3 12-7 16:24  
An investigation of post-registration PET/CT radiography training in Ireland  
R. E. Whelan, K. Curran, L. A. Rainford; Dublin/IE

MyT3 12-8 16:28  
Has the radiographer practice changed in the use of anti-scatter grid with the introduction of digital detectors: a scoping review  
C. Camppeau; Lausanne/CH

MyT3 12-9 16:32  
Nutritional support in cancer patients: radiographers’ perceptions  
A. V. Dimitrova, A. Jones, G. van Dijk; Msida/MT

MyT3 12-10 16:36  
SAFMEDS to improve medical students and trainees accuracy in interpreting chest radiographs: a pilot study  
K. Dunne, D. Byrne, S. Lydon, P. McCarthy, C. Madden; Galway/IE

MyT3 12-11 16:40  
Evaluation of haemodynamic changes in the middle cerebral artery in smokers: an ultrasonography study  
M. D. B. Brazuna1, L. P. V. Ribeiro1, S. Rodrigues1, A. F. Abrantes1,  
R. P. P. Almeida1, M. V. C. Reis1, K. B. Azevedo1; 1Faro/PT, 2Parchal/PT

MyT3 12-12 16:48  
Ultrasound measures of abdominal aortic caliber and quadricip femoris muscle thickness: influence of physical activity and body mass index  
H. S. Ponte1, L. P. V. Ribeiro2, S. Rodrigues1, A. F. Abrantes1,  
A. D. M. Ribeiro1, R. P. P. Almeida1, M. V. C. Reis1, T. C. P. L. Guerreiro1,  
*Faro/PT, 2Parchal/PT, 3Portimão/PT, 4Santiago Do Cacém/PT

MyT3 12-13 16:52  
Radiographers in cath-lab: new operating procedures to improve quality assurance and patient safety  
F. Aragona1, E. Stefani1, M. Coccato1, M. Centenaro1, S. Cuman1,  
*Treviso/IT, 2Conegliano/IT, 3Varese/IT

MyT3 12-14 16:56  
The environment preventing female radiological technologists from improving their career prospects: filling the duration of their pregnancy and child-rearing  
T. Nakamura1, S. Suzuki1, K. Kato1, S. Kamiya4, S. Asegawa1; 1Toyoake/JP,  
2Kanagawa/JP, 3Kagawa/JP

MyT3 12-15 17:00  
Development of radiographer scheduling system considering skills and the duration of their pregnancy and child-rearing  
K. Dunne, D. Byrne, S. Lydon, P. McCarthy, C. Madden; Galway/IE

MyT3 12-16 17:04  
The impact of talking to “experts by experience” on students’ empathy scores  
G. Harrison1, A. Harris; London/UK

MyT3 12-17 17:10  
Using a standardised patient to authentically replicate the clinical experience during a trauma simulation for third-year radiological technology students in a Canadian undergraduate programme  
S. Lea, R. Macleod; Halifax, NS/CA

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8:00 - 10:00 Room B

Breast

RPS 1302 Imaging-guided breast biopsy innovations

Moderators: T. Sella; Jerusalem/IL
N.N.

RPS 1302-1 08:30
Shear-wave elastography-guided core-needle biopsy for the determination of breast cancer molecular subtypes

RPS 1302-2 09:36
Ultrasound-guided tattooing of axillary lymph nodes in patients prior to neoadjuvant therapy and the identification of tattooed nodes at the time of surgery
N. Rotbart1, T. Allweis2, T. Menes3, Y. Rapsön4, H. Cerník5, I. Bokov6, G. Golan7, O. Givon Madhala1, A. Grubstein1; Petah Tikva/IL, Rehovot/IL, Tel Aviv/IL

RPS 1302-3 08:42
Stereotactic 9-gauge vacuum-assisted breast biopsy: how many specimens do we need?

RPS 1302-4 09:48
Failure of stereotactic core-needle biopsy in women recalled for suspicious microcalcifications at screening mammography: frequency, causes, and final outcome in an observational follow-up study
J. L. R. Lameijer1, L. Duijm2; Toronto, ON/CA, 2Toronto, ON/CA

RPS 1302-5 09:54
Can we predict upgrade on surgical pathology?
Y. Amitai1, T. Menes2, A. M. Scaranelo1, S. Kulkarni1, S. Ghai1, R. Fleming1, V. Freitas1; Toronto, ON/CA, 2Toronto, ON/CA

RPS 1302-6 09:00
Tomosynthesis-guided vacuum-assisted biopsy for mammographic low-contrast, non-calcific lesions: technical and pathologic results
C. Papiol1, K. Jerman1, A. Linda2, R. Girometti2, C. Zuiani2; Gorizia/IT, Udine/IT

RPS 1302-7 09:06
Value of targeted fusion US with virtual mammographic navigation in B3 lesions
V. E. Gazhunova, M. Efremova, E. Bachurina, T. Kuleshova, H. Khlustina; Moscow/RU

RPS 1302-8 09:12
Calcified lesions with a low risk of malignancy on mammography and uncertain malignant potential (B3) detected at stereotactic vacuum-assisted breast biopsy
Z. C. Milosevich, V. Urban, K. Obradovic, N. Adzic, M. Nadrljanski; Belgrade/RS

RPS 1302-9 09:18
Comparison of calcification retrieval performance between upright tomosynthesis-guided and prone stereotactic vacuum-assisted breast biopsy
T. Uematsu; Shizuoka/JP

RPS 1302-10 09:24
The value of contrast-enhanced ultrasound in breast cancer biopsy
Y. Zhu, Y. Chen, J. Jiang; Shanghai/CN

RPS 1302-11 09:30
Vacuum-assisted excision (VAE) as an alternative to open surgical excision for B3 lesions in a screening clinical unit
I. Allajbeu, K. Taylor, P. L. Moyle, C. Breast Unit, F. J. Gilbert; Cambridge/UK

8:00 - 10:00 Room F2

Genitourinary

RPS 1307 Prostate MRI for differential diagnosis

Moderators: J. Belfield; Liverpool/UK
M. T. El-Diasty; Jeddah/SA

RPS 1307-1 08:30
Blood oxygenation level-dependent MR imaging for the differentiation of prostate cancer with benign tissue: a preliminary experience
Y. Kim, C. Kim; Seoul/KR

RPS 1307-3 08:36
Utility of a quantitative ADC/DCE model in dynamic contrast enhancement (DCE)-positive, upgraded PI-RADS-3-to-4 lesions
A. A. Tavakoli1, P. Badura1, T. Tubtawee1, V. Schütz1, D. Tichy1, A. Stenzinger1, M. Hohenfellner1, H.-P. Schlemmer1, D. Bonekamp1; Heidelberg/DE, 2Hirschberg/DE

RPS 1307-4 08:42
Quantifying age-related differences in diffusion tensor imaging biomarkers for the male urethral sphincter complex of prospective prostate cancer patients
A. S. C. Verde, J. Santinha, A. Gaivao, N. Loucao, J. Fonseca, C. Matos, N. Papaniokolaou; Lisbon/PT

RPS 1307-5 08:48
Risk stratification of patients with prostate cancer: promising results with high b-value DWI radiomic features
M. Mottola1, F. Ferroni2, D. Barone2, G. Gavelli2, A. Bevilacqua1; 1Bologna/IT, 2Meldola/IT

RPS 1307-6 08:54
Why a b-value of 1,400 s/mm2 or higher is optimal for evaluating prostate index lesions on synthetic diffusion-weighted imaging
S. Y. Cha, S. Y. Park; Seoul/KR

RPS 1307-7 09:00
Accelerated, high-resolution quantitative T2 mapping at 3T for the detection of prostate cancer
A. M. Bucher1, A. Polk1, R. Strecker2, B. Kaltenbach3, D. T. Hilbert2, E. Weiland1, T. J. Vogl1, B. Bodelle1; 1Frankfurt am Main/DE, 2Erlangen/DE

RPS 1307-8 09:06
Advanced postprocessing in diffusion-weighted imaging of the prostate: impact on image quality and lesion detectability
D. Zinsser1, J. Weiß1, M. Esser1, M. Nickel2, A. E. E. Othman1; 1Erlangen/DE, 2Dresden/DE

RPS 1307-9 09:12
Updated PI-RADS 2.1: does it affect the diagnostic outcome of multiparametric prostate MRI?
RPS 1307-10 09:18
Comparison of abbreviated MRI protocols for the detection of prostate cancer in a cohort of radical prostatectomy patients: a multi-reader study
F. Bonatto, G. Giannarini, L. Di Mico, L. Cereser, G. Como, C. Zuiani, R. Girometti; Udine/IT

RPS 1307-11 09:24
Accuracy of a double-reading strategy using abbreviated prostate MRI in patients with prostate cancer candidate to active surveillance
S. Maresca, C. Zuiani, L. Cereser, G. Como, M. Lorenzon, R. Girometti; Udine/IT

RPS 1307-12 09:30
In vivo tissue characterisation of prostate cancer: an extreme gradient boosting algorithm to predict Gleason scores in multiparametric MRIs of the prostate

RPS 1307-13 09:36
Follow-up of patients within PI-RADS category 3: analysis of an advisable control interval
S. Dörfler, L. Schimmoller, M. Quentin, T. Ulrich, C. Arsov, P. Albers, G. Antoch; Düsseldorf/DE

RPS 1307-14 09:42
Fractal analysis of perfusion MRI for predicting prostate cancer grading: validation of previously established cutoffs
F. Michallek, H. Huisman, B. Hammi, M. Dewey; Berlin/DE, Nijmegen/NL

RPS 1307-15 09:48
mpMRI detection of suspected prostate cancer with a negative biopsy: can radiomic features help radiologists?
A. Bevilacqua, M. Mottola, F. Ferroni, G. Gavelli; Bologna/IT, Meldola/IT

08:30 - 10:00 Room Y

MyT3 13
Abdominal and Gastrointestinal
Moderators:
A. Torregrosa Andres; Valencia/ES
M. G. Pezzullo; Brussels/BE

MyT3 13-1 08:30
Comparison of CT findings in successful and unsuccessful non-operative management of acute appendicitis
C. Civan Kuş, D. Tüney, C. Yegen, T. Demirbas, C. Ilgın; Istanbul/TR

MyT3 13-2 08:34
Dynamic contrast-enhanced MR imaging of rectal cancer using a golden-angle radial stack-of stars VIBE sequence: pharmacokinetic analysis and associations with different histopathological findings
Y. Li, Z. Li, C. Xia; Chengdu/CN

MyT3 13-3 08:38
Computed tomography volumetric analysis of rate and factors affecting liver regeneration in liver transplant recipients
A. Jayant, T. B. S. Buxi, K. S. Rawat, P. Singh; New Delhi/IN, Gurgaon/IN

MyT3 13-4 08:42
Can CT findings predict the surgical outcome in patients of adhesive small bowel obstruction: a retrospective cum prospective study
P. Singh, S. S. Ghuman, T. B. S. Buxi, A. Jayant; New Delhi/IN, Noida/IN, Gurgaon/IN

MyT3 13-5 08:46
Contrast-enhanced CT-based textural parameters as potential prognostic factors of survival for colorectal cancer patients receiving targeted therapy
H. Xu, H. Liang; Chengdu/CN

MyT3 13-6 08:50
Diagnostic accuracy of ultrasound in the detection of amoebic liver abscess
S. Khan, W. A. Mirza; Karachi/PK

MyT3 13-7 08:54
Contrast-enhanced ultrasonography (CEUS) vs dynamic contrast-enhanced MRI (DCE-MRI) for the characterisation of focal liver lesions: where do we stand?
K. Soood, T. Agarwal, S. Gupta, R. Prasad; New Delhi/IN

MyT3 13-8 08:58
Reproducibility of intravoxel incoherent motion of liver on a 3.0T scanner: free-breathing and respiratory-triggered sequences acquired with different numbers of excitations

MyT3 13-9 09:02
A model based on liver stiffness measured by shear-wave elastography and future liver remnant ratio to predict post-hepatectomy liver failure in patients with hepatocellular carcinoma
H. Long; Guangzhou/CN

MyT3 13-10 09:06
A game-changer for non-transfusion-dependent thalassemia patients: T2* MRI in liver and myocardium iron quantification
G. Nagenthan, P. R. Radhakrishnan, R. J. D. Santosham, B. Jeevanandham; Chennai/IN

MyT3 13-11 09:10
Calculating the cut-off value of the dumping index using the ROC curve to identify Child-Pugh C patients
N. K. Agrawal, A. N. Kamble; Mohali/IN, New Delhi/IN

MyT3 13-12 09:14
Is visual estimation of liver lobe proportion sufficient to decide on the adequate distribution of the chemotherapeutic agent in uveal melanoma patients undergoing hepatic artery infusion?

MyT3 13-13 09:18
The effect of glycemic-control on renal triglyceride content assessed by proton MR spectroscopy in patients with type 2 diabetes mellitus

MyT3 13-14 09:22
Improvement of ultrasonographic differential diagnosis of gastric lesions: the value of contrast-enhanced sonography with gastric distention
T. Li, M. Lu; Chengdu/CN

MyT3 13-15 09:26
Shear-wave elastography method in the diagnosis of acute appendicitis
C. Yıldırım, Ö. Tunçyürek; Aydın/TR, Nicosia/CY

MyT3 13-16 09:30
Comparison of spin-echo echo-planar imaging (SE-EPI), MR elastography and correlation with transient elastography (TE)
J. Theysohn, B. M. Schaarsschmidt; Essen/DE

MyT3 13-17 09:34
CT signs evaluation in predicting the site of gastrointestinal tract perforation: a review of 100 operated patients
S. Ferraro, M. Giannotta, G. Zanirato Rambaldi, F. Dardi, P. E. Orlandi, M. Imbriani; Bologna/IT

MyT3 13-18 09:38
Value of CT enterography for predicting the incidence and short-term surgery in patients with Crohn's fistulising disease in the era of biologics
G. Minyi; Guangzhou/CN
MyT3 13-19 09:42
The role of CT gastric volumetry in sleeve gastrectomy
M. S. T. M. Elfeshawy, A. E. Mohamed, E. Sokker; Cairo/EG

MyT3 13-20 09:46
CT gastroscopy: a convenient tool to evaluate gastric mass lesions
S. Siddharth, P. Narang, D. S. Srivastava, P. Gupta; New Delhi/IN

MyT3 13-21 09:50
Radiologic findings of amputary cancer on contrast-enhanced MRI (CEMRI) with a liver-specific contrast agent: pay attention to the 30-min delayed scan
I. Son, S. Hong, N. Lee, S. Kim; Busan/KR

MyT3 13-22 09:54
MRI-guided microwave ablation of hepatic malignancies: feasibility, efficacy, safety and follow-up
N. Yang; Shanghai/CN

08:30 - 10:00 Room M 1

Imaging Informatics

RPS 1305
Imaging informatics in Europe and beyond
Moderators:
J. Fernandez-Bayo; Sabadell/ES
S. Gatidis; Tübingen/DE

RPS 1305-1 08:30
The current state of knowledge of imaging informatics amongst Spanish radiologists
D. D. Eiroa Gutiérrez1, M. Fdez. Del Castillo Ascaino1, M. Roso Gradaille1, R. Mast Vilaseca1, K. Ramirez Tuca1, V. Pantoja Ortiz2; Barcelona/ES, 1Santa Cruz de Tenerife/ES

RPS 1305-2 08:36
Should we perform all the radiological tests that are requested?
P. Prappa Rivas1, C. Benito Vicente1, L. Garcia Del Salto Lorente1, M. I. Diez Perez de las Vacas1, J. de Miguel Criado2, A. Marco Sanz1; Madrid/ES, 1Coslada/ES

RPS 1305-3 08:42
National diagnostic imaging trends in Spain: 2010-2017
A. Perez Gibres, M. P. Barreda Solana, V. Navarro Aguilar, A. Torregrosa Andres; Valencia/ES

RPS 1305-4 08:48
The effect of changing the method of teaching radiology to interactive clinically-based learning on the achievements of medical students in imaging
U. Wachsman, I. Shelef, Y. Lior, G. Ben-Arie; Beer-Sheva/IL

RPS 1305-5 08:54
Professional social media use is associated with having received advanced scientific training: results from an international survey in 1,041 radiologists and residents
M. Huisman1, E. R. Ranschaert2, W. Parker3, D. Mastrodicasa4, M. Kočí5, 1,041 radiologists and residents

RPS 1305-6 09:00
First peer review experience among a French teleradiology community
M. Schertz3, E. Morau2, E. Sozeau2, M. Cavet1; Paris/FR, 3Montpellier/FR

RPS 1305-7 09:06
Innovation in radiology using a needs-based approach: clinical radiologists' experience
R. A. Bippel, A. El-Zein; Oxford/UK

RPS 1305-8 09:12
Challenges, opportunities, and strategies of global health radiology in low-middle income countries (LMIC): an excerpt review
S. L. Shen1, H. Umdagas1, F. B. Nkubili1, D. Z. Joseph1, M. Z. Ibrahim1, 1Gombe/NG, 2Zaria/NG, 3Maiduguri/NG, 4Kano/NG

RPS 1305-9 09:18
First national teleradiology pilot project in the Saudi Ministry of Health
S. Alshaikh1, A. Aldosari1, H. Alasmari1, M. Almuaqeel1, M. Mutabbi1, G. Alalwani1, A. F. T. Gashgari1; Riyadh/SA, 1Al-Hassa/SA, 1Dammam/SA

RPS 1305-10 09:24
Relative value unit system: a new approach for quantifying radiologists' workloads
S. Gelmez; Istanbul/TR

RPS 1305-11 09:30
Data mining of metrics from a report comparison tool can reveal daytime and shift dependent trends in the quality of residents' reports
J. Vossenich, I. Nesic, J. Cylari, D. Boll, E. M. Merkle, T. Heye; Basel/CH

RPS 1305-12 09:36
MR site assessment using a Power BI-based reporting platform
P. Szatmari, R. Ilting, L. Ref; Budapest/HU

RPS 1305-13 09:42
Value-based workflow in radiology: what to expect from the PACS orchestrator
C. C. C. Quattrocchi, P. D’alesio, G. Carosi, I. Galdino, A. Ricciardi, C. A. Mallo; Rome/IT

RPS 1305-14 09:48
Assessment of the user acceptance of a radiology information system (RIS) and picture archiving and communication system (PACS) at a hospital in Qatar
P. S. Mahajan, A. Sanousi, N. Al Maslamani; Doha/QA

RPS 1305-15 09:54
Problem-specific detailed structured reporting: moving towards intelligent reporting based on musculoskeletal referral guidelines
M. Fatehi1, A. Sami1; Tehran/IR, 1Shiraz/IR

11:15 - 12:30 Room B

Artificial Intelligence and Machine Learning

RPS 1405a
Artificial intelligence and machine learning in the brain
Moderators:
M. De Bruinje; Rotterdam/NL
A. Mazumder; London/UK

RPS 1405a-K 11:15
Keynote lecture
N.N.

RPS 1405a-1 11:25
The added value of molecular genetic group as a prognostic indicator of overall survival and progression-free survival in glioma patients: machine learning based analysis
S. Zhang; Guangzhou/CH

RPS 1405a-2 11:31
Machine learning-based MRI texture analysis for predicting 1p/19q codeletion status of lower-grade gliomas
B. Kocak, E. S. Durmaz, E. Ateş, I. Sel, S. T. Turgut Gunes, O. Korkmaz Kaya, A. Zeynalova, O. Kilckesmez; Istanbul/TR

RPS 1405a-3 11:37
Prediction for the grading of stereotactic biopsy glioma with multi-Atlas machine learning based analysis
W. Rui, H. Pang, Q. Xie, Y. Ren, S. Duan, Y. Zhang, Z. Yao; Shanghai/CH

RPS 1405a-4 11:43
Glial segmentation in sparse label applications: a federated learning solution
S. Niehaus1, L. Lampe1, A. Merola2, G. Mihai2, J. Reinelt2, N. Scherf1, 1Berlin/DE, 2Leipzig/DE, 3Dresden/DE

RPS 1405a-5 11:49
Value-based workflow in radiology: what to expect from the PACS orchestrator
C. C. C. Quattrocchi, P. D’alesio, G. Carosi, I. Galdino, A. Ricciardi, C. A. Mallo; Rome/IT

RPS 1405a-6 11:55
Artificial intelligence and machine learning in the brain
Moderators:
M. De Bruinje; Rotterdam/NL
A. Mazumder; London/UK

RPS 1405a-K 11:15
Keynote lecture
N.N.

RPS 1405a-1 11:25
The added value of molecular genetic group as a prognostic indicator of overall survival and progression-free survival in glioma patients: machine learning based analysis
S. Zhang; Guangzhou/CH
RPS 1405a-5 11:49
Deep learning radiomics algorithm for glioma (DRAG) for predicting survival in gliomas
A. Mahajan, S. Rane, U. Baid, M. Akolkar, S. Talbar, A. Moiyadi, S. Gupta; Mumbai/IN

RPS 1405a-6 11:55
Smart protocol: real-time brain MRI pathology detection by deep learning for online protocol control
A. Pai, B. Low, L. Sorensen, M. Lillholm, M. D. E. B. Dami, R. Lauritzen, R. Kashyape; M. Nielsen; Copenhagen/DK, Nijmegen/NL

RPS 1405a-7 12:01
Classifying brain metastatic disease by an unknown cancer primary organ site using whole-brain clinical MRI data: a 3D convolutional neural network approach

RPS 1405a-8 12:07
Can we predict a brain metastases primary site by using deep learning algorithms, even in small datasets?
Y. Cuskun1, B. Alparslan1, K. Kaplan1, F. Caliskan1, O. Tavas1, E. Dervisoeglul1, H. M. Ertunc1, A. K. Sivrioglu1, Y. Kocaeli/TR, Istanbul/TR

RPS 1405a-9 12:13
Deep convolutional neural network for automated segmentation of brain metastasis trained on clinical data acquired during six years of stereotactic radiosurgery

RPS 1405a-10 12:19
CNN based deep learning enhances 3D FLAIR brain perceived quality, SNR, and resolution at ~30% less scan time

RPS 1405a-11 12:25
Brain metastases in malignant melanoma: fully automated detection and segmentation on MRI using a deep learning model
L. Penttila1, S. Lennartz2, L. Goertz2, F. Thiele2, M. Perkuhn2, J. Borggreve2, L. Caldeira1, K. R. Laukamp1; Cologne/DE, Aachen/DE

11:15 - 12:30 Room C

Breast

RPS 1402a 11:49
Artificial intelligence, radiomics and more: part 2
Moderators:
S. Jeganathan; Perth/AU
H. Sartor; Lund/SE

RPS 1402a-1 11:15
The application of model-adaptive artificial intelligence algorithms in breast ultrasound imaging
A. Abate1, R. Giovanazzi2, C. Di Bella1, S. de Beni1, S. D'onofrio1, M. Cereseto1, G. Guerques2, V. Besocisti1, R. Corso1; Lesmo/IT, Monza/IT, Esaeote/IT, Pavia/IT

RPS 1402a-2 11:21
Classification of benign and malignant breast lesions using ultrasound shear wave elastography features: a non-black-box machine learning approach
A. Angelakis1, H. Sportouche2; Athens/GR, Aix-en-Provence/FR

RPS 1402a-3 11:27
Quantitative analysis of contrast-enhanced ultrasound imaging omics in evaluating the efficacy of adriamycin combined with cetuximab in the treatment of triple-negative breast cancer in nude mice
L. Tang, Q. Liu, M. Chen; Shanghai/CN

RPS 1402a-4 11:33
Automated assessment of image quality in digital breast tomosynthesis in a screening setting: more positioning errors for women with large breasts
G. G. Waade, A. S. Danielsen, S. Hofvind; Oslo/NO

RPS 1402a-5 11:39
Reading breast tomosynthesis examinations with an AI decision support system: improving cancer detection accuracy
R. M. Mann, A. Rodriguez Ruiz, A. Gurner Merida, N. Karssemeijer, I. Schepoulous; Nijmegen/NL

RPS 1402a-6 11:45
Predicting malignant mass in digital breast tomosynthesis using a multi-objective feature selection radiomics model
Z. Fengxia, W. Xu, C. Wen, W. Chen, G. Qin; Guangzhou/CN

RPS 1402a-7 11:51
Radiomic standardisation of breast MRI to predict pathological complete response to neoadjuvant chemotherapy
P. Avi1, F. Khalid1, D. Sebbag-Sfez2, F. Frouin3, C. Malhaires1; Paris/FR, Orsay/FR

RPS 1402a-8 11:57
Radiomics-based MR features in HER2 overexpressing breast cancer receiving neoadjuvant chemotherapy: correlation with pathologic response
A. Bitencourt1, P. Gibbs2, C. Rossi1, I. Daimiel Naranjo1, R. Lo Gullo2, K. Pinker-Domenig1, E. A. Morris1, M. Morrow1, M. S. Jochemson2; Sao Paulo/BR, New York/NY/US, Madrid/ES

RPS 1402a-9 12:03
Combined contrast-enhanced magnetic resonance and diffusion-weighted imaging radiomic signatures for the assessment of breast cancer molecular subtypes
D. Leitner1, M. S. Jochemson1, J. V. M. Horvat1, M. A. Marino1, D. B. Avendano2, D. Martinez1, S. Thakur1, E. A. Morris2, K. Pinker-Domenig1; New York, NY/US, Sao Paulo/BR, Messina, AT/IT, Monterrey/MX

RPS 1402a-10 12:09
Radiomic features of axillary lymph nodes based on pharmacokinetic modelling DCE-MRI allow preoperative diagnosis of their metastatic status
H. B. Luo, Y. Y. Liu, J. Ren, P. Zhou; Chengdu/CN

RPS 1402a-11 12:15
Parenchymal radiomics in cone-beam breast CT: comparison with mammography and implication for cancer risk estimation
Y. Zhu, Y. Zhang, Y. Ma, Z. Ye; Tianjin/CN

RPS 1402a-12 12:21
Artificial intelligence breast cancer risk estimation from CT thorax scans
S. de Buck1, J. Bertels1, C. van Bilsen2, T. Dewaele2, C. van Ongeval1, H. Bosmans1, J. Vandevenne1, P. Suetsens1; Leuven/BE, Genk/BE, Leuven - Heverlee/BE

11:15 - 12:30 Room X

Vascular

RPS 1415 11:49
Advances in vascular imaging
Moderators:
R. Scherrnanthan; Vienna/AT
U. Hoffmann; Boston, MA/US

RPS 1415-1 11:15
Flow-controlled angiography for the assessment of vascular patency, permeability, and leakage in bioengineered kidneys
S. Cohen1, S. Hirscheberg1, S. Partouche1, M. Gurevich1, V. Tennak1, V. Mezhvyovsky1, E. Nisler1, E. Mor1, E. Atar1; Petah Tikva/IL, Salit/IL, Ramat Gan/IL

RPS 1415-2 11:21
The evaluation of early haemodynamic changes in rabbit aorta atherosclerosis by high frame rate V-flow imaging
Y. Dong, Y. Qiu, Q. Zhang, D. Yang, W. Wang; Shanghai/CN
RPS 1415-3 11:27
The detection of shear stress in haemodialysis arteriovenous fistulae by ultrasound vector flow imaging
J. Ding1, R. Zhao1, G. Yang1, Y. Du2, L. Zhu2, H. Gan1, M. Wang1; 1Beijing/CN, 2Zhejiang/CN

RPS 1415-4 11:33
Ferumoxytol MR angiography: a novel imaging technique for vascular mapping before haemodialysis arteriovenous fistula creation
A. Tan1, S. Stoumpos1, P. Hall Barrientos1, A. Radjenovic1, D. Kingsmore1, R. S. Kasthuri1, G. Roditi1, P. Mark1; 1Glasgow/UK

RPS 1415-5 11:39
A magnetic micro-robot for aneurysm coiling with magnetic particle imaging
A. C. Bakeneccker1, F. Wegner1, H. Schwenke1, K. Lüdtke-Buzug1, T. Friedrich1, J. Barkhausen1, T. M. Buzug2; 1Lübeck/DE, 2Neuss/DE

RPS 1415-6 11:45
The safety of a new stent design during magnetic particle imaging and magnetic resonance imaging
T. Song1, Z. Li1; 1Shanghai/CN

RPS 1415-7 11:51
The identification of intra-individual flow variation of intracranial aneurysms on phase-contrast MR and the influence on computational haemodynamics
Y. Wang1, X. Liu1, E. Kao1, H. Haraldsson1, M. Ballweber2, M. Alastair3, D. Saloner1; 1Chengdu/CN, 2Beijing/CN, 3San Francisco/US

RPS 1415-8 11:57
The potential of ferumoxytol as a contrast media in computed tomography: a phantom study
A. Parakh1, A. O'shea1, M. Harisinghani1, A. Kambadakone1, R. Gupta1, B. Ghoshhajra1, S. Hedgire1; 1Boston/MA, USA

RPS 1415-9 12:03
Virtual monochromatic images in low tube current dual-energy spectral imaging combined with adaptive statistical iterative reconstruction V in head CT angiography: a phantom and clinical study
T. Song1, Z. Li1; 1Chengdu/CN

RPS 1415-10 12:09
The effectiveness of dual-layer spectral detector CT for reducing the amounts of contrast agents and injection flow rate
T. E. Kim1, Y. H. Chung1, T. H. Nam1, S. A. Kwon1; 1Seongnam/KR, 2Seoul/KR

RPS 1415-11 12:15
The validation of iodine contrast flow velocity quantification from time-resolved CT-angiography in a flow phantom
P. T. Boonen1, N. Buls1, J. Vandemeulebroucke1, G. van Gompel1, Y. J. F. de Brucker1, L. Zhu2, H. Gan1, M. Wang1; 1Leuven/BE, 2Brussels/BE, 3Utrecht/NL

RPS 1415-12 12:21
DKI evaluation of crossed cerebellar diaschisis after MCAO cerebral infarction in rats
Z. Ma1, X. Zhao1, Zhengzhou/CN

Interventional Radiology

RPS 1409a 11:25
Cost awareness of interventional radiology devices among radiology trainees
M. Courtney1, D. Mulholland1, D. O’Neill1, C. Redmond2, M. J. Lee1, T. Farrell1; 1Dublin/IE, 2Tullamore/IE

RPS 1409a-2 11:31
A pilot study to compare the perception of image quality using smart glasses and a conventional monitor
S. Dorey1, S. Al-Islam1, J. D. Thompson1, A. England1; 1Manchester/UK, 2Blackburn/UK

RPS 1409a-3 11:37
Endovascular simulation training: a tool to increase enthusiasm for interventional radiology among medical students
F. Stoehr1, S. Schotten1, M. B. B. Pitton1, C. Düber1, F. Schmidt1, N. L. Hansen1, B. Baessler2, R. Kloeckner1, D. Pinto Dos Santos2; 1Mainz/DE, 2Cologne/DE

RPS 1409a-4 11:43
Augmented reality in training: can CT-guided intervention be simulated accurately?
D. Aminis1, P. Pratt1, T. Hurksxens1, C. Watura1, B. Pitrola1, S. Rostampour1, M. Hammady1; 1London/UK, 2Luton/UK

RPS 1409a-5 11:49
RDIM software for patient peak skin dose assessment: comparison with radiochromic film measurements
M. M. J. Felisi1, P. E. Colombo1, S. Riga1, F. Rottoli1, F. Barbosa1, A. Rampoldi1, C. Dillion2, S. Massey1, A. Torresin1; 1Milan/IT, 2Scottsdale, Arizona/US

RPS 1409a-6 11:55
Monte Carlo study of 3D stray radiation during interventional procedures
K. S. Alzimami1; Riyadh/SA

RPS 1409a-7 12:01
The eye lens dose of the interventionalist: measurement in practice
E. J. Meijer1, D. van Zandvoort1, J. W. H. Kruimer1, M. E. E. R. Elsakka1, Y. Al-Obudi1, H. M. A. Elgendy1, M. Zamir1; 1Amsterdam/NE, 2Amman/Jordan, 3London/UK, 4Leicester/UK

RPS 1409a-8 12:07
Endovascular technologies for radiation oncology: how to protect patients from potential bleeding during radiotherapy and proton therapy in cases of vessel tumour invasion
M. Cherkashin1, I. Sonkin1, N. Martynova1, N. Berezina1, S. Dorey1, S. Al-Islam1, J. D. Thompson1, A. England1; 1Manchester/UK, 2Blackburn/UK

RPS 1409a-9 12:13
Monte Carlo study of scattered radiation during CBCT studies
Y. Toufique1, J. Goracy1, I. Delakis1, C. E. Kelly1, N. Apps1, V. Bahun1, S. A. Kwon1, T. Farrell1; 1Dublin/IE, 2Tullamore/IE

RPS 1409a-10 12:19
Leveraging technology to build an interventional oncology practice
S. H. Shah1; New York, NY/US

RPS 1409a-11 12:25
Does interventional radiology undergraduate exposure hold the key to workforce shortage? A multicentre/cross-sectional study in the United Kingdom
M. E. E. R. Elsakka1, Y. Al-Obudi1, H. M. A. Elgendy1, M. Zamir1; 1Amsterdam/NE, 2Amman/Jordan, 3London/UK, 4Leicester/UK
Artificial Intelligence and Machine Learning

RPS 1405b
Artificial intelligence and CT radiomics

Moderators:
M. Kolossvari; Budapest/HU
T. Penzkofer; Berlin/DE

RPS 1405b-1 11:15
An externally validated prognostic model based on CT radiomics to improve risk-stratification in head and neck cancer patients
S. A. Keek1, F. Wesseling2, L. Licitra1, K. Scheckenbach1, T. Hoffmann1, M. Ravanelli1, R. Leemans1, T. Poli1, P. Lambin1; Maastricht, LIMBURG/NL, 2Maastricht/ML, 3Milan/IT, 4Düsseldorf/DE, 5Ulm/DE, 6Brescia/IT

RPS 1405b-2 11:21
Test-retest reproducibility of radiomics features in the computed tomography of interstitial lung disease: a pilot study

RPS 1405b-3 11:27
CT high-resolution images-based radiomics analysis for differentiating lung cancer from tuberculosis
C. Tian1, X. Chunchao1, X. Li2, X. Wang2; Chengdu/CN, 3Shanghai/CN

RPS 1405b-4 11:33
Biosimilar validation with gene expression profiling of a CT-radiomics signature for predicting response to immunotherapy

RPS 1405b-5 11:39
Radiomics of small renal masses on multiphasic CT: accuracy of machine learning-based classification models for the differentiation of RCC and AML without visible fat
R. Yang, J. Wu, L. Sun, S. Lai, Y. Xu, X. Liu, Y. Ma, X. Zhen; Guangzhou/CN

RPS 1405b-6 11:45
Repeatability and reproducibility of radiomics features in spectral CT using an anthropomorphic abdomen phantom
L. Caldeira, J. Holz, S. Lennartz, D. Maintz, N. Grosse Hokamp; Cologne/DE

RPS 1405b-7 11:51
Multicentre validation of a radiomics-based model for the diagnosis of idiopathic pulmonary fibrosis
T. Refael1, B. Bondue1, G. van Smaeyens1, A. Ibrahim1, G. Wu1, H. C. Woodruff1, P. A. Gevenois1, S. Goldman1, P. Lambin1; Maastricht/NL, 2Brussels/BE

RPS 1405b-8 11:57
Prediction of tumour progression and recurrence in patients with hepatocellular carcinoma undergoing transarterial chemoembolisation as a bridge to transplant using CT radiomics features

RPS 1405b-9 12:03
CT-radiomics quantification towards a more accurate immunotherapy response assessment
A. Anton Jiménez1, M. Ligero1, S. Roche1, R. Mast Vilaseca2, N. Roson1, M. Escobar1, R. Perez Lopez1; Barcelona/ES, 2Hospital de Llobregat/ES

RPS 1405b-10 12:09
A preliminary study of radiomic classifiers for identifying small cell lung cancer from non-small cell lung cancer
C. Y. Zhang, S. H. Liu, H. L. Yu, S. L. Liu, Z. X. Zhang; Qingdao/CN

RPS 1405b-12 12:15
A comparison between routine and targeted CT-based radiomics classification models for predicting malignant pulmonary nodules
G. Tao1, Y. Chen1, J. Ye1, H. Yu1, X. Ye1, X. Li1, Z. Zhou2; 1Shanghai/CN, 2Beijing/CN

Breast

RPS 1402b
Hand-held, contrast-enhanced, and automated whole-breast ultrasound

Moderators:
G. Adelsmayer; Graz/AT
A. Vourtsis; Athens/GR

RPS 1402b-1 11:15
The clinical efficacy of second-look ultrasound (SLUS) following breast MRI in breast cancer imaging: does SLUS change management?

RPS 1402b-2 11:21
Evaluation of additional MR-detected breast mass using quantitative analysis of contrast-enhanced ultrasound and its comparability to MR findings

RPS 1402b-3 11:27
Clinical utility of second-look ultrasound with prone MRI virtual navigation in breast lesions detected on MRI alone: a preliminary study
R. Qi, L. Bao; Hangzhou/CN

RPS 1402b-4 11:33
Ultrasonography evaluation of breast ductal carcinoma in situ
S. Paolicelli1, N. Troiano1, M. Carbone1, M. Telegrafo1, M. Moschetta1; 1Parma/IT, 2Modugno/IT

RPS 1402b-5 11:39
Assessment of NACT response in locally advanced breast cancer patients: a prospective comparison of grey scale ultrasound and contrast-enhanced ultrasound
A. Sharma, S. B. Grover, A. Katyan, .. Chintamani, D. C. Ahluwalia; New Delhi/IN

RPS 1402b-6 11:45
False-negative axillary ultrasound in patients with newly diagnosed invasive breast cancer: is there a correlation with preoperative findings?
C. Manzzone, M. Durando, L. Bergamasco, E. Regini, G. Bartoli, G. Mariscotti, P. Fonio; Turin/IT

RPS 1402b-7 11:51
Comparison between execution and reading time of 3D contrast-enhanced breast ultrasound (CESM) in the staging of breast cancer
G. Adelsmayr; Graz/AT

RPS 1402b-8 11:57
Could conventional US and contrast-enhanced US be helpful for breast cancer prediction based on MR imaging BI-RADS category 4 lesions?
J.-M. Xu; Shanghai/CN

RPS 1402b-9 12:03
The role of automated breast ultrasound (ABUS) in correlation to contrast-enhanced spectral mammogram (CESM) in the staging of breast cancer
M. H. Helal, S. A. Mansour, R. Hussien; New Delhi/IN

RPS 1402b-10 12:09
Influence of breast density on patient’s compliance during contrast-enhanced ultrasound (CEUS) in the assessment of breast cancer
S. de Giorgis, N. Brunetti, J. P. Zawaideh, F. Rossi, S. Tosto, A. Tagliafico, M. Calabrese; Genoa/IT

RPS 1402b-11 12:15
A non-invasive differential diagnosis of breast cancer by the new concept of full breast ultrasonography: improvements of the initial assessment of the disease’s extent
A. C. Georgescu, S. Bondari, E. Andrei, A. Manda; Craiova/RO
RPS 1402b-12 12:21

Is US-texture analysis a useful instrument to discriminate fibroadenomas from complex fibroadenomas and benign phyllodes tumours?

11:15 - 12:30

Neuro

RPS 1411a

Arterial spin labeling brain perfusion

Moderators:
A. Majos; Lodz/PL
M. Man,nil; Zürich/CH

RPS 1411a-1 11:15

Application of post labeling delay time in 3D-pseudo continuous arterial spin labeled perfusion imaging in normal children
S. Tang; Chongqing/CN

RPS 1411a-2 11:21

Is multi-delay arterial spin labeling a better biomarker of cerebral perfusion in sickle cell cerebral vasculopathy?
C. V. Prevost1, S. Lion2, R. M. Lebel2, J. Benzakoun1, L. Legrand1, D. Calvet2, P. Bartolucci1, M. Edjlali-Goujon1, C. Oppenheim4; Paris/FR, 1Calgary/CA, 2Crétel/FR, 3Paris Cedex 14/FR

RPS 1411a-3 11:27

Multi-delay ASL with reduced-resolution pre-scan transit time maps for the assessment of cerebral perfusion in Moyamoya disease: a comparison with conventional 3D-ASL
Y. Zeng, S. Zhou, X. Zhang, Y. Chen, J. Fu, S. Duan; Guangzhou/CN, J. Zhang; Shanghai/CN

RPS 1411a-4 11:33

Cerebrovascular reserve derived from ASL may differentiate between affected and unaffected vascular territories in patients with Moyamoya disease
M. Fahlström, P. Enblad, A. Lewén, J. Wikström; Uppsala/SE

RPS 1411a-5 11:39

Establishing a potential imaging biomarker in spinocerebellar ataxia type 3: the application of voxel-based morphometry and ASL
M. Hu, J. Zhao, H. Qiu, J. Chu, C. Wu; Guangzhou/CN

RPS 1411a-6 11:45

ASL MRI brain imaging studies in patients with diabetic retinopathy
G. He; Kunming/CN

RPS 1411a-7 11:51

Perfusion abnormalities detected by MR pseudo-continuous arterial spin labelling (pCASL) in patients with porphyria
G. Castorani1, D. Vergara2, D. Grasso2, C. Borreggine3, G. Valle3, C. C. Guida2, A. Simeone3, T. Popolizio1, G. Guglielmi1; Foggia/IT, 1Naples/IT, 2Manfredonia/IT, 3Casamassima/IT, 4San Giovanni Rotondo/IT, 5Andria/IT

RPS 1411a-9 11:57

The use of arterial spin labelling in acute ischaemic stroke and transient ischaemic attack
C. B. Britz, P. Vilela1, X. Golay3; Lisbon/PT, 2London/UK

RPS 1411a-10 12:03

MRI spectroscopy and arterial spin labelling in migraine patients
G. Singla1, D. S. Thakur1, D. S. Sharma2; 1Karnal/IN, 2Shimla/IN

RPS 1411a-11 12:09

Arterial spin labelling-based MR perfusion in epilepsy: an imaging tool in the presurgical evaluation in epilepsy (a 50 case study)
A. Joshi; S. Jagtap, N. Kurwale, S. Patil; Pune/IN

RPS 1411a-12 12:15

CT-perfusion and MR-ASL in the differential diagnosis of glioblastomas and primary CNS lymphomas
A. Batalov, R. Afandiev, N. Zakharova, E. Pogosbekian, S. Goriainov, A. Bykanov, I. Pronin, A. Potapov; Moscow/ RU

RPS 1407a

Arterial spin labeling brain perfusion

Moderators:
M. Basta Nikolic; Novi Sad/RS
J. Richenberg; Brighton/UK

RPS 1407a-1 11:15

Substantial radiation dose reduction with consistent image quality using a novel low-dose stone composition protocol
P. Apfalter1, A. Dutschke1, M. A. T. Baltzer1, C. Schestak1, M. Ösoy1, C. Seitz1, T. H. Helbich1, H. Ringl1, G. Apfalter1; 1Vienna/AT, 2Graz/AT

RPS 1407a-2 11:21

Comparison of ultra-low-dose CT with standard-dose CT for urolithiasis
Y. S. Shim, S. H. Park, J. Lee; Incheon/KR

RPS 1407a-3 11:27

Variations in CT protocols and radiation doses for haematuria and renal colic: comparing practices in 20 European countries
F. Homayounieh1, V. Gerzhan2, R. Singh3, M. Kalra4, J. Vassileva5; 1Boston, MA/US, 2Skopje/MK, 3Vienna/AT

RPS 1407a-4 11:33

The efficacy of CT urography using low-osmolar reduced-dose contrast agent and reduced radiation dose in patients with chronic kidney disease
H. S. Park, S. H. Kim, S. H. Cho, M. Kim; Daegu/KR

RPS 1407a-5 11:39

Effective radiation dose reduction in CT with iterative reconstruction in patients with urinary stones
S. H. Kim, S. H. Park, J. Lee; Daegu/KR

RPS 1407a-6 11:45

Iodine parameters in triple-bolus dual-energy CT correlate with perfusion CT biomarkers of angiogenesis in renal cell carcinoma
D. Manoharan, A. Netaji, C. J. Das, S. Sharma; New Delhi/IN

RPS 1407a-7 11:51

A normalised dual-energy iodine ratio best differentiates renal cell carcinoma subtypes among quantitative imaging biomarkers from perfusion CT and dual-energy CT
D. Manoharan, A. Netaji, K. Diwan, C. J. Das, S. Sharma; New Delhi/IN

RPS 1407a-8 11:57

A retrospective evaluation of pathological haematuria findings in a fast-track haematuria program
O. Graumann1, J. Madsen2, M. C. Kobel1, B. C. Ipsen1, J. B. Jensen4, A. Makk1; 1Odense/DK, 2Veje/DK, 3Herning/DK, 4Aarhus/DK

RPS 1407a-9 12:03

Size of kidney stones in computed tomography: the influence of contrast agent and reduced radiation dose in patients with chronic kidney disease
H. S. Park, S. H. Kim, S. H. Cho; Daegu/KR

RPS 1407a-10 12:09

Imaging protocols for CT urography: results from a consensus conference of the French Society of Genitourinary Imaging
R. Renard Penna; Paris/FR

RPS 1407a-11 12:15

Urinary calculi detection with CT-urography: our experience using the nephro-pyelographic phase alone
R. Ciabattoni1, I. Campo1, L. Basso1, C. Sachs1, M. A. A. Cova1; 1Trieste/IT, 2Conegliano/IT, 1Genoa/IT

Genitourinary

RPS 1407a-1

Is there any news in CT protocols for renal masses and stones evaluation?
Moderators:
J. Richenberg; Brighton/UK

RPS 1407a-11

Substantial radiation dose reduction with consistent image quality using a novel low-dose stone composition protocol
P. Apfalter1, A. Dutschke1, M. A. T. Baltzer1, C. Schestak1, M. Ösoy1, C. Seitz1, T. H. Helbich1, H. Ringl1, G. Apfalter1; 1Vienna/AT, 2Graz/AT

RPS 1407a-2

Comparison of ultra-low-dose CT with standard-dose CT for urolithiasis
Y. S. Shim, S. H. Park, J. Lee; Incheon/KR

RPS 1407a-3

Variations in CT protocols and radiation doses for haematuria and renal colic: comparing practices in 20 European countries
F. Homayounieh1, V. Gerzhan2, R. Singh3, M. Kalra4, J. Vassileva5; 1Boston, MA/US, 2Skopje/MK, 3Vienna/AT

RPS 1407a-4

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H. S. Park, S. H. Kim, S. H. Cho, M. Kim; Daegu/KR

RPS 1407a-5

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S. H. Kim, S. H. Park, J. Lee; Daegu/KR

RPS 1407a-6

Iodine parameters in triple-bolus dual-energy CT correlate with perfusion CT biomarkers of angiogenesis in renal cell carcinoma
D. Manoharan, A. Netaji, C. J. Das, S. Sharma; New Delhi/IN

RPS 1407a-7

A normalised dual-energy iodine ratio best differentiates renal cell carcinoma subtypes among quantitative imaging biomarkers from perfusion CT and dual-energy CT
D. Manoharan, A. Netaji, K. Diwan, C. J. Das, S. Sharma; New Delhi/IN

RPS 1407a-8

A retrospective evaluation of pathological haematuria findings in a fast-track haematuria program
O. Graumann1, J. Madsen2, M. C. Kobel1, B. C. Ipsen1, J. B. Jensen4, A. Makk1; 1Odense/DK, 2Veje/DK, 3Herning/DK, 4Aarhus/DK

RPS 1407a-9

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H. S. Park, S. H. Kim, S. H. Cho; Daegu/KR

RPS 1407a-10

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R. Renard Penna; Paris/FR

RPS 1407a-11

Urinary calculi detection with CT-urography: our experience using the nephro-pyelographic phase alone
R. Ciabattoni1, I. Campo1, L. Basso1, C. Sachs1, M. A. A. Cova1; 1Trieste/IT, 2Conegliano/IT, 1Genoa/IT
Implementing lung cancer screening

Moderators:
C. De Margerie-Mellon; Paris/FR
S. Diederich; Düsseldorf/DE

Volume doubling times of lung adenocarcinomas: correlation with predominant histologic subtypes and prognosis
S. Park, S. M. Lee

Identifying participant subgroups in a lung cancer CT screening setting based on competing risks at the baseline scan

Validation in LungRADS™ scoring for screen detected lung nodules
H. C. Schmidt, M. McNisn, C. Denrie, D. Langer, M. Ang, A. Khan, P. Jain, M. Tammemagi, G. Darla, Toronto, ON/CA, 2Ottawa, CA, 3Thordl/CA

Comparative cost-effectiveness of dynamic contrast-enhanced computed tomography versus positron emission tomography in the characterisation of solitary pulmonary nodules: the SPUNTIK trial
D. Tzeli, F. J. Gilbert, L. Vali, V. Benedetto, A. Cleggi, S. Harris, J. R. Weir-McCai, K. Miles, S. George, 1Newcastle/UK, 2Cambridge/UK, 3Preston/UK, 4Southampton/UK, 5Brighton/UK

Quality assurance in lung cancer screening by computed tomography: optimised ultra-low radiation dose by beam filtering in a randomised study
M. Silva, G. Milanese, S. Sestini, M. Ruggirello, A. Marchianò, N. Sverzellati, U. Pastorino, 1Parma/IT, 2Milan/IT, 3Amersfoort/NL

Improving diagnostic accuracy for pulmonary nodules with the combination of morphological characteristics and spectral CT-specific multiparameters
Z. Ren, T. He, Xianyang/CN

Using spirometry to identify high-risk individuals not eligible for lung cancer screening
R. Aggarwal, A. Lam, G. Liu, J. Kavanagh, Toronto/CA

Pulmonary nodule growth: can follow-up be shortened with a high-end or an ultra-high-resolution CT scanner?

The classification of pulmonary nodules by Lung-RADS 1.1: a randomised prospective analysis of four ultra-low dose CT protocols in a lung cancer screening trial

Deep learning in discriminating atypical lung nodules: a diagnostic test
Y. Zhang, Y. Liu, H. Han, F. Qu, N. Huang, Z. Ye, Tianjin/CN, 2Beijing/CN

Multi-detector computed tomography diagnosis of the different pathological types of cystic lung cancer
L. Zheng, Y. Li, 1Shanghai/CN, 2Zhangjaigang/CN

Lung-RADS category and smoking status can predict adherence to recommendations in a real-world low-dose CT lung cancer screening program
E. J. M. Barbosa, M. Hershman, 1Philadelphia, PA/US, 2Tucson/US

Dos and don’ts for liver imaging reporting and data system (LI-RADS)

RPS 1401-1 11:15
LI-RADS category 5 hepatocellular carcinoma: preoperative gadoxetic acid-enhanced MRI to predict early recurrence after curative resection
H. Wei, H. Jiang, B. Song, Chengdu/CN

RPS 1401-2 11:21
What proportion of clinically reported LI-RADS 5 observations do not meet LI-RADS 5 criteria?
J. Birnbaum, C. B. Sirlin, V. Chernyak, 1Brons/US, 2San Diego, CA/US, 3Bronx, NY/US

Diagnostic criteria for recurrent hepatocellular carcinoma in gadoxetic acid enhanced MRI: are LR4 observations enough for the diagnosis of recurrence?

Diagnostic performances in liver transplantation candidates
K. Lim, H. Kwon, J. Cho, Pusan/KR

LI-RADS v2018 and the value of arterial phase hyperenhancement on CT and MRI in the cirrhotic liver: outcome and role of ancillary features
A. Inzerillo, G. Porrello, F. Vernuccio, R. Cannella, M. Midiri, G. Brancatelli, 1Lascari/IT, 2Palermo/IT

LI-RADS v2018 and the value of arterial phase hyperenhancement on CT and MRI in the cirrhotic liver: outcome and role of ancillary features
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RPS 1401-1 11:15
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RPS 1401-3 11:27
Diagnostic performances in liver transplantation candidates
K. Lim, H. Kwon, J. Cho, Pusan/KR

Do's and don'ts for liver imaging reporting and data system (LI-RADS)

RPS 1401-4 11:33
Indeterminate lesions (LI-RADS 3 and 4) lacking arterial phase hyperenhancement on CT and MRI in the cirrhotic liver: outcome and role of ancillary features
A. Inzerillo, G. Porrello, F. Vernuccio, R. Cannella, M. Midiri, G. Brancatelli, 1Lascari/IT, 2Palermo/IT

Modiffied LI-RADS for diagnosis of hepatocellular carcinoma on gadoxetic-acid-enhanced MR imaging: a prospective comparative study
Y. Qin, H. Jiang, B. Song, Chengdu/CN

Analysis imaging features of LI-RADS M on MRI using hepatocyte-specific agent and correlation with pathologic diagnosis
K. Lim, H. Kwon, J. Cho, Pusan/KR

The diagnostic performance of LI-RADS v2018 and the value of major features and ancillary features in the diagnosis of 10-19 mm hepatocellular carcinoma (HCC) on gadoxetic acid MRI
S. Xie, J. Chen, Y. Zhang, D. Rong, L. Sun, J. Wang, Guangzhou/CN

Diagnostic accuracy for single-phase CT texture analysis for prediction of LI-RADS v2018 category
S. Puttagunta, C. van der Pol, A. M. Kulkarni, I. Carrión Martinez, J. Wat, M. Ferri, Hamilton/CA

Comparison of current guidelines for the noninvasive diagnosis of hepatocellular carcinoma using gadoxetic acid-enhanced MRI: diagnostic performances in liver transplantation candidates

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Musculoskeletal

RPS 1410a
Spine and inflammatory disorders

Moderators:
M. S. Posadzky; Poznan/PL
W. J. Rennie; Leicester/UK

RPS 1410a-1 11:15
Evaluation of the diagnostic accuracy of the RA magnetic resonance imaging (MRI) scoring system (RAMRIS) in wrist and metacarpophalangeal (MCP) joints in patients with rheumatoid arthritis (RA)
H. Wu, G. Zhang; Guangzhou/CN

RPS 1410a-2 11:21
High-resolution MRI assessment of flexor tendon pulleys in psoriatic arthritis for disease detection and differentiation from rheumatoid arthritis using a 16-channel hand coil
D. B. Abrar1, M. Frenken1, M. Boschheidgen1, S. Nebelung2, P. Sewerin1, G. Antoch1, D. McGonagle1, C. Schleich1; Düsseldorf/DE, 2Aachen/DE, 1Leeds/UK

RPS 1410a-3 11:27
The semi-automated algorithm for the detection of bone marrow oedema lesions in patients with axial spondyloarthritis
I. Kuczyńska, J. Polak, Z. Tabor, A. Urbanik, W. Wojciechowski; Cracow/PL

RPS 1410a-4 11:33
How tin filtration affects the value of an effective radiation dose in CT of the sacroiliac joints: can CT replace x-ray in patients with suspected sacroiliitis?
E. Korcalová1, J. Štepánková1, D. Suchy1, P. Hosek1, K. Bajcurová1, J. Pernicky1, H. Mírka1; Plzeň/CZ

RPS 1410a-5 11:39
Glycosaminoglycan remodelling of lumbar intervertebral discs in elite rowers throughout their annual training cycle
M. Frenken1, L. Kasprowski1, M. Boschheidgen1, B. Bittersohl1, G. Antoch1, C. Schleich1, S. Nebelung1, D. B. Abrar1; Düsseldorf/DE

RPS 1410a-6 11:45
Degeneration at atypical spinal segments in patients with abdominal aortic aneurysms
N. A. Farshad-Amackey, M. Farshad, J. Galley, R. Sutter, T. Götschi1, U. J. Mühlematter1; Zurich/CH

RPS 1410a-7 11:51
Ultrasound evaluation of nail and extensor digitorum tendon involvement in psoriatic patients
L. Wang1, L. Qiu1; Chengdu/CN

RPS 1410a-8 11:57
The role of ultrasonography in monitoring long-standing rheumatoid arthritis
M. L. Dura, P. Zuchowski1, P. Gorgolewski1, S. Jeka1; Bydgoszcz/PL

RPS 1410a-9 12:03
The importance of lumbrical muscle enhancement on bilateral dynamic contrast-enhanced hand MRIs of patients with arthralgia: a possible diagnostic MRI-clue for rheumatoid arthritis
E. Askaya1, A. Gürsoy Coruh1, A. H. Elhan1, G. Sahin1; Ankara/TR

RPS 1410a-10 12:09
T2 mapping of the sacroiliac joints in patients with axial spondyloarthritis: a pilot study
D. Albani1, R. Bignone1, V. Chianca1, R. Cuocolo1, C. Messina1, L. M. M. Sconfienza1, F. Ciccia1, M. Midiri1, G. Falci1; Milan/IT, 2Palermo/IT, 3Naples/IT

Cardiac

RPS 1403a-1 11:15
Epicardial fat, coronary calcifications and cardiovascular risk stratification: what’s new in cardiac imaging?
G. Krombach1, Giessen/DE
G. Muscogiuri; Milan/IT

RPS 1403a-2 11:21
Principal shape components derived from shape analysis of left coronary artery bifurcation correlated weakly with calcium score in a cohort with intermediate cardiovascular risk
Y. Huang1, W.-J. Lee1, S.-J. Chen1, Y.-C. Chen1, C.-L. Ko1, T.-D. Wang1, C.-M. Chen1, Y.-C. Chang1; Taipei/TW

RPS 1403a-3 11:27
Coronary artery calcification with high-pitch chest CT using 256-detector row wide-volume CT scanner: comparison with dedicated calcium scoring CT
J. M. Shih1, T. H. Kim1, S. Y. Lee1, S. J. Ki1, C. H. Park1; Seoul/KR

RPS 1403a-4 11:33
Altered cardiac structure and function below recent coronary artery bifurcation correlated weakly with calcium score in a cohort with intermediate cardiovascular risk
F. C. Laqua1, R. Bülow1, S. Gross1, T. Ittermann1, H. Völzke1, S. Felix1, M. Dörr1, N. Hosten1, P. L. Madsen2; ‘Greifswald/DE, 2Copenhagen/DK

RPS 1403a-5 11:39
Metabolic syndrome and ectopic fat deposition in subclinical type 2 diabetes mellitus as determined by 1H-Magnetic resonance spectroscopy
Y. Gao1, Z.-G. Yang1, R. Shi1, L. Jiang2; Chengdu/CN, 2Guangzhou/CN

RPS 1403a-6 11:45
Association of coffee consumption with MRI markers of cerebral small vessel disease, cardiac function, and fat deposits in a population-based study cohort
E. Beller1, R. Lorberer1, D. Keesser1, F. Meinel1, S. Grosu1, F. Bamberg1, C. L. Schlett1, B. B. Ertl-Wagner1, S. Stöcklein1; Rostock/DE, 2Munich/DE, 3Freiburg/DE, 4Toronto, ON/CA

RPS 1403a-7 11:51
Coronary artery calcium scoring: towards an update of the SHSES scale and epicardial adipose tissue thickness in patients with hypertension
P. Gic1; M. Poreba, P. Macek, G. Mazur, R. Poreba; Wrocław/PL

RPS 1403a-8 11:57
Epicardial fat and ectopic fat deposition in subclinical type 2 diabetes mellitus as determined by 1H-Magnetic resonance spectroscopy
Y. Gao1, Z.-G. Yang1, R. Shi1, L. Jiang2; Chengdu/CN, 2Guangzhou/CN

RPS 1403a-9 12:03
Association of coffee consumption with MRI markers of cerebral small vessel disease, cardiac function, and fat deposits in a population-based study cohort
E. Beller1, R. Lorberer1, D. Keesser1, F. Meinel1, S. Grosu1, F. Bamberg1, C. L. Schlett1, B. B. Ertl-Wagner1, S. Stöcklein1; Rostock/DE, 2Munich/DE, 3Freiburg/DE, 4Toronto, ON/CA

RPS 1403a-10 12:09
Loss of glycosaminoglycans in lumbar intervertebral discs in patients with ankylosing spondylitis
D. B. Abrar1, M. Frenken1, M. Boschheidgen1, S. Nebelung1, G. Antoch1, P. Sewerin1, X. Baralaiakos1, C. Schleich1; Düsseldorf/DE, 2Aachen/DE, 3Herne/DE

RPS 1403a-11 12:15
Reduction of metal artefacts caused by titanium peduncular screws at the spine using monoenergetic images and the MARS (metal artefact reduction software) system in dual-energy computed tomography
L. Ceccarelli, F. Ponti, P. Spinnato, R. Clinca, L. Lotrecchiano, A. M. Chiesa, G. Facchini; Bologna/IT

11:15 - 12:30 Room F2
RPS 1403a-9 11:57
Increased epicardial adipose tissue accumulation as a predictor for essential hypertension in non-obese adults
G. Dobrovolskij1, D. Austy1, V. Jablonskiene1, V. Dobrovolskij2, N. Valeyevicha1, R. Stukas2; "Coblentz/DE; "Vilnius/LT"

RPS 1403a-10 12:03
Impact of blending weight in hybrid iterative reconstruction on coronary artery calcium score based on cardiac CT
Z. Liu; Beijing/CN

RPS 1403a-11 12:09
The fight between CAD-RADS and the calcium score: who is the winner?
R. Malago1, G. Tabacco1, S. Peretto1, M. Poletti2, M. Mochen1, G. Salandini1, M. Pernigotto1, G. Mansueto1, L. Bonasera2; "Verona/IT; "Cles/IT; "Dimaro/IT"

RPS 1403a-12 12:15
Fully automated calcium scoring algorithms for phantom experiments
G. D. van Praagh1, N. R. van der Werf2, M. Voet3, J. Wang1, D. Fleischmann1, M. Greuter3, T. Leiner2, M. J. Willemink1; "Groningen/NL; "Utrecht/NL; "Groningen/NL"

11:15 - 12:30 Coffee & Talk 3
Head and Neck

RPS 1408 Maxillofacial and sinonasal imaging
Moderators:
M. Horta; Lisbon/PT
H. B. Eggesbo; Oslo/NO

RPS 1408-K 11:15
Keynote lecture
S. Bayraktaroğlu; Izmir/TR

RPS 1408-1 11:25
The role of computed tomography staging imaging in the prediction of the pathological depth of invasion (DOI) in oral cancer
G. D. van Praagh1, N. R. van der Werf2, M. Voet1, J. Wang1, D. Fleischmann1, M. Greuter1, T. Leiner1, M. J. Willemink1, M. Pietragalla1, L. G. Locatello2, C. Nardi2; "Verona/IT; "Utrecht/NL; "Groningen/NL"

RPS 1408-2 11:31
Correlation of MRI derived parameters and SUV uptake obtained from FDG-PET-CT with human papillomavirus status in oropharyngeal squamous cell carcinomas

RPS 1408-3 11:37
Redirection of parasagittal cuts of magnetic resonance imaging for the temporomandibular joint
M. K. Zayet; Cairo/EG

RPS 1408-4 11:43
Visualisation of mandible fractures with the affection of the inferior alveolar nerve with high-resolution MRI sequences
E. Burian, L. Ritschl, M. Probst; Munich/DE

RPS 1408-5 11:49
In vitro validation of a digital subtraction radiography (DSR) system in detecting root canal (RC) density changes
G. Trifylli1, I. C. Mackie2; "Nikai/GR; "Manchester/UK"

RPS 1408-6 11:55
Densitometric analysis of the condyle and axis in determining osteoporotic risk: a CBCT study
A. Urji, B. Evlice; Adana/TR

RPS 1408-7 12:01
Radiomorphometric evaluation of the clivus in an Indian paediatric population visiting a tertiary dental hospital: a cone-beam computed tomography study
A. Chaurasia; Lucknow/IN

RPS 1408-8 12:07
Comparison of the diagnostic value of CT signs of lacrimal sac dilatation in patients with dacrocyctitis with verbal reporting and virtual endoscopy
A. Ageev1, A. Dergilev2, V. A. Obodov1, A. Obodov1; "Novosibirsk/RU; "Yekaterinburg/RU"

RPS 1408-9 12:13
Evaluation through dacryo-CT of the relapse of epiphora after dacryocystorhinostomy
G. Salandini1, M. Maturi, E. Genco, F. de Cecco, S. Mehrabi, G. Mansueto; Verona/IT

RPS 1408-10 12:19
Assessment of the internal nasal valve angle by computed tomography: a new method proposal and a revision of current techniques
N. Janovic, A. Janovic, B. Pavlovic, M. Dimitrijevic, M. Dijuric; Belgrade/RS

RPS 1408-11 12:25
MRI detects chronic rhinosinusitis in infants and preschool children with cystic fibrosis

11:15 - 12:30 Da Vinci (Room D1)
Cardiac

RPS 1403b Paediatric cardiology and congenital heart disease
Moderators:
O. Duvernoy, Uppsala/SE
N.N.

RPS 1403b-K 11:15
Keynote lecture
J.-N. Dacher; Rouen/FR

RPS 1403b-1 11:25
Imaging of the pulmonary vasculature in congenital heart disease without gadolinium contrast: intra-individual comparison of a novel compressed SENSE accelerated 3D REACT with 4D CE-MRA
L. Penning1, A. Wagner1, K. Weiss1, S. Lennartz1, D. Maintz1, T. Hickethier1, C. P. Naehle1, A. Bunck1, J. Doerner1; "Cologne/DE; "Münster/DE; "Bonn/DE"

RPS 1403b-2 11:31
Long-term follow-up of extracardiac Fontan procedure by CCT and CMR
M. Calvay; M. Bret Zurita1, I. Miguelans Martinez2, E. Cuesta López2, F. Gutierrez-Laraya Aguado1, E. Sanchez Pascual1; "Madrid/ES; "Tres Cantos/ES"

RPS 1403b-3 11:37
Is IVIM enough to assess hepatic injury in post-repair tetralogy of Fallot?
S. Baş Özkök, M. Sorkun; Istanbul/TR

RPS 1403b-4 11:43
Multiparametric myocardial mapping of paediatric cardiac tumours: preliminary results in comparison with conventional cardiac MR evaluation
V. Bordonaro, D. Curione, T. P. Santangelo, P. Ciancarella, C. Napolitano, P. Ciliberti, A. Secinaro; Rome/IT

RPS 1403b-5 11:49
Possibilities of CT-angiocardiography in single ventricle defect diagnostics
T. Tazhigaliyeva; Nur-Sultan/KZ

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RPS 1403b-6 11:55
Correlation between changes in cardiac iron and hepatic iron in paediatric patients with thalassemia major
A. Pepe1, A. Meloni1, A. Filosa2, L. Pistola1, E. Grassedonio1, R. Righi1, P. Preziosi1, F. Positano1, M. Casale1, Pisa/IT, Naples/IT, Palermo/IT, Ferrara/IT, Rome/IT

RPS 1403b-7 12:01
Biventricular cardiac strain in patients with a tetralogy of Fallot: a cardiac magnetic resonance study
C. B. Monti1, G. Guarnieri1, U. Barbaro2, D. Capra1, M. Ali1, F. Sardanelli1, F. Secchi1, Milan/IT, Messina/IT

RPS 1403b-8 12:07
Right versus left ventricular blood pool ratio in T2 mapping: a simple method for detecting left-to-right shunts by CMR
T. Emrich1, T. Schöler1, I. A. Abidoye1, T. Deisler1, A. L. Emrich1, P. Wenzell1, C. Düber1, A. Varga-Szemes1, K.-F. Kreitner1, Mainz/DE, Ado-Ekiti/Nigeria, Charleston/SC, US

RPS 1403b-9 12:13
Anomalous ductus arteriosus connection and its relationship with the right aortic arch
M. Xie, H. Cao, L. Hong, Wuhan/CN

RPS 1403b-10 12:19
Application of prospective ECG-gated multiphase scanning for coronary CT in children with different heart rates
S. Tang, Chongqing/CN

11:15 - 12:30 Darwin (Room D2)

Radiographers

RPS 1414
Improving magnetic resonance imaging practice
Moderators:
V. Syrigiomiotes; Athens/GR

RPS 1414-K 11:15
Keynote lecture
C. Malamateniou, London/UK

RPS 1414-1 11:25
Radiographer’s assessment of referrals for CT and MR imaging using a web-based data collection tool
C. Chilanga1, K. B. Lysdahl1, H. M. Olerud1, R. Toomey2, A. Craddock2, L. A. Rainford2, Milan/IT, Dublin/IE

RPS 1414-2 11:31
Image quality assessment of cervical and lumbar spine MRIs

RPS 1414-3 11:37
A comparison of female pelvic MR image quality: Saudi and Irish perspectives
S. Al Dahery, Jeddah/SA

RPS 1414-4 11:43
Simulated magnetic resonance imaging (MRI) by radiographers to reduce the sedation of paediatric patients
M. Champandjia, G. Gullo, L. Marmy, Lausanne/CH

RPS 1414-5 11:49
Technique and protocols for cardiothoracic time-resolved contrast-enhanced MRA sequences: a systematic review
M. Zanardo1, F. Sardanelli1, L. A. Rainford1, C. B. Monti1, J. G. Murray1, F. Secchi1, A. Craddock1, Milan/IT, Dublin/IE

RPS 1414-6 11:55
The efficacy of the GRASE sequence compared to the compressed sensing technique for breath-hold three-dimensional MR cholangiopancreatography in patients with hyperintense bile on T1-weighted images
D. Morimoto1, T. Hyodo1, M. Iou1, H. Fukushima1, K. Kamata1, M. Takenaka1, K. Miyagoshi1, M. Kudo1, K. Ishii1, Osaka-Sayama/Japan

11:15 - 12:30 Descartes (Room D3)

Oncologic Imaging

RPS 1416a
Chest malignancies: advanced imaging and radiomics
Moderators:
I. Vasylijiv, Kiev/UA
T. C. McCloud; Boston, MA, US

RPS 1416a-1 11:15
A comparison of postoperative recurrence evaluation among FDG-PET/MRI, whole-body MRI, FDG-PET/CT, and conventional methods in non-small cell carcinoma patients
Y. Ohno1, M. Yui2, K. Aoyagi2, Toyoake/Japan, Otawara/Japan, Kobe/Japan

RPS 1416a-3 11:21
Dynamic perfusion area-detector CT (ADCT) versus FDG-PET/CT: the capability for therapeutic outcome prediction in small cell lung cancer patients with limited disease
Y. Ohno1, Y. Fujisawa1, K. Fujii1, N. Sugihara1, S. Seki1, T. Yoshikawa1, Toyoake/Japan, Otawara/Japan, Tokyo/Japan, Kobe/Japan

RPS 1416a-4 11:27
Radiological classification of sub-solid lung nodules to differentiate three subtypes of early pulmonary adenocarcinoma
A. Cui1, M. A. Heuvelmans1, S. Zheng1, H. J. M. Groen1, M. Dorrius1, M. Oudkerk1, D. de Bock1, R. Vliegenthart1, Z. Ye1, Groningen/NL, Tianjin/China

RPS 1416a-5 11:33
Preoperative staging of tumours with mediastinal invasion: cine-MRI versus CT in the detection of cardiac and vascular involvement
N. Gennaro1, U. Cariboni, F. Fazzari, V. M. Giudici1, A. Rossi1, O. G. Santonocito1, P. Novellis1, M. Infante1, L. Balzarini1, L. Monti1, Rozzano/IT
Interventional Radiology

RPS 1409b - Peripheral arterial interventions

Moderators: Z. Bansagi; Budapest/HU
N.N.

RPS 1409b-K 11:15
Keynote lecture
K. S. Koulias; Athens/GR

RPS 1409b-1 11:25
Dose management capability of digital variance angiography (DVA): a 70% reduction of radiation dose in lower limb angiography
M. Gyánó1, K. Szigeti1, S. Osváth2, J. Kiss1, C. Csobay-Novák1, B. Nemes1
1Groningen/NL

RPS 1409b-2 11:31
Endovascular thromboaspiration in acute superior mesenteric artery thromboembolic occlusion
P. Berczi1, M. Ferrua1, U. G. Rossi1, P. Rigamonti1, A. M. Ierardi1, G. Carraffiello1, M. Cariati1; Genoa/IT, 2Milan/IT, 3Varese/IT

RPS 1409b-3 11:37
A retrograde anterior tibial approach for SFA recanalisation: an alternative to the conventional antegrade technique
G. Falcone1, F. Fanelli1, A. Cannavale2, F. Mondaini1, E. Casamassima1, G. Gabbani1, V. Miele1; 2Florence/IT, 3Rome/IT

RPS 1409b-4 11:43
Percutaneous angioplasty with a drug-coated balloon (DCB-PTA) in femoropopliteal arterial disease
G. Mazzarella1, D. Laganà; Catanzaro/IT

RPS 1409b-5 11:49
The efficacy of different embolisation techniques in relation to the different patterns of arterial bleeding: a retrospective analysis of 83 consecutive cases treated in emergency conditions
G. Bianchi1, G. Iacopino1, G. Campidoglio1, P. Palombo1, A. Pace, M. Varrassi, S. Carducci, A. V. Giordano, C. Maschiochi; L’Aquila/IT

RPS 1409b-6 11:55
Texture analysis of an arterial graft thrombus on CT angiography: does it correlate with the age of the thrombus and can it predict the success of catheter-directed thrombolysis?
A. K. Verma1, R. Thornhill1, S. Ryan2, A. Hadziomerovic1, K. R. Smyth1, G. French1, A. Gupta1; 2Lucknow/IN, 3Ottawa/CA

RPS 1409b-7 12:01
Non-contrast-enhanced magnetic resonance imaging for the visualisation and quantification of an endovascular aortic prosthesis, their endoleaks, and aneurysm sacs at 1.5T
M. Salehi Raesi1, P. Langguth1, J. A. Pfarr1, I. Koktzoglou2, R. Edelmann1, J. Graessner1, G. Jansen1, J. B. Hövener1, J. P. Schaefer1; 2Kiel/DE, 3Evaston/US, 4Illinois/US, 5Hamburg/DE

RPS 1409b-8 12:07
Risk factors for macroembolisation in femoropopliteal interventions using the SpiderFX filter embolic protection device
K. M. Treitl1, M. Czihal1, M. Treitl; Munich/DE

RPS 1409b-9 12:13
Endovascular limb revascularisation in no-option critical limb ischaemia: distal deep foot vein arterialisation
G. Cangiano1, M. Silvestre1, F. Pane1, A. Borzelli1, M. Coppola1, A. Paladini1, F. Corvino1, F. Amodiol1, R. Niola1; 2San Sebastianio al Vesuvio/IT, 3Naples/IT, 4Novara/IT

RPS 1409b-10 12:19
Postpancreatectomy haemorrhage (PPH) after pancreaticoduodenectomy (PD): what is the role of interventional radiology (IR)?
D. Palumbo1, G. Guazzarotti1, S. Gusmini1, P. Marra1, M. Salvioni1, M. Venturini1, F. de Cobelli1; 2Milan/IT, 3Bergamo/IT

RPS 1409b-11 12:25
Type II endoleak: go straight!
G. Falcone1, F. Fanelli1, A. Cannavale2, E. Chisci1, M. Citone1, S. Michelagnoli1, V. Miele1; 2Florence/IT, 3Rome/IT

RPS 1409b-12 12:39
Multimodality approach in imaging of the uterus and endometriosis
M. Garbajs1, D. Negru; Iasi/RO

Genitourinary

RPS 1407b - Multimodality approach in imaging of the uterus and endometriosis

Moderators: M. Garbajs; Lubljana/SI
D. Negrud; lass/RO

RPS 1407b-K 11:15
Keynote lecture
N. Rubtsova; Moscow/RU

RPS 1407b-1 11:25
A new MRI scoring system for pelvic endometriosis: a feasibility study
S. Kita1, A. Tamura1, Y. O. Tanaka1, Y. Ota1, H. Kobori1, R. Konno1, R. Shikokawa1, N. Okada1, A. Nishimoto-Kakiuchi1; 1Tokyo/JP, 2Kurashiki/JP, 3Saka/JP, 4Saitama/JP

RPS 1407b-2 11:31
Non-inferiority analysis of endometriomas using DIXON sequence in comparison with conventional pre-contrast volumetric T1 (VT1) sequence
M. M. Filisbino1, F. H. C. Souza1, L. E. Paiva1, M. D. Estrela2, D. M. Araújo1, A. Ska1, H. M. L. Filho1; 2São Paulo/BR, 3Barretos/BR
RPS 1407b-3 11:37
MR classification of deep pelvic endometriosis: description and impact on surgical management
S. Lamrabet, A. Crestani, A. Bekhouche, C. Owen, C. Touboul, E. Darai, I. Thomassin; Paris/FR

RPS 1407b-4 11:43
Minimal endometriosis: Is it a valid MRI diagnosis? A retrospective correlation study between readers with distinct expertise levels

RPS 1407b-5 11:49
Role of preoperative transvaginal ultrasound mapping in the surgical management of deep infiltrating endometriosis: a prospective study
S. M. M. M. El-Maadawy, C. Nagy; Dubai/AE

RPS 1407b-6 11:55
Benign or malignant endometrium? can functional MRI techniques like diffusion-weighted imaging (DWI-MRI) and dynamic contrast-enhanced (DCE-MRI) help us in differentiation?
M. Guatli, A. Garg, R. Dixit, G. Gandhi, N. Khurana; New Delhi/IN

RPS 1407b-7 12:01
Multiple-b values of diffusion-weighted imaging (DWI) for grading endometrial cancer
O. Zhang, X. Zhao, H. Ouyang; Beijing/CN

RPS 1407b-8 12:07
Three-dimensional turbo-spin-echo amide proton transfer MR imaging for type I endometrial carcinoma: correlation with Ki-67 proliferation status
Y. He, C. Lin, Y. Qi, X. Wang, H. Zhou, H. Xue, Z. Jin; Beijing/CN

RPS 1407b-9 12:13
Myometrial invasion by endometrial carcinoma: which sequence is more useful with 3.0 Tesla imaging
I. Karaca, A. Sağır Kahraman, Z. Ozdemir, E. Yilmaz, A. Akati, G. Mert Dogan (balaban), H. Kural; 'Malatya/TR, 'Izmir/TR

RPS 1407b-10 12:19
A machine learning-based approach for predicting the malignant potential of T2-hyperintense mesenchymal and mixed tumours of the uterus by fusing T2WI features and clinical information
T. Wang, W. Peng, J. Gong; Shanghai/CN

RPS 1407b-11 12:25
Diffusion kurtosis imaging of endometrial carcinoma
S. Satta, M. Dolciami, F. Di Stadio, S. Capuani, L. Manganaro, C. Catalano; Rome/IT

11:15 - 12:30 Room M 1

Hybrid, Molecular and Translational Imaging

RPS 1406 From hyperpolarised MRI to multimodal imaging probes
Moderators:
S. Aime; Turin/IT
I. Pashkunova-Martic; Vienna/AT

RPS 1406-K 11:15
Keynote lecture
X. Golay; London/UK

RPS 1406-1 11:25
Virtual metabolic biopsies using hyperpolarised carbon-13 MRI to unravel metabolic heterogeneity in renal tumors
S. Ursprung, R. A. Wolte, M. A. McLean, A. S. Costa, A. Warren, C. Frezza, E. Sala, G. Stewart, F. A. Gallagher; Cambridge/UK

RPS 1406-2 11:31
Assessing tumour cell death in vivo using deuterium magnetic resonance spectroscopic imaging
F. Hesse, V. Somai, F. Kreis, F. Bulat, K. Brindle; Cambridge/UK

RPS 1406-3 11:37
Improving longitudinal transversal relaxation of gadolinium chelate using silica coating magnetite nanoparticles
K. Xu, W. Zhang; Chongqing/CN

RPS 1406-4 11:43
Extravidomain-B fibronectin-targeting nanoprobe for FL/PA/CT tridimensional accurate imaging and risk-stratification of breast cancer
D. Yao, Y. Wang, D. Wang; Shanghai/CN

RPS 1406-5 11:49
Novel complementary molecular imaging tools to monitor immunometabolic crosstalk in a rabbit model of liver cancer
L. J. Savic1, L. Doeme2, I. Schobert2, M. Lin2, R. J. Bucala2, N. Goldberg2, F. Hyder2, D. Coman1, J. Chaprou3; Berlin/DE

RPS 1406-6 11:55
Target-specific in vivo imaging of tumour-immune interaction: evaluation of the regulatory protein S100A9
A. Helfen, J. Rieß, A. Schnepel, O. Fehler, M. Gerwing, M. Heindel, M. Wildgruber, M. Eisenblatter; Muenster/DE

RPS 1406-7 12:01
Cathespin B-activated nanoparticles for multimodal imaging-guided photodynamic therapy to breast cancer
Y. Wang, D. Yao, D. Wang; Shanghai/CN

RPS 1406-8 12:07
Functionalised nanoparticles for bone micro-fractures with spectral photon-counting CT

RPS 1406-9 12:13
Quantification of various calcium crystals for gout, pseudo-gout and other arthropathies using spectral photon-counting CT
Y. Sayous1, I. Bernabei2, A. Viry3, N. Busso2, A. P. H. Butler1, L. Stampa1, F. Becc1, A. Y. Raja1, M. Collaboration1; 'Christchurch/NZ, 'Lausanne/CH

RPS 1406-10 12:19
Histology of atherosclerotic plaque compared with tissue components measured using a spectral photon-counting CT
K. Xu, W. Zhang; Chongqing/CN

RPS 1406-11 12:25
Histology of atherosclerotic plaque compared with tissue components measured using a spectral photon-counting CT
K. Xu, W. Zhang; Chongqing/CN

RPS 1406-12 12:31
Histology of atherosclerotic plaque compared with tissue components measured using a spectral photon-counting CT
K. Xu, W. Zhang; Chongqing/CN

11:15 - 12:30 Room M 2

Neuro

RPS 1411b Stroke
Moderators:
C. Trampedach; Koge/DK
J. Walecki; Warsaw/PL

RPS 1411b-K 11:15
Keynote lecture
C. Trampedach; Bogotá/CO

RPS 1411b-1 11:25
Mothership and drip-and-ship: does the initial treatment strategy in acute ischaemic stroke impact the outcome?
Oncologic Imaging

**RPS 1416b**

Multiple myeloma and lymphoma: advanced imaging and radiomics

Moderators:

O. A. Westerland; London/UK

N.N.

**RPS 1416b-2** 11:15

An MRI-DWI visual scale for tumour response evaluation in lymphomas

S. Khazrhkh, E. Zhavrid, A. Dziuban; Minsk/BY

**RPS 1416b-3** 11:21

The correlation between shear-wave velocity in newly diagnosed lymphomas and the degree of intra-tumoural fibrosis: a proof of principle

K. Eckert, H. Bösmüller, M. Horger; Tübingen/DE

**RPS 1416b-4** 11:27

The influence of the MRI protocol on staging smoldering multiple myeloma patients according to the new SLIM-CRAB criteria


**RPS 1416b-5** 11:33

Radiogenomics in multiple myeloma

N. de Vos, J. C. Duito, M. Behaeghe, T. van Den Berghe, P. Vlummen, K. L. A. Verstraete; Ghent/BE

**RPS 1416b-6** 11:39

Magnetic resonance imaging in multiple myeloma: a focus on hip and proximal femur bone lesions and the MY-RADS score

F. Rossi, A. Dominietto, L. Torri, P. Francaviglia, G. Succio, A. Conte, S. Gualco, A. Tagliafico; Genoa/IT

**RPS 1416b-7** 11:45

An increased bone mineral density as an adverse prognostic factor in patients with systemic mastocytosis

J. Kramer, M. Jawhar, W.-K. Hofmann, S. O. Schönberg, A. Reiter, P. Riffel; Mannheim/DE

**RPS 1416b-8** 11:51

Prognostic value of whole-body low-dose CT (WBLDCT) in the staging and restaging of patients with multiple myeloma (MM): a long period follow-up

T. P. Giandola1, D. Ippolito1, M. Ragusi1, M. Porta2, C. Maino1, C. R. G. L. Talei Franzesi1, S. Sironi1; Monza/IT, Senago/IT, Milan/IT, Bergamo/IT

**RPS 1416b-9** 11:57

The role of computed tomography texture analysis using dual-energy-based bone marrow imaging for multiple myeloma characterisation: a comparison with histology and established serologic parameters

C. P. Reinert, E. Krieg, M. Esser, K. Nikolaou, M. Horger; Tübingen/DE

**RPS 1416b-10** 12:03

Advantages of whole-body diffusion-weighted MRI (WBMRI) versus whole-body low-dose CT in young patients affected by multiple myeloma (MM): a retrospective analysis

F. Castagnoli1, A. Villanacci1, V. Angelini2, A. Belotti1, B. Frittoli, L. Graziol1i1; Brescia/IT, Naples/IT

**RPS 1416b-11** 12:09

The diagnostic efficacy of whole-body low-dose CT in the staging of patients with multiple myeloma compared to whole-body magnetic resonance imaging

T. P. Giandola1, D. Ippolito1, M. Ragusi1, M. Porta2, C. Maino1, C. R. G. L. Talei Franzesi1, S. Sironi1; Monza/IT, Senago/IT, Milan/IT, Bergamo/IT
RPS 1416b-12 12:15
Iodine concentration of healthy lymph nodes of the neck, axilla, and groin in dual-energy CT
A. Sauter, S. Ostmeier, J. Nadji, D. Denilled, E. J. Rummery, D. Pfeiffer, Munich/DE, 1Toronto, ON/CA

RPS 1410b-1 11:15
Feasibility of MRI/DWI for the evaluation of treatment response in multiple myeloma: can ADC values predict treatment response?

RPS 1410b-2 11:21
Dual-energy CT virtual non-calcium technique in the diagnosis of osteoporosis: a correlation study with quantitative CT
Z. Liu, Y. Zhang, Y. Jiang, Xi'an/CN

RPS 1410b-3 11:27
3D calcium maps of bone mineral density using spectral photon-counting CT

RPS 1410b-4 11:33
Accuracy, precision, and reliability of bone mineral density (BMD) measurements by dual-energy CT (DECT): an initial ex vivo study
L. Qin, F. Yan, L. Du, Shanghai/CN

RPS 1410b-5 11:39
MRI patterns indicate treatment success and tumour relapse following radiofrequency ablation of osteoblastoma

RPS 1410b-6 11:45
Benign versus malignant soft tissue tumours: differentiation with 3T MR texture analysis including intravoxel incoherent motion diffusion-weighted imaging

RPS 1410b-7 11:51
MR imaging-guided high intensity focused ultrasound for painful bone metastases: standard versus dedicated conformal bone system
C. Gasparini, M. P. P. Aparisi Gomez, P. Ghannouni, T. Frisoni, D. Donati, A. Napoli, A. Bazzocchi, 1Bologna/IT, 2Valencia/ES, 3Stanford/US, 4Rome/IT

RPS 1410b-8 11:57
Treatment effects on osteoporotic vertebral compression fractures: a clinical long-term study of pain evaluation after verteoplasty and kyphoplasty
T. J. Vogl, C. Hackbart, N. N. N. Naguib, Frankfurt am Main/DE

RPS 1410b-9 12:03
Diffusion-weighted magnetic resonance and TI heterogeneity predicts the response to treatment in sarcomas
D. Moreno Martínez, A. Gimeno, I. Ramos Oliver, M. de Albert de Dasas-Vigo, C. Torres, L. Casas, J. M. Escudero Fernández, R. Dominguez, M. T. Veintemillas, Cornella de Llobregat/ES, 1Barcelona/ES

RPS 1410b-10 12:09
Bone marrow oedema detection using dual-energy CT: application in sacroillitis
M. Chen, J. L. Jaremko, F. van Den Bosch, H. Herregods, P. Carron, D. Elewa, L. B. O. Jans, Ghent/BE, 1Edmonton, AB/CA

RPS 1410b-11 12:15
A novel computed tomography-based scoring system of intra-articular mineralisation of the knee: BUCKS (Boston University calcium knee score)

RPS 1410b-12 12:21
Angulation neutralising gyration evaluation line-up (ANGEIL) rib reconstructions in low-dose thoracic CT examinations of myeloma patients
J. Neubauer, L. Waibel, I. Dietrich, C. Neubauer, Freiburg/DE

RPS 1410b-13 12:27
Awards

RPS 1404b-1 11:15
CTPA with a conventional CT at 100 kVp versus a spectral-detector CT at 120 kVp: a comparison of radiation exposure, diagnostic performance, and image quality

RPS 1404b-2 11:21
Dual-energy CT in patients with suspect acute pulmonary embolism: a diagnostic accuracy systematic review and meta-analysis
A. Cozzio, C. B. Monti, M. Zanardo, S. Schiaffino, F. Sardanelli, F. Secchi, Milan/IT, 1San Donato Milanese/IT

RPS 1404b-3 11:27
The feasibility and diagnostic performance of a contrast-enhanced ultra-low-dose CT protocol with a reduced scan range at 0.56 mSv on a 3rd generation dual source scanner to detect pulmonary embolism
A. B. Brendlin, S. Afat, K. Nikolaou, A. Othman, Tübingen/DE

RPS 1404b-4 11:33
Prevalence and patterns of lung disease in patients with vascular Ehlers Danlos Syndrome (vEDS): CT features and histological correlations

RPS 1404b-5 11:39
Machine learning-based cardiac chamber segmentation in CTPA for the noninvasive detection of pulmonary hypertension
M. A. Fink, C. Melzig, B. Egenlauf, E. Grünig, H.-U. Kauczor, C. P. Heussel, Freiberg/DE

RPS 1404b-6 11:45
Machine learning model for predicting 30-day all-cause mortality in patients who were diagnosed with pulmonary embolism in the emergency department
N. Cahan, H. Greenspan, Y. Barash, S. Soffer, E. M. Marom, S. Apter, E. Koneri, E. Klang, 1Tel Aviv/IL, 2Ramat Gan/IL, 3Tel Hashomer/IL

RPS 1404b-7 11:51
Contrast medium administration for chest CT: a European protocol survey
M. K. Henning, T. M. Aaloekken, A. C. T. Martinsen, S. Johansen, Oslo/NO
An evaluation of breast shielding combined with low-dose CTPA protocol for use in pregnancy

Pseudo-embolic perfusion defects in pulmonary arterial hypertension (PAH) and pulmonary vено-occlusive disease (PVOD): evaluation with dual-energy CT lung perfusion in 63 patients
B. Lefebvre, M. Kyheng, N. Lambin, P. Degroote, M. Fertin, J.-B. Faivre, J. Remy, M. Remy-Jardin; Lille/FR

Salvage of suboptimal enhancement of pulmonary artery in pulmonary CT angiography studies: rapid kVp switch dual-energy CT experience
A. Cinkooglu, S. Bayraktaroğlu, R. Savas; İzmir/TR

Application of the dual-layer spectral detector CT on CTPA with a low dose of iodine contrast agent and low injection rate
X. Sui, W. Song, Z. Y. Jin, H. Du, X. Lu, S. Yu; Beijing/CN, 2Shenyang/CN

Dual-energy contrast-enhanced CT compared to lung perfusion scintigraphy to assess pulmonary perfusion in patients with severe emphysema
H. A. Gietera, K. Walraeven, R. Posthuma, C. Mitea, D. J. Siebos, L. Vanflieteren; 1Maastricht/NL, 2Groningen/NL, 3Gothenburg/SE

The correlation between 3T-MRI findings and the clinical outcome in patients submitted to MRgFUS thalamotomy: beyond what we can see
A. Corridore, M. C. de Donato, P. Cerrone, F. Bruno, M. Varrassi, F. Arrigoni, A. Catalucci, P. Sucupane, C. Masciocchi; L’Aquila/IT

Mapping the cortical connections of the ventral intermediate nucleus with high resolution in patients undergoing MRI-guided Hifu thalamotomy
P. Malmierca Ordoqui, A. Paternain Nuin, A. Ezponda Casajus, P. Malmierca Ordoqui, A. Ezponda Casajus; Pisa/IT

How anxiety influences brain activity: a connectometry study
M. Porcu, P. Garofalo, F. Destro, A. Operamolla, A. Caneglias, E. Scapin, L. Saba; Monserrato/IT, 2Cagliari/IT

Three-dimensional magnetic resonance fingerprinting at 3.0T: a preliminary clinical evaluation
G. Di Salle, G. Buononcontri, M. Cencini, M. Tosetti, P. Cecchi, G. Migaledu, M. Cosottini, G. Donatelli; Pisa/IT

Magnetic resonance image compilation (MAGIC): utility in epilepsy imaging
R. Vadapalli, A. S. Vadapalli; Hyderabad/IN

Synthetic diffusion-weighted imaging (MAGIC DWI) in stroke imaging: a study of 52 cases
R. Vadapalli, A. S. Vadapalli; Hyderabad/IN, 2London/UK

3D high-resolution myelin imaging using synthetic MRI
M. J. B. Warntjes, P. Johansson, P. Lundberg, A. Tisell; Linköping/SE

In vivo description of the cerebral microvascular structures of a preterm newborn: the feasibility of superb microvascular imaging (SMI)
A. Barietta, P. A. Bonaffini, M. Balbi, A. Surace, A. Caroli, S. Gerevini, S. Sironi; 1Bergamo/IT, 2Ranica/IT

The validity of SuMRI in the assessment of the neonatal brain
V. Schmidbauer, M. C. Diogo, S. A. Jengojan, K. Goerl, A. Berger, D. Prayer, G. Kasprian; Vienna/AT

Sodium MRI in mild traumatic brain injury
H. Grover, Y. Qian, F. Boada, K. Lakshman, S. Flanagan, Y. Lui; New York/US

What have we learnt from delving deeper? Is MR-guided focused ultrasound targeting the zona incerta with the ventral intermedius nucleus an effective treatment for essential tremor long-term?

The utility of radiomics at baseline rectal MRI to predict the clinical complete response of rectal cancer after chemoradiation therapy
Y. Y. Huang, Y. Li, Z. Liu; Guangzhou/CN

The prognostic role of diffusion kurtosis imaging for advanced gastric cancer after neoadjuvant chemotherapy
Y. Y. Huang, Y. Li, Z. Liu; Guangzhou/CN
Knee and lower extremities

RPS 1610

RPS 1610-1 16:00
Intra- and inter-rater reliability of a new osteoarthritis radiographic scale for anterior cruciate ligament deficient knees

RPS 1610-2 16:06
Feasibility and reproducibility of 3D joint space mapping at the knee with standing CT data from the Multicentre Osteoarthritis Study (MOST) T. Turmezei, S. B. L. Low, A. Citterio, I. Simonetti, A. L. Nanni, F. Vichera, L. Preda, M. S. Prevedoni Gorone, Pesaro/Italy, Naples/Italy, Florence/Italy

RPS 1610-3 16:12

RPS 1610-4 16:18

RPS 1610-5 16:24
Abbreviated 4 sequence protocol versus standard 6 sequence protocol for ankle MRIs: A retrospective check-list-based quantification of the value of additional sequences to the standard sequence S. Rajan, G. Nanda, V. K. Venugopal, M. Murugavel, V. Mahajan, H. Mahajan, S. Gupta, New Delhi/IN

RPS 1610-6 16:30

RPS 1610-7 16:36
3D TSE MRI diagnostic accuracy compared to 2D TSE MRI for the detection of meniscal injuries with arthroscopic correlation R. I. E. Yasin, W. A. Gouda, Menofia/EG

RPS 1610-8 16:42

RPS 1610-9 16:48
Femur lengthening via a retrograde approach with the motorised intramedullary lengthening nail: 10-year follow-up MRI results R. Donners, A. H. Krieg, D. Harder, Basel/CH

RPS 1610-10 16:54
The role of shear-wave elastography in the diagnostic evaluation of plantar fasciitis H. V. Y. R. Chandra, D. K. Singh, N. Kumar, B. K. Nayak, New Delhi/IN

RPS 1610-11 17:00
The prevalence of midtarsal (Chopart) sprains in the setting of acute ankle injury in professional soccer players M. T. Leiderer, G. H. Welsch, I. Molwitz, M. L. Warncke, K. J. J. Maas, P. Bannas, G. Adam, F. O. Hesens, Hamburg/DE

RPS 1610-12 17:06
Tenosynovitis at the metatarsophalangeal joints: a feature of rheumatoid arthritis? Results from a large cross-sectional MRI and anatomical study of tendon sheaths of the forefoot Y. J. Dakkak, F. Jansen, M. de Ruiter, M. Reinierse, A. van der Helm-van Mil, Leiden/NL

RPS 1610-13 17:12
Effectiveness of ultrasound-guided treatment of plantar fasciitis: corticosteroid injection versus dry needling A. Iozzelli, A. Cipriani, Macerata/IT

RPS 1610-14 17:18
Quantitative 2D versus 3D geometric analysis on bones and joints in weight-bearing and non-weight-bearing cone-beam CT images S. Berardes, M. Broos, J. G. G. Dobbe, M. Maas, G. J. Streekstra, R. H. H. Wellenberg, Novara/IT, Amsterdam/NL

RPS 1610-15 17:24
Establishing quantitative measures for detecting subtle calcaneonavicular coalition: a case-control study S. Rajan, V. K. Venugopal, H. Mahajan, V. Mahajan, S. Gaur, New Delhi/IN

Student Session

S 16
My scientific paper in the field of oncologic imaging
Moderator: P. K. Prassopoulos; Thessaloniki/GR

S 16-1 16:05
Comparison of hydrochloric acid infusion radiofrequency ablation with microwave ablation in an ex vivo liver model H. Deng, T.-G. Zhang, X. Jiang, J. Huang, Guangzhou/CN

S 16-2 16:15
Review of the clinical effectiveness of PET-CT scans in the management of sub-solid pulmonary lesions at the Oxford Lung Cancer MDT in the last 5 years M. Rinaldi, F. B. Botta, A. Di Gioia, A. Sykes, F. Gleeson, L. Srinivasan, D. Stavroulais, F. Di Chiara, N. Rahman, L’Aquila/IT, Oxford/UK

S 16-3 16:25
CT texture analysis in PET-negative lung cancer J. Dafina, D. Caruso, M. A. Tipaldi, M. Zenunian, T. Polidori, F. Pucciarelli, E. Ronconi, M. Rossi, A. Laghi, Rome/IT

S 16-4 16:35
MRI bias correction with an implicitly trained convolutional neural network A. T. Simko, T. Lofstedt, J. Jonsson, A. Garpebring, N. Nyholm, Umea/SE
B. Judson1, B. Burtness1, S. Payabvash1, A. Paladini1, I. Percivale1, M. Spinetta1, S. Bor2, D. Negroni1, M. Cernigliaro1

Elevated turnout rate centre

Uterine fibroid embolisation efficacy and safety: 15 years experience in angiography (DVA) in prostatic artery embolisation (PAE)

Application of a novel image-processing method: digital variance

RPS 1609-4

CT-guided biopsy of the adrenal gland in patients suspected of lung cancer

G. Mascaretti, C. Masciocchi

Adrenal glands haemorrhages: embolisation in an acute setting

F. Giurazza, F. Corvino, F. Pane, M. Silvestre, M. Coppola, R. Niola; Naples/IT

16:00 - 17:30 Coffee & Talk 2

Neuro

RPS 1611-3

BOLD fMRI mapping of the language network: comparative assessment of task-based and resting-state fMRI

V. Lolli1, S. Wastling2, L. Mancini1; Brussels/BE, London/UK

16:12
RPS 1611-4 | 16:18
Machine learning analysis in the diagnosis of medication overuse headache: a resting-state functional magnetic resonance imaging study
C. Yang, L. Yao, S. Lu; Chengdu/CN

RPS 1611-5 | 16:24
The reorganisation of language networks after temporal lobe epilepsy surgery: a clinical fMRI study
O. Foesleitner, K.-H. Nenning, V. Schmidbauer, B. Siegl, J. Hainfellner, G. Langs, D. Prayer, G. Kasprian; Heidelberg/DE, Vienna/AUT

RPS 1611-6 | 16:30
Dynamic functional connectivity alterations of trigeminal neuralgia in resting-state fMRIs
X. Wan, P. Zhang, W. Wang, X. Su, S. Zhang, Q. Gong, Q. Yue; Chengdu/Lanzhou/CN

RPS 1611-7 | 16:36
Resting-state network plasticity in low-grade glioma patients before and after resection: maintaining language skills

RPS 1611-8 | 16:42
Thalamic structural connectivity abnormalities in minimal hepatic encephalopathy: a probabilistic tractography study
T.-X. Zou, N.-X. Huang, H.-J. Chen; Fuzhou/CN

RPS 1611-9 | 16:48
Assessment of translingual neurostimulation in the treatment of children with cerebral palsy in the late residual stage by means of a functional MRI
A. Sokolov, A. Efimtsev; Nizhny Novgorod

RPS 1611-10 | 16:54
Altered structural and functional connectome in unilateral sudden sensorineural hearing loss
W. Fan, Wuhan/CN

RPS 1611-12 | 17:06
Diffusion tensor tractography (DTT): an objective method of determining clinically relevant, compressive, spinal cord myelopathy
R. Rastogi, N. Jain; Moradabad/IN

RPS 1611-13 | 17:12
The role of the waist-to-hip ratio in brain networks: a connectometry study
M. Porcu, E. Scapin, P. Garofalo, A. Caneglias, F. Destro, A. Operamolla, L. Saba; Brescia/IT

RPS 1611-14 | 17:18
Neural correlates of insight and analytical anagram solving: fMRI study
E. Kremneva, L. Lagostaeva, N. Suponeva, M. Piradov; Moscow/RU

RPS 1611-15 | 17:24
Language lateralisation in tumour patients and healthy controls using functional MRI and diffusion tractography

RPS 1611-16 | 17:30
The use of CTPA in the evaluation of heart failure in the acute setting
L. O’halloran; J. O’Brien; Limerick/IE, Dublin/IE

MyT3 16 Cardiac

MyT3 16-1 | 16:00
Diagnostic and clinical value of dual-source computed tomography in pulmonary atresia with ventricular septal defect
X.-Z. Zhou, K. Shi, Z.-G. Yang; Chengdu/CN

MyT3 16-2 | 16:04
Screening potential of low-dose chest CT in assessing the degree of coronary arteries calcification
O. V. Styazhkina, K. Zhuravlev, V. E. Sinitsyn; Moscow/RU

MyT3 16-3 | 16:08
Diagnostic performance of myocardial CT perfusion imaging for the detection of obstructive coronary artery disease: intraindividual comparison of half scan and multisegment reconstruction
D. Peucht; G. Garcia, M. Laule, M. Dewey, M. Rief; Berlin/DE

MyT3 16-4 | 16:12
CT-angiographic graft patency after minimally invasive multivessel coronary bypass surgery
O. Drozdova, M. Snegirev; St. Petersburg/RU

MyT3 16-5 | 16:16
Evaluation of segmental viable myocardium using low-dose dobutamine stress cardiac MRI with tissue tracking
B. He, F. Gao; Chengdu/CN

MyT3 16-6 | 16:20
Myocardial CT perfusion imaging for the detection of obstructive coronary artery disease: should interpretation of perfusion defects be different depending on disease status?
D. Peucht; G. Garcia, M. Laule, M. Rief, M. Dewey; Berlin/DE

MyT3 16-7 | 16:24
CT texture analysis of the myocardium in patients affected by aortic stenosis: a potential new tool?
F. Vecchini, G. M. Agazzi, F. Filipini, C. Fiorina, L. Lupi, M. Ravanelli, D. Farina; Brescia/IT

MyT3 16-8 | 16:28
Early evaluation on left ventricular remodelling in patients with type 2 diabetes mellitus using MR tissue tracking
V. Li, Z. Li, C. Xia; Chengdu/CN

MyT3 16-9 | 16:32
Clinical implications of measuring epicardial adipose tissue quantity
A. Jermendy; Budapest/HU

MyT3 16-10 | 16:36
Screening potential of low-dose chest CT in assessing the degree of coronary arteries calcification
O. V. Styazhkina, K. Zhuravlev, V. E. Sinitsyn; Moscow/RU

MyT3 16-11 | 16:40
Compared with the left atrium, left atrial appendage function and myocardial remodeling, play a greater role in relapse of AF after radiofrequency ablation
X. Tian, C. Li, Y. Yuan; Shijiazhuang/CN

MyT3 16-12 | 16:44
A comparative study between cardiac computed tomography and magnetic resonance imaging in the assessment of cavopulmonary anastomosis
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<tr>
<th>MyT3 16-14</th>
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<tr>
<td>Optimised short breath-holding time protocol for subtraction coronary CT angiography</td>
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<td>N. Xu, J. Xing, X. Meng; Shanghai/CN</td>
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<th>MyT3 16-15</th>
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<td>Very low volume of contrast material in pre-TAVI CT: how low can we get?</td>
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<td>P. Olga, A. Wolak, R. Wolff, Y. Almagor, N. R. Bogot; Jerusalem/IL</td>
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<th>MyT3 16-16</th>
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<td>Heart rate-dependent degree of motion artefacts in coronary CT angiography acquired by a dedicated cardiac CT scanner</td>
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<td>M. Vecsey-Nagy, B. Szilveszter, A. Jermendy, M. Kolossvary, J. Simon, Z. Drobi, B. Merkely, P. Maurovich-Horvat; Budapest/HU</td>
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<th>MyT3 16-17</th>
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<td>Radiological visualisation in the diagnosis of potentially life-threatening conditions of an athlete’s pathological heart</td>
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<tr>
<td>B. Sergey1, V. Sukhov2, D. Pospelov2, E. Achkasov1; 1Moscow/ RU, 2St. Petersburg/RU</td>
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<tr>
<th>MyT3 16-18</th>
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<td>Relationships between coronary atherosclerotic morphology of computed tomography coronary angiography and myocardial perfusion abnormalities</td>
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<td>A. Maltseva, K. W. Zavadovsky, A. Mochula, K. Kopeva, E. Grakova; Tomsk/RU</td>
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<th>MyT3 16-19</th>
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<td>Aortic valve calcification scoring with computed tomography: the impact of advanced modelled iterative image reconstruction</td>
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<tr>
<td>R. M. M. Hinzpeter, F. Maisano, A. M. Kasel, F. Tanner, H. Alkadhi, M. Eberhard; Zurich/CH</td>
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<th>MyT3 16-20</th>
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<td>Histological validation of cardiac magnetic resonance T1 mapping for evaluation the variation in myocardial infarction on day 1, day 7 and 3 months in a swine model</td>
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<td>L. Zhang, Y. Guo, H. Xu, M. Yang, R. Xu, Z. Yang, C. Fu; Chengdu/CN</td>
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<th>MyT3 16-21</th>
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<td>Evaluation of image quality and radiation dose with prospective ECG-gated 80-slice CT angiography, in 182 consecutive children examinations with congenital heart disease</td>
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<td>P. de Cambourg, P. Guérin, H. Necib, K. Warin Fresse; Nantes/FR</td>
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<th>MyT3 16-22</th>
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<td>Myocardial extracellular volume assessment in a cohort of oesophageal cancer patients using routine contrast-enhanced CT</td>
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Radiographers

RPS 1714
Medical imaging challenges: nuclear medicine and radiography
Moderators:
D. O’Leary; Newcastle/UK
T. Bauerle; Erlangen/DE

RPS 1714-1 08:30
Preclinical multimodal imaging for a new theranostic approach in oncology
M. Gulizia, J. N. Hyacinthe, O. Lorton, L. A. Crowe, R. Salomir; Geneva/CH

RPS 1714-2 08:36
Multimodal and theranostic iodinated-porphyrins contrast agents: synthesis, x-ray attenuation, and cytotoxicity evaluation
R. M. S. C. Pereira, L. S. C. Pereira, A. F. Faustino; Aveiro/PT, Porto/PT

RPS 1714-3 08:42
Iodinated contrast media and their effect on thyroid function: routines and practices among diagnostic imaging departments in Norway

RPS 1714-4 08:48
A statistical comparison of a triage tool with exercise myocardial perfusion scan (MPS) data in a cohort of Maltese patients
A. Rusandy, B. Sjovold, E. Hofstad, R. J. Reidunsdatter; Trondheim/NO

RPS 1714-5 08:54
The optimisation of computed tomography dose levels in 18F-FDG PET-CT oncology examinations
R. A. F. Nunes; J. M. T. E. Rio, J. Santos; Coimbra/PT

RPS 1714-6 09:00
An assessment of mobile radiography services in nursing homes using the model for assessment of telemedicine applications
E. Kjelle, K. B. Lysdahl, A. M. Myklebust, H. M. Olerud; Kongsberg/NO

RPS 1714-7 09:06
Consideration of anatomical side markers by radiographers and student radiographers
L. A. Rainford, J. M. Grehan, M. O’Connor, J. G. Stowe, M. D. Davis, E. McDermott, R. Toomey; Dublin/IE

RPS 1714-8 09:12
Radiographer optimisation of AEC use: keeping it “automatic” but taking back “control”
K. Matthews, J. Creedon, A. Dalton, E. Higgins, R. Motyer; Dublin/IE

RPS 1714-9 09:18
The effect of non-optimal tube voltage on radiation dose in lumbar spine radiography
E. Alukic, N. Mekis; Ljubljana/SI

RPS 1714-10 09:24
The optimisation of the lateral lumbar spine projection using an air-gap technique
A. Bellizzi, F. Zarbi; Msida/MT

RPS 1714-11 09:30
The influence of optimal collimation on radiation dose and image quality in thoracic spine radiography
A. Pažanin, D. Škrk, N. Mekis; Dubrovnik/HR, Ljubljana/SI

RPS 1714-12 09:36
Automating a generic performance assessment of plain radiography imaging systems
R. Us, N. Mekis; Ljubljana/SI

Interventional Radiology

RPS 1709
TIPS and liver venous intervention
Moderators:
G. Elizondo-Riojas; Monterrey/MX
P. Lucatelli; Rome/IT

RPS 1709-K 08:30
Keynote lecture
N.M.

RPS 1709-1 08:40
Transjugular intrahepatic portosystemic shunt for the treatment of veno-occlusive disease after liver transplantation: a single-centre experience
R. Miriglia, L. S. C. Pereira, L. Maruzzelli, C. Cannata, G. Sparacia, G. Mamone, A. Luca; Palermo/IT, Msida/MT

RPS 1709-2 08:46
Transjugular intrahepatic portosystemic shunt for the treatment of cirrhosis: a multidisciplinary care model for the prevention of complications post-TIPS
C. Li, Y. Xu; Shanghai/CN

RPS 1709-3 08:52
Portal vein embolisation is effective in moderately severe liver fibrosis/cirrhosis

RPS 1709-4 08:58
Endovascular treatment of congenital portosystemic shunts: a single-centre prospective study
M. D. Ponce Dorrego; Madrid/ES

RPS 1709-5 09:04
A simple CT-based score model/nomogram for predicting technical success and midterm outcomes in TIPS treatment for symptomatic portal cavernoma
X. Niu, Y. Chen; Chengdu/CN, Guangzhou/CN

RPS 1709-6 09:10
Variation of perfusion of the liver in cirrhotic patients undergoing TIPS placement for refractory ascites: a DCE-MRI study
L. Nocetti, R. Scaglioni, L. Turco, C. Caporalii, M. Bianchini, G. Guidi, P. Tornicelli, S. Colopi, F. Schepis; Modena/IT, Rubiera/IT

RPS 1709-7 09:16
Successful right portal vein embolisation with ONYX in oncologic patients with massive hepatic right lobe involvement
A. Borrelli, P. Pane, A. Paladini, F. Amadio, E. Cavaglia, R. Niola; Naples/IT, Novara/IT

RPS 1709-8 09:22
Percutaneous closure of portosystemic shunts other than lienorenal shunts in patients with portal hypertension for recurrent hepatic encephalopathy and bleeding
V. H. Ananthashrayana, A. Mukundi, Y. Patidar, S. K. Sarin, C. Ashok; New Delhi/IN, Delhi/IN
RPS 1709-9 09:28
The safety and efficacy of portal vein embolisation in patients with prior left lateral liver resection
V. van Den Bosch1, M. F. Schulze-Hagen1, F. Pedersoli2, P. Isfort1, U. Neumann1, C. K. Kuhl1, P. Bruners1, M. Zimmermann1; ‘Aachen’/DE, ‘Maarstricht’/NL

RPS 1709-10 09:34
Non-invasive assessment of portal hypertension with spectral CT iodine density: a correlation study with HVPG
J. Dong, R. Wang, F. Liu; Beijing/CN

RPS 1709-11 09:40
3D/2D-fusion of preprocedural multi-detector-computed-tomography and intra procedural fluoroscopy for the guidance of portal vein puncture during transjugular intrahepatic portosystemic shunt placement
T. Meine1, T. Werncke1, M. Kirstein1, S. K. Maschke1, C. Dewald1, L. S. Becker1, F. Wacker1, B. C. Meyer2, J. B. Hinrichs1; ‘Hanover’/DE, ‘Berlin’/DE

RPS 1709-12 09:46
Application of a liver biopsy as a treatment strategy determinant in Budd-Chiari syndrome
F. Rafiee, A. Rasekhi, B. Geramizadeh, H. Laalinia, P. Keshavarz; Tehran/I

RPS 1709-13 09:52
Transjugular intrahepatic portosystemic shunt using the new GORE VIATORR controlled expansion endoprosthesis: a single-centre experience
R. Miraglia1, L. Maruzzelli1, G. Sparacii1, G. Mamone1, A. Di Piazza1, M. Milazzo1, C. Cannata1, C. Gozzo1, A. Luca1; ‘Palermo’/IT, ‘Msida’/MT

08:30 - 10:00 Coffee & Talk 2

Artificial Intelligence and Machine Learning

RPS 1705
Artificial intelligence: technical aspects

Moderators:
J. I. Peltonen; Helsinki/FI
M. E. Mayerhöfer; Vienna/AT

RPS 1705-1 08:30
The worrisome impact of an inter-rater bias on neural network training
M. E. Mayerhöfer; Vienna/AT

RPS 1705-2 08:36
Aging AI: how machine learning models go out of sync
O. Pianykh1, C. Crowley2; Newton Highlands, MA/US, ‘Boston’/US

RPS 1705-3 08:42
Cloud computing in combination with multi-scale deep reinforcement learning for 3D-landmark detection applied on whole-body organ volumetric analyses for the building of organ-specific databases
D. I. Winkel1, H.-C. Brett1, A. Ezzi1, B. Stieljes1; ‘Basel’/CH, ‘Princeton’/US

RPS 1705-4 08:48
Adversarial attacks in the detection of pneumothoraces from chest radiographs: addressing a vulnerability of deep neural network classifications in the clinical setting
A. M. Bucher1, A. Distelgort1, D. Kügler1, A. Rajkarnikar1, M. Uecker1, T. J. Vogil1, D. A. Mukhopadhyay1; ‘Frankfurt am Main’, ‘Darmstadt’/DE, ‘Bonn’/DE

RPS 1705-5 08:54
An intelligent way to choose a training dataset for annotation to improve the segmentation accuracy of a deep segmentation network model

RPS 1705-6 09:00
Can AI pick up significant abnormalities missed on the original read, hence contributing to QA?: a deeper dive into the abnormalities detected by AI versus the original radiologist
A. K. Sahu, B. Aggarwal; New Delhi/IN, ‘Mannheim’/DE

RPS 1707-9 09:06
RECOMIA: a cloud-based platform for artificial intelligence research in radiology
P. Borrell1, O. Enqvist1, J. Ulén1, R. Kabothe1, E. Trägdårdh1, L. Edenbrandt1; ‘Gothenburg’/SE, ‘Malmö’/SE

RPS 1707-8 09:12
Integrating machine learning pipelines into clinical workflows with DICOM message queues
V. Saarse, A. Junge, H. Wenz, C. Groden, M. E. Maros; ‘Mannheim’/DE

RPS 1707-9 09:18
The methodology of the formation of databases for machine learning
A. Heldt, T. Trophimova, O. Tsyganskaya, K. Malinovskaya, I. Prokhoro; St. Petersburg/RU

RPS 1707-10 09:24
Super AI and supermodalities: the future of radiology?
D. Gicovate; Jerusalem/IL

RPS 1707-11 09:30
The impact of radiomic feature selection on clinical modelling
J. van Lunenburger, W. H. K. Chiu; Hong Kong/HK

RPS 1707-12 09:36
Practical implementation of artificial intelligence solutions in a multi-country healthcare organisation
R. Ilting1, A. Juhos1, T. Sparkes1, I. Fulop1, R. Fenyi1, O. Dumitrou1; ‘Budapest’/HU, ‘Amsterdam’/NL, ‘Bucharest’/RO

RPS 1707-13 09:42
The role of a deep learning-based artificial intelligence diagnostic system in assisting the establishment of the gold standard in clinical validation studies
J. van Lunnenburg, W. H. K. Chiu; Hong Kong/HK

RPS 1707-14 09:48
The utility of artificial intelligence/machine learning for the detailed evaluation of contrast media comparison studies

RPS 1707-15 09:54
Deep learning for natural language processing (NLP) in radiology
V. Sorin, Y. Barash, E. Konen, E. Klang; Ramat Gan/IL

08:30 - 10:00 Room E

Genitourinary

RPS 1707
Kidney and bladder problem solving: a different approach

Moderators:
I. Sjekavica; Zagreb/HR
N.N.

RPS 1707-1 08:30
3T blood-oxygen-level dependent (BOLD) MRI in renal transplants for the differentiation between acute rejection (AR) and acute tubular necrosis (ATN)
A. Ramadan, M. Shaaban, M. H. K. Khalifa, M. Zeid, N. Baddour, O. Ezz; Alexandria/EG

RPS 1707-2 08:36
Renal allograft dysfunction evaluation using BOLD-MRI
M. E. Abou El-Ghar, H. M. Farg, B. Al-Ei-Dein, A. Refaie, T. El-Diasty; ‘Mansoura’/EG

RPS 1707-3 08:42
Medullary oxygenation: an important index for evaluating renal function in chronic kidney disease
P. Xin Long, T. Xin Kui; Beijing/CN
MyThesis in 3 Minutes

MyT3 17

Head and Neck

Milders:
Y. J. F. De Brucker; Brussels/BE
A. Germano; Barcarena/PT

MyT3 17-1

Performance of HRCT temporal bone in the evaluation of non-otologic anatomical variations in temporal bone and their implications in procedure planning of cochlear implant surgery: a prospective study
S. Agarwai, A. Prakash, N. Mannan, M. Grover; Jaipur/IN

MyT3 17-2

Noise-optimised virtual monoeenergetic imaging of dual-energy CT: effect on contrast agent artifacts reduction on carotid CTA examination
J. Fu, Y. Zeng, J. Zhang; Shanghai/IN

MyT3 17-3

Ultra-high frequency ultrasound (UHFUS) of the minor salivary gland in patients with Sicca syndrome
A. Marucci, S. Vitali; Pisa/IT

MyT3 17-4

Response evaluation of choroidal melanoma after brachytherapy using diffusion-weighted magnetic resonance imaging (DW-MRI): preliminary findings
F. Bitencourt; A. Bitencourt; J. D. O. Souza; N. Neves; M. Chojniak; R. Chojniak; São Paulo/BR; Salvador/BR

MyT3 17-5

The evaluation of the maculopathy using dynamic contrast-enhanced MRI in patients with proliferative diabetic retinopathy
Z. Chen; M. Liu; L. Ma; Beijing/CN

MyT3 17-6

The relationship of severity of migraine and the optic nerve sheath diameter measured by ultrasonography in patients admitted to an emergency department
I. Kanbur; H. Topacoglu; İstanbul/TR

MyT3 17-7

Volumetric analysis of the maxillary, sphenoid and frontal sinuses in computerised tomography: a comparative study using volume rendering in patients of the Hospital Universitario in Monterrey, Mexico
P. M. A. D. Mohamed Abouelhoda; R. A. M. A. Helal; Monterrey/MX

MyT3 17-8

Role of magnetic resonance imaging in patients with tempomandibular joint pain
P. M. A. D. Mohamed Abouelhoda; R. A. M. A. Helal; Cairo/EG

MyT3 17-9

Normal thyroid stiffness in healthy adults using real-time shear wave and strain elastography and factors that influence the measurement of stiffness
M. Z. Mohammad Zakie; P. Chatterjee; R. Ravikumar; Nagpur/IN; Guwahati/IN; Chennai/IN

MyT3 17-10

MDCT evaluation of neck masses in adults
A. Kotwal; A. N. Kamble; New Delhi/IN

MyT3 17-11

Neurologic dysphagia: does the percutaneous endoscopic gastrostomy (PEG) treatment really decrease the incidence of aspiration pneumonia
L. Perrucci; M. Stantieru; M. Giganti; R. Galeotti; Ferrara/IT
MyT3 17-12 09:14
Comparative efficacy of neck ultrasonography, \(^{99m}\)Tc Sestamibi scan and \(^{18}F\)-Choline PET/CT in the preoperative localisation of suspected cases of parathyroid adenoma in primary hyperparathyroidism
T. Neelivath Thazha Kuni, A. Sood\(^1\), R. Kr\(^1\), S. K. Bhadada\(^2\), B. R. Mittal\(^2\), A. Behra\(^2\), U. N. SaiKrai\(^2\), D. S. Rao\(^2\); *Calicut*/\(^2\), Chandigarh*/\(^2\), Delhi*/\(^2\), Mumbai*/\(^2\)

MyT3 17-13 09:18
Role of neck imaging reporting and data system (NI-RADS) in the prediction of local and regional recurrence of head and neck squamous cell carcinoma
T. Taha, M. M. M. Ashour, A. A. Abdel Hameed, Z. M. Abdel Hafeez, A. A. Abdelrahman; Cairo*/EG

MyT3 17-14 09:22
A comparative study for diagnostic performance of shear wave elastography and diffusion-weighted MRI in cervical lymph nodes
V. S. Czontik, E. Ertelkin; Aydin*/TR

MyT3 17-15 09:26
Role of magnetic resonance apparent diffusion coefficient in assessment of solitary thyroid nodule
E. H. A. Emara\(^1\), H. Mansour\(^2\), A. Bessar\(^2\), I. Lebda\(^2\); KAfr El-Shaikh*/EG, Zagazig*/EG

MyT3 17-16 09:30
Preoperative assessment of extrathyroidal extension of papillary thyroid carcinomas by ultrasound and magnetic resonance imaging: a comparative study
S. Hu\(^1\), X. Wang\(^1\); Wuxi*/CN, Zhenjiang*/CN

MyT3 17-17 09:34
Advanced protocol of MSCT data post-processing in orbital trauma
Q. Pavlova, N. S. Serova, D. Davydov; Moscow*/RU

MyT3 17-18 09:38
Clinical value of mobile CT head examination in patients with intensive care unit
P. Jin, C. Xia, Z. Li; Chengdu*/CN

MyT3 17-19 09:42
Role of diffusion tensor imaging in the evaluation of patients with cervical spondylotic myelopathy: a cross-sectional study
V. S. Arunachalam, S. Saxena, R. Dev, P. Sharma, U. Chauhan, S. Sharma, N. Chatterjee; Rishikesh*/IN

MyT3 17-20 09:46
Non-contrast-enhanced carotid MRA: clinical evaluation of a novel unangulated radial quiescent-interval slice-selective MRA at 1.5T
S. Peters\(^1\), M. Huhndorf\(^1\), J.-K. Ulf\(^1\), I. Koktzoglou\(^2\), R. Edelman\(^2\), J. Graessner\(^3\), M. Both\(^1\), O. Jansen\(^1\), M. Salehi Ravesh\(^1\); Kiel*/DE, Evanston*/IL, US, Hamburg*/DE

08:30 - 10:00 Coffee & Talk 3

Chest

RPS 1704 08:36
Measuring the cost of convenience: a multi-reader comparison of chest x-rays reported on a smartphone screen versus a medical grade monitor
V. Mahajan, H. Mahajan, A. Sharma, P. Garg, V. K. Venugopal, S. Gupta, M. Barnwal; New Delhi*/IN

RPS 1704-3 08:42
Extra validation and reproducibility results of a commercial deep learning-based automatic detection algorithm for pulmonary nodules on chest radiographs at tertiary hospital
K. E. Shin, J. S. Park, J. W. Lee, Y. Koo, S. Byun; Bucheon*/KR

RPS 1704-4 08:48
Quantification of regional and temporal lung ventilation in xenon-enhanced dual-energy CT imaging
N. Buil\(^1\), S. Bayat\(^2\), G. van Gompel\(^2\), E. Invers\(^1\), T. van Cauteren\(^1\), J. de Mey\(^1\); Brussels*/BE, Grenoble*/FR, Jette*/BE

RPS 1704-5 08:54
Non-contrast-enhanced 3D-UTE MRI for pulmonary imaging of immunocompromised patients during haematopoietic stem cell transplantation
C. Metz\(^1\), D. Böcke\(^1\), J. F. Heidenreich\(^1\), A. Weng\(^1\), T. Benkert\(^1\), G. U. Grigolet\(^2\), T. A. Blei\(^1\), H. Köstler\(^1\), S. Veldhoven\(^1\); Würzburg*/DE, Erlangen*/DE

RPS 1704-6 09:00
Automated lung segmentation in chest radiographs using convolutional neural networks trained by means of a database augmented with a generative adversarial neural network
R. López-González\(^1\), M. Roca-Sogorb\(^2\), F. Garcia-Castro\(^2\); Alzira*/ES, Valencia*/ES

RPS 1704-7 09:06
Visualisation of combined dark-field and attenuation chest x-rays from patients
R. C. Schick\(^1\), W. Noichl\(^1\), T. Urban\(^1\), M. Frank\(^1\), K. Willer\(^1\), J. Mohr\(^2\); M. Köhler\(^1\), J. Herzen\(^1\), P. Pfeiffer\(^1\); Garching*/DE, Karlsruhe*/DE, Hamburg*/DE

RPS 1704-8 09:12
X-ray dark-field chest radiography: optimal noise filtering for best image quality
Y. N. Leonardt\(^1\), J. H. W. Bodden\(^1\), K. Willer\(^1\), M. Frank\(^2\), A. A. Fingerle\(^1\), T. Köhler\(^1\), D. Pfeiffer\(^1\), E. J. Rummenny\(^1\), F. Pfeiffer\(^1\); Munich*/DE, Garching*/DE, Hamburg*/DE

RPS 1704-9 09:18
X-ray dark-field chest radiography: reconstruction of image signals from a scanning moiré system used in a first patient study
W. Noichl\(^1\), F. de Marco\(^1\), K. Willer\(^1\), T. Urban\(^1\), M. Frank\(^1\), R. Schick\(^1\), T. Köhler\(^1\), J. Herzen\(^1\), P. Pfeiffer\(^1\); Garching*/DE, Hamburg*/DE

RPS 1704-10 09:24
X-ray Darkfield Chest Radiography: Evaluation of Diagnostic Image Quality in Inspiration and Expiration
C. Müller-Leissör\(^1\), T. Urban\(^1\), R. C. Schick\(^1\), G. Zimmermann\(^1\), T. Köhler\(^1\), D. Pfeiffer\(^1\), A. A. Fingerle\(^1\), E. J. Rummenny\(^1\), F. Pfeiffer\(^1\); Munich*/DE, Garching*/DE, Hamburg*/DE

RPS 1704-11 09:30
X-ray dark-field chest radiography: discussion of image signal dependencies of patients biometric data
F. Meurer\(^1\), M. Frank\(^1\), W. Noichl\(^1\), G. Zimmermann\(^1\), T. Köhler\(^1\), D. Pfeiffer\(^1\), A. A. Fingerle\(^1\), E. J. Rummenny\(^1\), F. Pfeiffer\(^1\); Munich*/DE, Garching*/DE, Hamburg*/DE

RPS 1704-12 09:36
X-ray dark-field chest radiography: comparison of 70 kVp gratings-based attenuation chest x-ray image quality with conventional chest x-rays
M. Renz\(^2\), M. Kattau\(^2\), T. Urban\(^2\), G. Zimmermann\(^2\), T. Köhler\(^1\), D. Pfeiffer\(^1\), A. A. Fingerle\(^1\), E. J. Rummenny\(^1\), F. Pfeiffer\(^1\); Munich*/DE, Garching*/DE, Hamburg*/DE

08:30 - 10:00 Coffee & Talk 3

RPS 1704
The dark side of chest imaging
Moderators:
D. Tack; Baudour*/BE
M. Silva; Parma*/IT

RPS 1704-1 08:30
Agreement between consultant radiologists and reporting radiographers in chest radiograph reporting: a consecutive clinical series
N. H. Wozniatz\(^1\), A. Devaraj\(^1\), N. Hayes\(^1\), D. Toghero\(^1\), N. Arumulla\(^1\), E. Skyllberg\(^2\), B. Ghimire\(^3\), Z. Shah\(^2\), D. R. Baldwin\(^2\); London*/UK, Nottingham*/UK
RPS 1704-13 09:42
X-ray dark-field chest radiography: correlation of results from the first COPD-patient study to CT-based COPD analysis
A. Sauter1, M. Kattau2, K. Willer3, G. Zimmermann4, A. A. Fingerle1, T. Koehler1, D. Pfeiffer1, E. J. Rummeny1, F. Pfeiffer1; 1Garching/DE, 2Hamburg/DE

RPS 1704-14 09:48
X-ray dark-field chest radiography: a correlation of first results from COPD-patients with lung function tests
A. A. Fingerle1, K. Willer2, W. Noichl, A. Sauter, G. Zimmermann, T. Köhler, D. Pfeiffer, E. J. Rummeny, F. Pfeiffer; Munich/DE

RPS 1704-15 09:54
Dark-field chest radiography: influence of the breathing state on image appearance
T. Urban1, K. Willer1, W. Noichl1, M. Franki1, R. C. Schick1, J. Mohr2, T. Koehler1, J. Herzen1, F. Pfeiffer1; 1Garching/DE, 2Karlsruhe/DE, 3Hamburg/DE

08:30 - 10:00 Room M 1

Musculoskeletal

RPS 1710
Upper extremities and facial bones
Moderators:
H. M. Brogger, Oslo/NO
B. J. Schwaiger, Munich/DE

RPS 1710-K 08:30
Keynote Lecture
M. Zanetti; Zurich/CH

RPS 1710-1 08:40
A ten-year survey of different treatment approaches to tendinopathy of the supraspinatus tendon: PRP (platelet-rich plasma) or physical therapy?
A. Sauter1, F. Bruno2, S. Mariani2, F. Arrigoni2, L. Zugaro2, A. Barile2, F. Formiconi, M. Ruschioni, C. Gianneramo, F. Bruno, F. Arrigoni, S. Mariani, L. Zugaro, A. Barile, C. Masciocchi; 1Rome/IT, 2L’Aquila/IT

RPS 1710-2 08:46
3D isotropic MR-arthrography in the abduction-external rotation position to evaluate on-track/off-track lesions in anterior shoulder instability
F. Formiconi1, M. Ruschioni, C. Gianneramo, F. Bruno, F. Arrigoni, S. Mariani, L. Zugaro, A. Barile, C. Masciocchi; L’Aquila/IT

RPS 1710-3 08:52
CT evaluation of different outcomes after variations of Bristow-Latarjet operations in a 1-year follow-up
Y. Zhao, H. Yuan; Beijing/CH

RPS 1710-4 08:58
Visualisation of the coracoglenoid ligament in shoulder MR on 3DPD images and the evaluation of its association with shoulder pathologies
S. Rajan, R. S. Batta, H. Majahan, V. M. Majahan, M. Murugavel, V. K. Venugopal; New Delhi/IN

RPS 1710-5 09:04
T2 mapping at 3T MRI detects glenoid labral matrix changes in patients with and without superior labral anterior to posterior (SLAP) lesions of the shoulder using arthroscopy as a reference
C. Rehnitz, F. Wuennenmann; Heidelberg/DE

RPS 1710-6 09:10
Ultrasound evaluation of subdeltoid fluid collection and supraspinatus tendon thickness after surgical repair of the supraspinatus tendon and correlation with clinical results

RPS 1710-7 09:16
Semi-dynamic MRI of the extensor digitorum tendons in Jaccoud arthropathy
T. P. E. Kirchgesner1, M. Stoenoiu, N. Michoux, X. Libouton, F. Housiau, B. Vande Berg; Brussels/BE

RPS 1710-8 09:22
Assessment of cartilage disorders after distal radius fracture using biochemical and morphological non-enhanced magnetic resonance imaging

RPS 1710-9 09:28
Defining the normal reference range for the cross-sectional area of the median nerve at the wrist and forearm using high-resolution ultrasonography in asymptomatic Asian adults
M. Rauf, F. Raza, R. Nazir, B. Yawar Faiz, R. Aqeel; Islamabad/PK

RPS 1710-10 09:34
Direct visualisation of finger flexor pulley injuries at 3T and 7T MRI: an ex vivo feasibility study
R. Heil1, C. Lutter2, R. Janka1, M. Uder1, V. Schöffl1, F. W. Roemer1, T. Bayer1; 1Erlangen/DE, 2Rostock/DE, 3Bamberg/DE

RPS 1710-11 09:40
Low-dose CT scanning of the clavicle for age estimation: loss of confidence?
S. Gassenmaier, J. F. Schäfer, K. Nikolaou, I. Tsiflikas; Tübingen/DE

RPS 1710-12 09:46
Significant differences in dynamic contrast-enhanced perfusion MRI of healthy regions and histologically confirmed medication-related osteonecrosis of the jaw
F. A. Huber, S. Morgenroth, P. Schumann, N. J. Rupp, R. Guggenberger; Zurich/CH

RPS 1710-13 09:52
The value of the frontonasal suture as a specific personal identification: evaluation on three-dimensional cinematic rendering computed tomography images
N. Pattamapaspong, S. Chumsaengri, S. Ruengdit, C. Madla, K. Mekjaidee, S. Prasitwattanaseeree, P. Mahakkanukrauh; Chiang Mai/TH

10:30 - 12:00 Room X

Breast

RPS 1802
Breast cancer treatment monitoring
Moderators:
M. A. Orsi, Milan/IT
R. M. Lorente Ramos; Madrid/ES

RPS 1802-1 10:30
Selective axillary dissection after neoadjuvant chemotherapy in patients with lymph node positive breast cancer (CLYP study): interim report of a prospective study
C. M. L. Trombadore1, R. Reilla, M. Conti, E. Buri, M. Romani, L. Zagaria, G. Franceschini, P. Belli, R. Manfredi; Rome/IT

RPS 1802-2 10:36
Evaluation of longer duration use of wire-free SCOUT 31-516 days prior to surgery of breast and axillary lesions in neoadjuvant chemotherapy patients: a pilot study
M. K. Haynes, H. Wright, E. Bloomquist; Hollywood, FL/US

RPS 1802-3 10:42
DWI-based response evaluation after neoadjuvant systemic treatment of breast cancer: comparison with RECIST-based criteria
M. K. Hayes, H. Wright, E. Bloomquist; Hollywood, FL/US

RPS 1802-4 10:48
DWI-based response evaluation after neoadjuvant systemic treatment of breast cancer: comparison with RECIST-based criteria
M. K. Hayes, H. Wright, E. Bloomquist; Hollywood, FL/US

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RPS 1802-5 10:54
Muscle mass loss after neoadjuvant chemotherapy in breast cancer: estimation on breast magnetic resonance imaging using pectoralis muscle area
F. Rossi, L. Torri, S. de Giorgis, M. Calabrese, A. Tagliafico; Genoa/IT

RPS 1802-6 11:00
The value of different tumour regression of MRI in evaluating the efficacy of neoadjuvant chemotherapy for breast cancer
X. Mei, J. Ma, X. Lin, C. Yi; Shenzhen/CN

RPS 1802-7 11:06
The combined use of ADC with DCE-MRI in early assessing of response to neoadjuvant chemotherapy in patients with breast invasive ductal carcinomas
L. Liu, W. Peng, B. Yin, J. Gu; Shanghai/CN

RPS 1802-8 11:12
Impact of pathologic complete response definition on MRI diagnostic performance after neoadjuvant systemic therapy
D. A. Hashem, M. T. El-Diasty, A. Khazindar, A. Abusanad, S. Bakhsh, A. Bin Mahfuoz; Jedda/SA

RPS 1802-9 11:18
Early prediction of axillary lymph node metastasis and their response to neoadjuvant systemic therapy with 18F-FDG PET/CT in breast cancer patients
C. M. de Mooij, C. Mitea, F. Mottaghy, M. B. I. Lobbes, M. Smidt, T. van Nijnatten; Maastricht/NL

RPS 1802-10 11:24
MRI response evaluation after neoadjuvant chemotherapy: what are the factors of radiologic-pathologic discordance?
S. Melvutoglu, O. Aslan, I. G. Bilgen, A. O. Oktay Alfatli; Izmir/TR, Bornova-Izmir/TR

RPS 1802-11 11:30
Assessment of the usefulness of monitoring tumour volume and stiffness in evaluating neoadjuvant chemotherapy treatment responses in breast cancer
K. S. Dobruch-Sobczak, H. Piotrzkowska-Wróblewska, Z. Klimoda, J. Litniewski; Warsaw/PL

RPS 1802-12 11:36
Breast MRI affects overall survival but not disease-free survival in breast cancer patients: a retrospective population-based study

RPS 1802-13 11:42
The accuracy of a MRI scan for the prediction of pathological response (pCR) in neoadjuvant chemotherapy (NACT)
E. Giannotti, P. M. Moseley, T. Abdelsaada, J. Walker, K. D. Jethwa, S. Chan, Nottingham/UK

RPS 1802-14 11:48
Bone marrow signal intensity on breast MRI in women with breast cancer
I. Bokov, P. M. Sklar Levy, D. M. Ben-David, D. O. Haisraely; Rehovot/IL, Ramat Gan/IL

RPS 1802-15 11:54
Which MRI morphologic criteria can better predict the response after neoadjuvant chemotherapy (NAC) in axillary lymph nodes (ALN)?
V. Ruggeri, M. Durando, G. Mariscotti, E. Regini, G. Bartoli, I. Castellano, P. Fonio; Turn/IT

RPS 1802-5 10:54
Muscle mass loss after neoadjuvant chemotherapy in breast cancer: estimation on breast magnetic resonance imaging using pectoralis muscle area
F. Rossi, L. Torri, S. de Giorgis, M. Calabrese, A. Tagliafico; Genoa/IT

RPS 1802-6 11:00
The value of different tumour regression of MRI in evaluating the efficacy of neoadjuvant chemotherapy for breast cancer
X. Mei, J. Ma, X. Lin, C. Yi; Shenzhen/CN

RPS 1802-7 11:06
The combined use of ADC with DCE-MRI in early assessing of response to neoadjuvant chemotherapy in patients with breast invasive ductal carcinomas
L. Liu, W. Peng, B. Yin, J. Gu; Shanghai/CN

RPS 1802-8 11:12
Impact of pathologic complete response definition on MRI diagnostic performance after neoadjuvant systemic therapy
D. A. Hashem, M. T. El-Diasty, A. Khazindar, A. Abusanad, S. Bakhsh, A. Bin Mahfuoz; Jedda/SA

RPS 1802-9 11:18
Early prediction of axillary lymph node metastasis and their response to neoadjuvant systemic therapy with 18F-FDG PET/CT in breast cancer patients
C. M. de Mooij, C. Mitea, F. Mottaghy, M. B. I. Lobbes, M. Smidt, T. van Nijnatten; Maastricht/NL

RPS 1802-10 11:24
MRI response evaluation after neoadjuvant chemotherapy: what are the factors of radiologic-pathologic discordance?
S. Melvutoglu, O. Aslan, I. G. Bilgen, A. O. Oktay Alfatli; Izmir/TR, Bornova-Izmir/TR

RPS 1802-11 11:30
Assessment of the usefulness of monitoring tumour volume and stiffness in evaluating neoadjuvant chemotherapy treatment responses in breast cancer
K. S. Dobruch-Sobczak, H. Piotrzkowska-Wróblewska, Z. Klimoda, J. Litniewski; Warsaw/PL

RPS 1802-12 11:36
Breast MRI affects overall survival but not disease-free survival in breast cancer patients: a retrospective population-based study

RPS 1802-13 11:42
The accuracy of a MRI scan for the prediction of pathological response (pCR) in neoadjuvant chemotherapy (NACT)
E. Giannotti, P. M. Moseley, T. Abdelsaada, J. Walker, K. D. Jethwa, S. Chan, Nottingham/UK

RPS 1802-14 11:48
Bone marrow signal intensity on breast MRI in women with breast cancer
I. Bokov, P. M. Sklar Levy, D. M. Ben-David, D. O. Haisraely; Rehovot/IL, Ramat Gan/IL

RPS 1802-15 11:54
Which MRI morphologic criteria can better predict the response after neoadjuvant chemotherapy (NAC) in axillary lymph nodes (ALN)?
V. Ruggeri, M. Durando, G. Mariscotti, E. Regini, G. Bartoli, I. Castellano, P. Fonio; Turn/IT

RPS 1803 Myocarditis and MINOCA syndromes

RPS 1803-1 10:30
Right ventricular myocarditis: the great imitator of cardiac magnetic resonance. A retrospective histologically-based comparison with ARVC
F. Cilia, N. Galea, L. Marchitelli, G. Cundari, G. Mancuso, G. Pambianchi, I. Carbone, C. Catalano, M. Francone; Rome/IT

RPS 1803-2 10:36
Non-contrast enhanced diagnosis of acute myocarditis based on the T1-segment heart model using 2D-feature tracking magnetic resonance imaging

RPS 1803-3 10:42
Tissue characterisation by parametric mapping and strain cardiac magnetic resonance for the detection and monitoring of myocardial injury in fulminant myocarditis
H. Li, H. Zhu, L. Xia; Wuhan/CN

RPS 1803-4 10:48
Mapping cardiac magnetic resonance (CMR) for early prediction of unfavourable left ventricle remodelling in acute myocarditis: a MIAMI study

RPS 1803-5 10:54
Agreement between old and new Lake Louise criteria for the diagnosis of acute myocarditis with a different clinical onset
G. Cundari, G. de Rubeis, A. Ascione, S. Coco, F. Catapano, F. Cilia, N. Galea, C. Catalano, M. Francone; Rome/IT

RPS 1803-6 11:00
Early T1 shortening (eT1sh): a new CMR parameter to detect myocardial hyperemia in acute myocarditis

RPS 1803-7 11:06
Derived-CMR strain efficacy in myocardial inflammation: a retrospective comparison with standard practice
P. Palumbo, C. de Cataldo, S. Torlone, G. Campidoglio, F. Cobianchi Bellisari, F. Sgalambro, S. Necozione, E. Di Cesare, C. Masiocchi; L’Aquila/IT

RPS 1803-8 11:12
Coronary inflammation by CT pericoronary fat attenuation in MINOCA and Takotsubo syndrome
N. Gaibazzi, C. Martini, A. Botti, A. Pinazzi, B. Bottazzi, A. Palumbo; Parma/IT

RPS 1803-9 11:18
Differentiating chronic myocarditis from non-ischemic dilated cardiomyopathy using segmental T1 mapping
M. T. A. Wetscherek, C. Lücke, P. Kurz, M. Gutberlet; Cambridge/UK, Leipzig/DE

RPS 1803-10 11:24
A multiparametric native CMR approach to acute and chronic cardiac diseases with increased myocardial mass using mapping and feature-tracking strain
M. C. Haffmann, S. Benz, C. Düber, R. Kloekner, T. Muenzel, P. Wenzel, K.-F. Kreitner, T. Emrich; Mainz/DE
RPS 1803-11 11:30
Gender-neutral FT-CMR strain ratios improve the discriminatory accuracy in acute and chronic heart conditions
M. C. Halfman1, S. Benz, C. Düber, R. Kloechner, T. Muenzel, P. Wenzel, K.-F. Kreitner, T. Emrich; Mainz/DE

RPS 1803-12 11:36
The prevalence and spectrum of cardiovascular MR features of myocardial infarction with non-obstructed coronary arteries: first results from the First Moscow City Hospital registry
E. Pershina, V. E. Sinitsyn, A. Shilova, D. Shchekochikhin, M. Gilyarov, A. Nesterov, A. Svet; Moscow/RU

RPS 1803-13 11:42
Correlation between native T1 and T2 mapping and MRI strain parameters in patients with myocarditis: a pilot study
M. Muca1, L. Pagnan2, M. G. Belgrano1, M. A. A. Cova3; Trieste/IT, 2Sgonico/IT

RPS 1803-14 11:48
Cardiac CT with triple-rule-out (TRO) and late iodine enhancement (LIE) acquisition in the evaluation of patients presenting with acute troponin elevation
D. Vignale1, A. Palmisano1, E. Boccia1, M. Gatti2, R. Faletti2, F. Moroni1, D. de Stefano3, F. de Cobelli1, A. Esposito1; 1Milan/IT, 2Turin/IT, 3Rome/IT

RPS 1803-15 11:54
Pericardial effusion is a marker of increased cardiac mortality in thalassemia major patients
A. Meloni1, L. Pistoloa2, G. Restaino2, N. Schicchi3, R. Righi4, A. Vallone5, N. Vietti Violi1, S. Lewis2, J. Liao2, M. Hulkower2, G. Hernandez Meza2, N. N. Key; 1Ancona/IT, 2Ferrara/IT, 3Catania/IT, 4San Giovanni Rotondo/IT

10:30 - 12:00 Room F2

Head and Neck

RPS 1808
Imaging of the neck: more than thyroid
Moderators:
N.N.
N. I. Traykova; Plovdiv/BG

RPS 1808-1 10:30
Multiparametric intraoral ultrasound of oral lesions: the correlation of B-mode, contrast-enhanced ultrasound, and shear-wave elastography with histopathology
M. Lu, T. Wei; Chengdu/CN

RPS 1808-2 10:36
High-resolution ultrasonography (HRUS) in periapical dental lesions
R. Rastogi, N. Jain; Moradabad/IN

RPS 1808-3 10:42
B-mode, colour Doppler, and shear-wave elastography ultrasound features to predict cervical traumatisms in patients with lateral neck dissection in thyroid cancer patients: a cross-sectional study

RPS 1808-4 10:48
Role of B-scan USG as a primary tool in closed globe ocular blunt trauma and correlation with ophthalmoscopy and intraoperative observations: a study from a resource-poor hospital in rural India
S. Ghosh; J. Bardhan, A. Mondal, T. Dhibar; Birbhum/IN, 2Kolkata/IN, 3Kolkata/IN

RPS 1808-5 10:54
A 2-year retrospective analysis of the diagnostic performance of core-needle biopsy (CNB) versus fine-needle aspiration cytology (FNAC) in the evaluation of parotid gland lesions
S. Saloojee, F. Hosseini-Ardehali; London/UK

RPS 1808-6 11:00
The added value of multiparametric ultrasonography in primary hyperparathyroidism: correlation with sцинтиграфія and histology
S. Pavlovics, M. Radzina, A. Ozolins, Z. Narbuts, P. Prieditis, M. Tirane; Riga/LV

RPS 1808-7 11:06
Predictive value of head and neck CT arteriography in the intraoperative bleeding volume of carotid body tumours
Y. Cheo, T. Su, H. Liu, Z. Jin, Z. Zhang, Y. Qi, J. Wang; Beijing/CN

RPS 1808-8 11:12
Characterisation of head and neck paragangliomas by multiparametric MR imaging: a comparison with other deep soft-tissue tumours of the neck
E. Arsovica, S. Akkari, U. Scemama, M. Montova, J. P. Lavielle, N. Fakhry, J. C. Armand-Perrin; Paris/FR

RPS 1808-9 11:18
Abbreviated MRI protocol in head and neck imaging: an alternative approach in the imaging of tumours in the head and neck of patients with surgically resected tumours

RPS 1808-10 11:24
Clinical assessment of metal artefact reduction methods in dual-energy CT in head and neck CT examinations
L. Xing, Zhengzhou/CN

RPS 1808-12 11:30
Dual-layer CT-derived 3-dimensional iodine quantification for inherent iodine of thyroid parenchyma: clinico-pathologic correlation and phantom validation
Y. H. Lee; Ansan-Si/KR

RPS 1808-13 11:36
Evaluation of the role of dual-energy computed tomography (DECT) in thyroid nodules
S. Sagar, A. Kumar, N. Khandelwal, N. Panda, P. Dey, U. Nahar; Chandigarh/IN

RPS 1808-14 11:42
Can morphological analysis be useful for the detection and characterisation of adenomas in parathyroid MRI?
C. Z. Karaman, V. S. Öz turf, O. Abdullayev; Aysdin/TR

RPS 1808-15 11:48
Advanced visualisation of peroneal artery perforators prior to autologous transplantation in head and neck surgery by dual-energy CTA and semiautomatic vessel unfolding
M. Wiesmüller, W. Wuest, R. Heiss, C. Treutlein, M. Uder, M. S. May; Erlangen/DE
RPS 1816-4 10:48
Subcentimeter hepatocellular carcinoma in treatment-naïve patients: non-invasive diagnostic criteria and tumour staging on gadoxetic acid-enhanced MRI
M.-S. Park1; S. H. Hwang1; S. Park1; S. Y. Kim1; 1Seoul/KR; Goyang-si, Gyeonggi-do/KR

RPS 1816-5 10:54
Does LI-RADS v2018 add significant diagnostic value over LI-RADS v2017 in the categorisation of hepatic observation?
M. A. A. Bashâa1, S. Abdelaziz Aly1; Zagazig, AL/EG, 2Benza/EG

RPS 1816-6 11:00
The prognostic value of LI-RADS classification in patient candidates for orthotopic liver transplantation
L. Vincenti1, A. Coppola1, G. Platania1, D. Volterra1, D. Ricci1, M. Pecorilla1, C. Sgrazzutti1, A. Vanzulli1; Milan/IT, 2Cava De’ Tirreni/IT, 3Gravina Di Catania/IT, 4Segrate/IT

RPS 1816-7 11:06
Contrast-enhanced ultrasound adds value to the differentiation of hepatocellular endocrine neoplasms from hepatocellular carcinomas
J. Huang1, X. Xie; Guangzhou/CN

RPS 1816-8 11:12
The development and validation of a radiomics nomogram for predicting transatheral arterial chemoembolisation refractoriness of hepatocellular carcinoma
J. S. Kim1, H. Sheen1, J. K. Lee1, S. Y. Baek1; Seoul/KR

RPS 1816-9 11:18
Gadoxetic acid MRI for the assessment of HCC response to Yttrium 90 radioembolisation: correlation with histopathology
N. Vietti Violi1, S. Hectoris1, J. Gnerre2, A. Law3, M. I. Fiel1, B. Taoulili1; ‘Lausanne/CH, 1New York, NY/US

RPS 1816-10 11:24
Advanced hepatocellular carcinoma treated with sorafenib: a prediction of overall survival using an integrated model based on pretreatment CT texture features and sarcopenia
T. Polidori1, M. A. Tipaldi1, D. Caruso1, E. Ronconi1, M. Zerunian1, M. Rossi1, A. Laghi2; Rome/IT

RPS 1816-11 11:30
Molecular imaging of tumour extracellular pH in a 3D organotypic in vitro model for liver cancer
I. Schobert1, C. Hamm1, L. Adam1, J. Chapiero1, J. Duncan1, F. Hyder2, D. Coman1, L. J. Savič1; Berlin/DE, 2New Haven, CT/US

RPS 1816-12 11:36
A prospective study of 18F-FDG-PET/CT with integrated diagnostic multi-phantom contrast CT in the initial staging of hepatocellular carcinoma: the impact on staging systems
H. Abdelhalim1, M. Houseni2, M. Elshakhaw2, N. Abd Elbar3, O. Elabd1; ‘Shibin El Kom/EG, 1Shebein ElKom/EG

RPS 1816-13 11:42
The role of portal vein thrombosis in the assessment of perfusion analysis during dynamic computed tomography in patients with advanced hepatocellular carcinomas
A. Pecorelli1, D. Ippolito1; C. Maino1, G. Querques1, C. Talei Franzesi1, S. Sironi2; Monza/IT, 2Bergamo/IT

RPS 1816-14 11:48
Virtual monoenergetic images from spectral detector CT (SDCT) facilitates washout assessment in arterially hyper-enhancing liver lesions
R. P. Reimer1, N. Grosse Hokamp1, A. Fehrmann Efferoth1, A. Krauskopf1, J. R. Kröger1, T. Persisgeh1, D. Maintz1, A. Bunck1; Cologne/DE

RPS 1816-15 11:54
Intravoxel incoherent motion diffusion-weighted imaging in the differentiation of solid hepatic lesions using a volumetric approach: new frontiers!
M. Puglia1; M. A. Balí2, S. Picchia1, M. Orton1, S. Doran1, T. Fieweier1, D.-M. Koh1, G. Morana1; Pozzuoli/IT, 2Brussels/BE, 3Latina/IT, 4London/UK, 5Sutton/UK, 6Erlangen/DE, 7Ravenna/IT

RPS 1816-16 12:00
My Thesis in 3 Minutes

MyT3 18
Neuro
Moderators:
N.N.
I. Trofimenko; Moscow/RU

MyT3 18-2 10:30
Role of diffusion tensor imaging as a biomarker for cases with a history of optic neuritis in multiple sclerosis patients
M. A. S. M. Soliman, Cairo/EG

MyT3 18-4 10:34
A prospective study to evaluate the role of MRI with MR spectroscopy of ring-enhancing lesions in the brain
S. S. Tonge; Secunderabad/IN

MyT3 18-5 10:38
Genetic and environmental effects on the morphology and haemodynamics of the Circle of Willis: cross-sectional magnetic resonance angiography and transcranial ultrasound twin studies
B. Forró1; D. L. Tarnoki1, T. Horváth1, E. Medda1, C. Baracchini1, A. Sas1, C. Oláh1, L. Kostyal1, A. Tarnoki1; Budapest/HU, 2Rome/IT, 3Padua/IT, 4Miskolc/HU, 5Málvi/HU

MyT3 18-6 10:42
Discrimination of intracranial ring-enhancing lesions using diffusion-weighted imaging, MR spectroscopy and diffusion tensor imaging
M. S. A. Faragalla; Mansoura/EG

MyT3 18-7 10:46
The influence of antiretroviral therapy on brain imaging in HIV infection
E. Bakulina, T. Trofimova; St. Petersburg/RU

MyT3 18-8 10:50
Comparison of 3D DIR, 3D FLAIR and 2D FLAIR pulse sequences for imaging in demyelinating disorder (in multiple sclerosis) at 3 Tesla
K. Nekar, P. P. Wali, R. Ananthasivan, U. Acharya; Bangalore/IN

MyT3 18-9 10:54
Therapy results of pericallosal aneurysms: a retrospective uncentre study
C. Deuschl1, M. Darkwah-Opopp1, K. Wrede1, M. Forsting1, I. Wanke1; C. Mönninghoff1; Essen/DE, 2Heidelberg/DE

MyT3 18-10 10:58
High-resolution MR imaging of cortical layers and their structural alterations in stroke and epilepsy patients
E. Lotan, D. Tanne, Y. Assaf; Tel-Aviv/IL

MyT3 18-11 11:02
Application of low radiation dose combined spectrum and ASIR-V iterative reconstruction in CT scanning of ischaemic stroke: a feasibility study
Y. You; Chengdu/CN

MyT3 18-13 11:06
Imaging as the new yardstick for diagnosing peripheral mononeuropathies: a comparison between high-resolution ultrasound and MR neurography with an approach to diagnosis
A. Agarwal Chandra1, U. Jaipal, M. Bagarhatta, M. Agarwal, A. Chandra; Jaipur/IN

MyT3 18-14 11:10
Evaluation of parameter changes in lateral lumbosacral radiography of patients with and without lumbar spinal stenosis in magnetic resonance imaging (MRI)
N. Merc; G. Dündüz; Isparta/TR
MyT3 18-15 11:14
Automated quantification pipeline (AQuAPI) for the non-invasive measurement of the cerebral metabolic rates of glucose using a fully-integrated PET/MRI
I. K. Shyam Sundar1, O. Muzik2, I. Rausch3, M. Hienert4, E. Patarai5, E.-M. Klebermass6, T. Traub-Weidinger7, T. Beyer7, M. Bauer7; 1Vienna, AT, 2Detroit, MI/US

MyT3 18-16 11:18
Value of routine T1WI histogram in differential diagnosis of glioblastoma
Z. Ma, X. Zhao; Zhengzhou/CN

MyT3 18-17 11:22
Compare the characteristics of different types of spontaneous intracranial artery dissection on high-resolution MRI vessel wall imaging
B. Tian, X. Tian, Z. Shi, J. Lu; Shanghai/CN

MyT3 18-18 11:26
Brain MRI follow-up in children with tuberous sclerosis complex: is gadolinium enhancement always necessary?
A.-L. Gaillard1, J.-F. Chatel1, M. Havez-Enjolras1, A. Crombe2, P. Bessou2; 1Saint-Maur-Des-Fossés/FR, 2Bordeaux/FR, 3Mérignac/FR

MyT3 18-19 11:30
Role of transcranial ultrasound with Doppler and strain elastography in neonatal hypoxic-ischaemic encephalopathy with magnetic resonance imaging as the gold standard
A. Singh, U. Jaipal, D. A. Bhandari; Jaipur/IN

MyT3 18-20 11:34
Correlation of childhood head injury with clinical and imaging characteristics of Dyke-Davidoff-Masson syndrome
F. Y. Chew, C. Y. Song, W.-C. Shen, Y.-F. Chen; Taichung/TW

10:30 - 12:00 Room G

Vascular

RPS 1815
MR in vascular imaging
Moderators:
S. Haneder; Cologne/DE
N.N.

RPS 1815-K 10:30
Keynote lecture
N.N.

RPS 1815-1 10:40
A comparison of time-of-flight MR angiography with sparse undersampling with TOF-MRA in the evaluation of intracranial aneurysms: digital subtraction angiography as a reference standard
X. Xu, W. Peng, C. Xia, Z. Li; Chengdu/CN

RPS 1815-2 10:46
Quantification of the gradient of lumen narrowing of the internal carotid artery on an atherosclerotic plaque from magnetic resonance angiography for the stratification of the risk of cerebral stroke
W. Y. Ussov1, A. Maksimova1, V. E. Sinitsyn1, S. R. Yaroshovsky1, E. E. Bobriko1, O. Beilchenko1; 1Tomsk/RU, 2Moscow/RU

RPS 1815-3 10:52
A combination method of non-enhanced 3D-TOF MRA, 3D pCASL, and 3D t-ASL: a new quantitative assessment of territorial perfusion shifts and territorial CBF changes in MMD pre-and post-surgery
X. Gao, J. Sun, D. Ma; Hangzhou/CN

RPS 1815-4 10:58
The benefits of time-resolved imaging (TRI) in May Thurner syndrome (MTS): a correlation with the degree of iliac vein compression
D. M. D. Araujo1, M. D. P. Estrela1, M. M. Filisbin1, A. Skaf1, S. D. T. O. Cantoni1, F. H. C. Souza1, L. E. C. Paiva1, H. Leao Filho1; 1São Paulo/BR, 2Barretos/BR

RPS 1815-6 11:04
A comparison of non-contrast 2D-bSSFP MRI sequence in Marfan patients at 1.5T and 3T: the influence of image quality, discrimination of the aortic wall, and aortic surgery on aortic diameter measurements
M. Avanesov1, J. M. Weinrich1, M. Sinn1, A. Lenz1, F. von Düring1, M. L. Warncke1, E. Tahir1, G. Adam1, P. Bannas1; Hamburg/DE

RPS 1815-7 11:10
Loss of kinetic energy over the aortic arch after surgical repair of acute aortic dissection: a prospective 4D flow study
T. Emrich1, N. Ring1, C. Bussalb1, C. Noll1, M. Thalheimer1, M. C. Halfmann1, C. Düber1, K.-F. Kreitner1, D. S. Dohle1; Mainz/DE

RPS 1815-8 11:16
Non-contrast self-navigated 3D whole-heart MR angiography: performance in aortic root evaluation prior to transcatheter aortic valve intervention
M. J. Pamminger1, C. Kranewitter1, C. Kremsier1, B. Henninger1, G. Reiter1, D. Piccini2, G. Klug1, A. Mayr1; 1Innsbruck/AT, 2Graz/AT, 3Lausanne/CH

RPS 1815-9 11:22
The role of time-resolved magnetic-resonance-angiography (TRMRA) in the characterisation of soft-tissue vascular anomalies (VA)
A. Sangwan1, A. Goyal1, A. Kumar1, R. Sharma1, D. Kandasamy1, A. S. Bhalla1, D. S. Arava1, D. M. Singhal1, D. R. Dawar1; New Delhi/Delhi/IN

RPS 1815-10 11:28
Time-resolved contrast-enhanced magnetic resonance angiography in patients with congenital heart disease: image quality using two different doses of a contrast agent
C. B. Monti1, G. Dellaferera1, M. Zanardo1, D. Capra1, A. Cozzi1, F. Sardanelli1, F. Secchi1; Milan/IT

RPS 1815-11 11:34
The influence of the pulses and flip angle on the quality of the non-enhanced renal arterial MR images
Y. Wang1, F. Hu1, S. Yan1, D. Ren1; Chengdu/CN

RPS 1815-12 11:40
Free-breathing fast low-angle shot quiescent-interval slice-selective MR angiography for the improved detection of vascular stenoses in the pelvis and abdomen
A. Varga-Szemes1, E. A. Ahern1, U. J. Schoepf1, T. Todoran1, I. Koktzoglou1, R. Edelman1; Charleston, SC/US, 2Dublin/IE, 3Evanson/US, 4Illinois/US

RPS 1815-13 11:46
Stent lumen visualisation and quantification with magnetic particle imaging: a systematic in vitro study with 21 endovascular stents
F. Wegner1, A. von Gladiss1, J. Haegele2, U. Grzyska1, M. M. Sieren1; Neuss/DE

RPS 1815-14 11:54
Automated scan range delimitation in CT topogram images of the chest
K. L. Shiyam Sundar1, O. Muzik2, I. Rausch3, M. Hienert4, E. Patarai5, E.-M. Klebermass6, T. Traub-Weidinger7, T. Beyer7; 1Vienna, AT, 2Detroit, MI/US, 3Tomsk/RU, 4Moscow/RU, 5Tomsk/RU, 6Detroit, MI/US

10:30 - 12:00 Tech Gate Auditorium

Artificial Intelligence and Machine Learning

RPS 1805
Deep learning based scanning, image reconstruction, and quality assurance
Moderators:
R. Miron Mombiela; Herlev/DK
A. Trianni; Udine/IT

RPS 1805-K 10:30
Keynote lecture
V. Gershatsky; Skopek/MK

RPS 1805-1 10:40
Automatic scan range delimitation in CT topogram images of the chest using deep learning
K. S. Moon, A. Demircioglu, L. Umutlu, K. Nassenstein; Essen/DE
RPS 1805-2 10:46
Elevating clinical brain and spine MR image quality with deep learning reconstruction

RPS 1805-3 10:52
The effect of deep learning reconstruction on image quality in chest CT

RPS 1805-4 10:58
The effect of deep learning reconstruction on image quality in abdominal CT

RPS 1805-5 11:04
High resolution T2-weighted MRI of the abdomen using deep learning reconstruction
S. Funayama1, T. Wakayama2, R. Lebel3, D. Tamada1, H. Onishi1, U. Motosugi1; 1Yamanashi/JP, 2Hino/JP, 3Waukesha/US

RPS 1805-6 11:10
Influence of a novel deep learning noise reduction technology on filtered back-projected CT images in comparison to iterative reconstruction

RPS 1805-7 11:16
Deep learning reconstruction in ultra-low-dose abdominal CT: comparison with hybrid-iterative reconstruction
P. Rogalla1, S. Kandel2, B. E. Hoppel3; 1Toronto, ON/CA, 2Berlin/CA, 3Vernon Hills, WI/US

RPS 1805-8 11:22
Objective and qualitative IQ analyses of deep learning image reconstruction in multiphasic CT imaging of the liver: a patient and phantom study
F. Legou1, P. Roux1, V. Barrau1, H. Pasquier2, C. Legoff2, M. Milliner2, J.-L. Sabilrolles1; 1Saint Denis/FR, 2Buc/FR, 3Creteil/FR

RPS 1805-9 11:28
Evaluation of automated quality control of multicentre clinical trial CT data using spine localisation based on a machine learning method
S. Lee1, C. Page2, P. Galette3, P. Murphy2, B. Glocker1; 1London/UK, 2Stevenage/UK, 3Upper Providence/US

RPS 1805-10 11:34
Artificial intelligence for image-quality control of chest radiographs
K. I. Nousiainen, T. Mäkelä, A. Pillonen, J. I. Peltonen; Helsinki/FI

RPS 1805-11 11:40
Adaptive versus fixed artificial intelligence (AI)-based preprocessing for noise reduction applied to routine non-contrast computed tomography scans
C. T. Whittle1, A. Hasegawa2, J. Tan1, R. Neelmegh1, J. Vij1; 1Winston-Salem, NC/US, 2Chapel Hill/US, 3Sunnyvale/US

RPS 1805-12 11:46
Towards AI models that retain accuracy in the real world: a slice-level head CT artefact detector improves the performance of deep learning models
M. Maniparambil1, S. Chilamkurthy1, S. Tanamaia1, M. Biviji2, P. Rao2; 1Mumbai/IN, 2Nagpur/IN

RPS 1805-13 11:52
Deep learning-based reduction of moving CT metal artefacts
T. Lossau, H. Nickisch, T. Wissel, S. Hakmi, A. Saalbach, C. Spink, M. Morlock, M. Grass; Hamburg/DE
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