Scientific Programme

The annual meeting of
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 and
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

Expo Gallery (First Level)
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
LEVEL III Subspecialty training standard

Scientific Programme | ECR 2020 | 3
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 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.

I would like to extend a special welcome to the thousands of industry representatives joining 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 Janjani 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
Foreword by the ESR President

ESR President Boris Brkljačić is professor of radiology and vice-dean at the University of Zagreb School of Medicine and chair of the Department of Diagnostic and Interventional Radiology of University Hospital ‘Dubrava’ in Zagreb, Croatia.

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 Beadamore. For ECR 2020, we will also have seven radiographers’ Research Presentation sessions, one radiographers’ Research Presentation 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 18 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 Lounge, 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; Umeå/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. PARIZEL**  
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)
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 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) 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.

myESR.org/app

exclusively sponsored by SIEMENS Healthineers
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 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 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. connect.myESR.org

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 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. www.myESR.org/smarttag smarttag@myESR.org In case you have any questions, please visit the Helpdesk in the entrance hall of the ACV.

‘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.
**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 Motto 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. Please refer to 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 different levels defined by the ESR European Training Curriculum for Radiology (ETC).

The E3 programme consists of the following five branches, which reflect 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
- Advanced Courses
- ECR Master Classes

The Rising Stars Programme is designed especially for residents, students, radiographers and trainee radiographers.

It consists of Basic Sessions (jointly organised by the ESR, ESOR and EFRS), Student Sessions, Case-Based Diagnosis Training, and the Radiology Trainees Forum Programme including the RTF Highlighted Lectures and the RTF Quiz.

The European Diploma Prep Sessions aim to prepare prospective candidates for the European Diploma in Radiology (EDiR).

They are also suitable for residents who want an overview of the various topics relevant to imaging and for those preparing for their national board examinations.

The content of the programme reflects Levels I+II of the ESR European Training Curriculum for Radiology (ETC). The sessions are held in close cooperation with the European Board of Radiotherapy (EBR).

The Beauty of Basic Knowledge 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
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 (ESHIMT)**, 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 ESHIMT, 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](http://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.

**RADIOGRAPHERS’ LOUNGE**

Visit the Radiographers’ Lounge on the 2nd level (next to Room C) to meet and network with your colleagues. Around 20 radiographer societies including the EFRS are represented at the Lounge with their booths.

**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’.

VOICE OF EPOS SESSIONS
Authors of the best posters will present their work in person. Sessions are grouped by topic or language/region and take place on five different stages in and around the EPOS Lounge on the 1st level, from Wednesday to Sunday. One stage is exclusively dedicated to radiographers. Please refer to pages 201–210 for the programme of the sessions.

TRANSLATIONAL COURSE
ECR 2020 features again the joint course of the ESR and RSNA (Radiological Society of North America). This ‘Transatlantic Course’ will focus on stroke imaging and endovascular treatment. The sessions will be partly interactive. Please refer to pages 101–102 for the course’s programme.
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.
CME AT ECR 2020

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.
» 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
2 - SECOND LEVEL

Floor Plans

Meeting Rooms
EFRS

RADIOGRAPHERS' LOUNGE

Meeting Room ISSRT

Meeting Room ESUR

Meeting Room EFRS

Research Hub EFRS

Research Hub EFRS

MEETING ROOM

MEETING ROOM

MEETING ROOM

MEETING ROOM

MEETING ROOM

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MEETING ROOM

MEETING ROOM

ESOR LOUNGE

Café 1

Lounge ESRG

Lounge ESGAR
3 – THIRD LEVEL

- Executive Lounge
- Board Meeting Room 1
- President’s Office
- Board Chair’s Office
- Offices 3.43 – 3.46
- Offices 3.77 – 3.78
- AV
0 - ENTRANCE 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

available via the ECR 2020 App: myESR.org/app
ESR DIGNITARIES
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 Barreda 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 Radiologia 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 Diagnostico 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.
ESR Dignitaries

**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 the **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.

**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.
In recognition of his pioneering work in interventional radiology and outspoken advocacy for 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 revascularisation.

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.

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, Nuuklearmedicin, 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.
BERND MONTAG
Erlangen, Germany
PLENARY LECTURER

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 (SGL).

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

NENAD ŠESTAN
New Haven, CT/US
PLENARY LECTURER

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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E³ – European Diploma Prep Sessions ........................................ Raffaella Basilico; Chieti/IT
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Breast ................................................................. Karen Kinkel; Chêne-Bougeries/FR
Pancreas ........................................................................ Ricardo Manfredi; Rome/IT

Interactive Teaching Sessions for Young (and not so Young) Radiologists .... Eva Castañer; Sabadell/ES
Artificial Intelligence .................................................................. Wiro J. Niessen; Rotterdam/NL
Hot Topics in GU Cancer ............................................................... Andrea G. Rockall; London/UK
How to Improve Your Expertise in Cardiothoracic Imaging .............. Igor E. Tyurin; Moscow/RU
Hot Topics in Emergency Radiology ........................................... Stefan Wirth; Munich/DE

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

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<thead>
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<th>Stéphanie Franchi-Abella; Le Kremlin-Bicêtre/FR</th>
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<tr>
<td>Members:</td>
<td>Ignasi Barber; Esplugues de Llobregat/ES</td>
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<td>Charlotte E. de Lange; Oslo/NO</td>
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<td>Nadica Mitreska; Skopje/MK</td>
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The ESR would like to thank the **CIRSE** for their cooperation on this subcommittee

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<th>Florian Wolf; Vienna/AT</th>
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<td>Gunnar Sandbaek; Oslo/NO</td>
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<td>Maria Tsitskari; Athens/GR</td>
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<th>Mika Kortesniemi; Helsinki/FI</th>
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<td>Osvaldo Rampado; Turin/IT</td>
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<th>Luis Martí-Bonmati; Valencia/ES</th>
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<td>Barbara Kraus; Vienna/AT</td>
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<td>Nejc Mekis; Ljubljana/SI</td>
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<td>Louise A. Rainford; Dublin/IE</td>
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<th>Katarzyna Katulska; Poznan/PL</th>
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<td>Francesca Iacobellis; Naples/IT</td>
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<td>Koenraad H. Nieboer; Brussels/BE</td>
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<td>Mari Nummel; Helsinki/FI</td>
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<td>Michael K. Scherr; Munich/DE</td>
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Basic Sessions jointly organised with the EFRS
(European Federation of Radiographer Societies) ..................................
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Vibeka Logager; Copenhagen/DK
Case-Based Diagnosis Training ...................... Klaus M. Friedrich; Vienna/AT
Soraya Robinson; Vienna/AT

E3 – European Diploma Prep Sessions
.................................. Raffaella Basilico; Chieti/IT

E3 – The Beauty of Basic Knowledge
Breast .................................. Karen Kinkel; Chêne-Bougeries/FR
Pancreas .................................. Ricardo Manfredi; Rome/IT

E3 – Advanced Courses
Interactive Teaching Sessions for Young
(and not so Young) Radiologists .............. Eva Castañer; Sabadell/ES
Artificial Intelligence .......................... Wiro J. Niessen; Rotterdam/NL
Hot Topics in GU Cancer ................... Andrea G. Rockall; London/UK
How to Improve Your Expertise
in Cardiothoracic Imaging .................. Igor E. Tyurin; Moscow/RU
Hot Topics in Emergency Radiology ........ Stefan Wirth; Munich/DE

E3 – Master Classes
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(Radiological Society of North America):
STROKE IMAGING AND ENDOVASCULAR TREATMENT:
NOW AND THE FUTURE
.................................. Jean-Pierre Pruvo; Lille/FR
.................................. Raman Uberoi; Oxford/UK
.................................. Achala Vagal; Cincinnati, OH/US

PROS AND CONS SESSION
Breast cancer: to screen or not to screen? .................................. Fiona J. Gilbert; Cambridge/UK

HANDBS-ON WORKSHOPS
MRI of the Prostate ........................ Patrick Asbach; Berlin/DE
.................................................................... Bernd Hamm; Berlin/DE
MRI of the Pelvic Floor ...................... Rania Farouk El Sayed; Cairo/EG
Ultrasound .................................... Liat Appelbaum; Jerusalem/IL
.................................................................... Vito Cantisani; Rome/IT
.................................................................... Caroline Ewertsen; Copenhagen/DK
.................................................................... Adrian K.P. Lim; London/UK

CLINICAL TRIALS IN RADIOLOGY
.................................. Marc Dewey; Berlin/DE

MY THESIS IN 3 MINUTES
.................................. Marc Dewey; Berlin/DE
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
### Programme Overview

**Wednesday, March 11**

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<th>Programme Overview</th>
<th>Voice of EPOS Sessions</th>
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<td><strong>E 126</strong></td>
<td>10:00 - 11:30</td>
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<td><strong>E 127</strong></td>
<td>11:30 - 13:00</td>
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<td><strong>E 128</strong></td>
<td>13:30 - 15:00</td>
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<td><strong>E 129</strong></td>
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**Technical Exhibition:**
- **EXPO Gallery (First Level):** 10:00 - 17:00
- **EXPO Halls and EXPO Foyer D:** 10:00 - 17:00

**Not CME accredited**

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**Wednesday, March 11**

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</tbody>
</table>

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

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# Programme Overview

## Thursday, March 12

<table>
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<th>Room</th>
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<th>Topic</th>
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<tr>
<td><strong>Room C</strong></td>
<td><strong>8:30-10:00</strong></td>
<td>Lung nodules: management in 2020</td>
</tr>
<tr>
<td><strong>Room O</strong></td>
<td><strong>8:30-10:00</strong></td>
<td>Joint Session of the ESR and EFLM: Integrated diagnostics: are we ready for it?</td>
</tr>
<tr>
<td><strong>Room X</strong></td>
<td><strong>8:30-10:00</strong></td>
<td>Professional Challenges Session</td>
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<tr>
<td><strong>Darwin (Room D2)</strong></td>
<td><strong>9:30-10:00</strong></td>
<td>ISFRT meets Japan</td>
</tr>
<tr>
<td><strong>Room M1</strong></td>
<td><strong>9:30-10:00</strong></td>
<td>Visibility of imaging professionals in the EU</td>
</tr>
<tr>
<td><strong>Room A</strong></td>
<td><strong>10:30-11:00</strong></td>
<td>Imaging at a different scale: the wild lives of our cells</td>
</tr>
<tr>
<td><strong>Room C</strong></td>
<td><strong>11:00-12:30</strong></td>
<td>Addressing challenges in imaging of larger patients</td>
</tr>
<tr>
<td><strong>Room D1</strong></td>
<td><strong>14:00-15:30</strong></td>
<td>How radiologists can help the infertile couple</td>
</tr>
<tr>
<td><strong>Coffee &amp; Talk 3</strong></td>
<td><strong>14:00-15:30</strong></td>
<td>Coffee &amp; Talk (open forum) Session</td>
</tr>
<tr>
<td><strong>Darwin (Room D2)</strong></td>
<td><strong>14:00-15:30</strong></td>
<td>Special Focus Session: Breast Cancer Treatment for Non-Cancer Radiologists</td>
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<tr>
<td><strong>Room G</strong></td>
<td><strong>14:30-15:00</strong></td>
<td>Multidisciplinary Session: Multidisciplinary team for breast cancer</td>
</tr>
<tr>
<td><strong>Room K</strong></td>
<td><strong>16:00-16:30</strong></td>
<td>Liver transplantation in patients with hepatocellular carcinoma: a multidisciplinary approach</td>
</tr>
<tr>
<td><strong>Room O</strong></td>
<td><strong>16:00-17:30</strong></td>
<td>Medico legal dilemmas in paediatric medicine</td>
</tr>
<tr>
<td><strong>Room A</strong></td>
<td><strong>17:00-18:00</strong></td>
<td>Radiology in Israel: technology and professionalism</td>
</tr>
<tr>
<td><strong>Darwin (Room D2)</strong></td>
<td><strong>17:00-18:00</strong></td>
<td>Radiology professional performance and future challenges in Japan</td>
</tr>
<tr>
<td><strong>Descartes (Room D3)</strong></td>
<td><strong>17:15-18:45</strong></td>
<td>Trending Topic Session: Novel coronavirus outbreak: experience and challenges in imaging and beyond</td>
</tr>
<tr>
<td><strong>Room C</strong></td>
<td><strong>17:30-18:00</strong></td>
<td>Trending Topic Session: Novel coronavirus outbreak: experience and challenges in imaging and beyond</td>
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<th>Interactive Sessions</th>
<th>Voice of EPOS Sessions</th>
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<td>Highlighted Sessions</td>
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### Technical Exhibition: FRIDAY, MARCH 13

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<td><strong>18:00</strong></td>
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</table>

### Programme Overviews: 

- **8:00 AM - 5:00 PM:** 
- **Hands-on Workshops:** 
- **Interactive Sessions:** 
- **Voice of EPOS Sessions:** 

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### Programme Overviews: FRIDAY, MARCH 13

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### Programme Overviews: FRIDAY, MARCH 13

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<td>09:30</td>
<td>My 1548c Implantation and removal of prostheses in the foot and ankle Research Presentation Session: Basic Science</td>
</tr>
<tr>
<td>10:00</td>
<td>My 1549c Microbiological and clinical evaluation of periprosthetic joint infection Research Presentation Session: Clinical Science</td>
</tr>
<tr>
<td>10:30</td>
<td>My 1550c Microvascular reconstructions in upper limbs Research Presentation Session: Basic Science</td>
</tr>
<tr>
<td>11:00</td>
<td>My 1551c Staging and early referral: the role of the radiologist Research Presentation Session: Cancer</td>
</tr>
<tr>
<td>11:30</td>
<td>My 1552c The role of the radiologist in the management of malignant pleural mesothelioma Research Presentation Session: Cancer</td>
</tr>
<tr>
<td>12:00</td>
<td>My 1553c MRI of the knee: basic and practical aspects Research Presentation Session: Basic Science</td>
</tr>
<tr>
<td>12:30</td>
<td>My 1554c MRI of the lumbar spine: basic and practical aspects Research Presentation Session: Basic Science</td>
</tr>
<tr>
<td>13:00</td>
<td>My 1555c Multifocal and multifocal congenital anomalies: MRI and its impact on further management Research Presentation Session: Basic Science</td>
</tr>
<tr>
<td>13:30</td>
<td>My 1556c Advances in musculoskeletal imaging in traumatology and orthopaedics Research Presentation Session: Basic Science</td>
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<tr>
<td>14:00</td>
<td>My 1557c The role of imaging in the management of asymptomatic hip dysplasia Research Presentation Session: Basic Science</td>
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<tr>
<td>14:30</td>
<td>My 1558c The role of imaging in the management of asymptomatic knee instability Research Presentation Session: Basic Science</td>
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<tr>
<td>15:00</td>
<td>My 1559c The role of imaging in the management of asymptomatic shoulder instability Research Presentation Session: Basic Science</td>
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<tr>
<td>15:30</td>
<td>My 1560c The role of imaging in the management of asymptomatic ankle instability Research Presentation Session: Basic Science</td>
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<tr>
<td>16:00</td>
<td>My 1561c The role of imaging in the management of asymptomatic wrist instability Research Presentation Session: Basic Science</td>
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<tr>
<td>16:30</td>
<td>My 1562c The role of imaging in the management of asymptomatic elbow instability Research Presentation Session: Basic Science</td>
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<tr>
<td>17:00</td>
<td>My 1563c The role of imaging in the management of asymptomatic hip instability Research Presentation Session: Basic Science</td>
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<tr>
<td>17:30</td>
<td>My 1564c The role of imaging in the management of asymptomatic knee instability Research Presentation Session: Basic Science</td>
</tr>
<tr>
<td>18:00</td>
<td>My 1565c The role of imaging in the management of asymptomatic shoulder instability Research Presentation Session: Basic Science</td>
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### Technical Exhibition

**Technical Exhibition: EXPO Gallery (First Level): 10:00-17:00**

**Technical Exhibition: EXPO Halls and EXPO Foyer D: 10:00-17:00**

**Programme Overviews key**

- Education Programme
- Scientific Programme
- Interactive Sessions
- Hands-on Workshops
- Highlighted Sessions
- Voice of EPOS Sessions

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**www.myESR.org**

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**Scientific Programme | ECR 2020**

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**www.myESR.org**
### Sunday, March 15

**Eurosense**

#### Sessions

- **10:30-11:30 AM**: EuroGastroscopy
- **11:30-12:30 AM**: Gastroscopy and Endoscopy
- **12:30-13:30 AM**: Endoscopy and Video Capsule
- **13:30-14:30 AM**: Capsule Endoscopy
- **14:30-15:30 AM**: Video Capsule Endoscopy

**Eurosense**

#### Sessions

- **10:30-11:30 AM**: EuroGastroscopy
- **11:30-12:30 AM**: Gastroscopy and Endoscopy
- **12:30-13:30 AM**: Endoscopy and Video Capsule
- **13:30-14:30 AM**: Capsule Endoscopy
- **14:30-15:30 AM**: Video Capsule Endoscopy

**Hands-on Workshops**

#### Sessions

- **10:30-11:30 AM**: Hand-on Workshop 1
- **11:30-12:30 AM**: Hand-on Workshop 2
- **12:30-13:30 AM**: Hand-on Workshop 3
- **13:30-14:30 AM**: Hand-on Workshop 4
- **14:30-15:30 AM**: Hand-on Workshop 5

**Interactive Sessions**

#### Sessions

- **10:30-11:30 AM**: Interactive Session 1
- **11:30-12:30 AM**: Interactive Session 2
- **12:30-13:30 AM**: Interactive Session 3
- **13:30-14:30 AM**: Interactive Session 4
- **14:30-15:30 AM**: Interactive Session 5

**Voice of Epos Sessions**

#### Sessions

- **10:30-11:30 AM**: Voice of Epos 1
- **11:30-12:30 AM**: Voice of Epos 2
- **12:30-13:30 AM**: Voice of Epos 3
- **13:30-14:30 AM**: Voice of Epos 4
- **14:30-15:30 AM**: Voice of Epos 5

**Highlighted Sessions**

#### Sessions

- **10:30-11:30 AM**: Highlighted Session 1
- **11:30-12:30 AM**: Highlighted Session 2
- **12:30-13:30 AM**: Highlighted Session 3
- **13:30-14:30 AM**: Highlighted Session 4
- **14:30-15:30 AM**: Highlighted Session 5
ECR 2020 TRENDS 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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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
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.

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.

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)

ISRR meets Japan

Meet 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]
Akihiro 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

Meet 8a Radiology in Israel: technology and professionalism

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

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

» Introduction [Meets 8a-2]
Jacob Sobna; 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]
Donith Shaham; Jerusalem/IL

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

» Imaging technology development: the Israeli experience [Meets 8a-7]
Jacob Sobna; 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)

ISRR meets Canada

Meet 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 Crompt; 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

Meet 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]
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]

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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 Vetger; 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.*
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.
**Children in Focus**

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

**Children in Focus**

**IF 7** The patient journey: from foetus to adulthood

- **Chairperson's introduction**  [IF 7-1]
  Catherine Owens; Doha/QA
- **In memoriam Prof. Helen M.L. Carty**  [IF 7-2]
  Austin Carty; Liverpool/UK
- **From Women in Focus to Children in Focus**  [IF 7-3]
  Hedvig Hricak; New York, NY/US
- **Inspiration behind Children in Focus**  [IF 7-4]
  Boris Brljacić; Zagreb/HR
- **The foetus: from imagination to imaging**  [IF 7-5]
  Lorenzo E. Derchi; Genoa/IT
- **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
- **My personal journey through childhood cancer in pictures: a ten year marathon**
  Oscar Parry; London/UK  [IF 7-7]
  Phil Parry; London/UK  [IF 7-8]
- **Panel discussion: Where are we now and what has really changed?**  [IF 7-9]

**Thursday, March 12, 16:00–17:30, Room O**

**Children in Focus**

**IF 8** Medicolegal dilemmas in paediatric medicine

- **Chairperson's introduction**  [IF 8-1]
  Amaka C. Offiah; Sheffield/UK
- **Child abuse, creation of a non-disease? The Swedish report versus IPR/ESPR white paper: is anything really ever black and white?**  [IF 8-2]
  Arabinda Choudhary; Little Rock, AR/US
- **Medical evidence from a legal perspective**  [IF 8-3]
  Wilma Duijst; Maastricht/NL
- **The EU perspective: is child abuse a homogenous ‘disease’ across Europe? Cultural aspects**  [IF 8-4]
  Maria Raissaki; Iraklion/GR
- **Child sexual abuse in India among children from marginalised backgrounds**  [IF 8-5]
  Reena Mary George; Vienna/AT
- **Panel discussion: How can we secure credible evidence regarding child abuse in order to protect both children and their carers?**  [IF 8-6]

**Friday, March 13, 14:00–15:30, Room O**

**Children in Focus**

**IF 11** Against all odds: bringing health care to children in low-resource areas

- **Chairperson's introduction**  [IF 11-1]
  Karen Rosendahl; Bergen/NO
- **Child health in the Sustainable Development Goals (SDG) era**  [IF 11-2]
  Anshu Banerjee; Geneva/CH
- **The challenges of health care delivery to refugee and migrant children**  [IF 11-3]
  Gaela Bernini; Milan/IT
- **ESPR Outreach task force: what is our best way to help?**  [IF 11-4]
  Joanna Kasznia-Brown; Taunton/UK
- **Panel discussion: How can we efficiently reach out to children in low resource areas to develop self-sustainable aid-programs?**  [IF 11-5]

**Friday, March 13, 16:00–17:30, Room O**

**Children in Focus**

**IF 12** The child as an individual: whose life is it anyway?

- **Chairperson’s introduction**  [IF 12-1]
  Bella Said; London/UK
- **Use of restraints in children: what is acceptable, when and why?**  [IF 12-2]
  Jørgen Dahlberg; Oslo/NO
- **Parental and cultural autonomy: can carers make any decisions on behalf of their child?**  [IF 12-3]
  Eduard Verhagen; Gronigen/NL
- **Paediatric radiology: is there really any point?**  [IF 12-4]
  Øystein E. Olsen; London/UK
- **Panel discussion: Who defines what is best for the child?**  [IF 12-5]
- **Closing remarks**
  Lil-Sofie Ording Müller; Oslo/NO  [IF 12-6]
  Catherine Owens; Doha/QA  [IF 12-7]
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**

**13 March**  
**Friday, March 13, 14:00–15:30, Forum (Room A)**  
**IIQ** Image Interpretation Quiz  
Humans vs Machines  

**Moderator:** Paul M. Parizel; Perth, WA/AU  
**Introduction**  
Boris Brkljačić; Zagreb/HR  

**Panellists:**  
José Vilar; Valencia/ES  
Gábor Forrai; Budapest/HU  
Konstantin Nikolaou; Tübingen/DE  
Cem Calli; İzmir/TR  
Alexandre Krainik; Grenoble/FR

**= Interactive session with electronic voting/self assessment**

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

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The New Horizons Sessions (NH) provide an insight into recent developments within a specific area of practice, be that innovations in technique, evolvements 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

14 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

12 March

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]

13 March

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]

14 March

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

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-1]
  Marc Dewey; Berlin/DE
- Insights from trials about endpoints for response evaluation in clinical practice [SF 1a-2]
  Laure S. Fournier; Paris/F
- 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/B
- Panel discussion: How to best evaluate oncologic response in clinical practice? [SF 1a-5]

Wednesday, March 11, 08:30–10:00, Tech Gate Auditorium

SF 1b CEUS in children

- Chairperson’s introduction [SF 1b-1]
  Magdalena Wozniak; Lublin/PL
- Liver and extrahepatic intravenous applications [SF 1b-2]
  Damjana Kljucevsek; Ljubljana/SI
- Vesicoureteral (VU) reflux [SF 1b-3]
  Goran Roic; Zagreb/HR
- Traumas [SF 1b-4]
  Hans-Joachim Mentzel; Jena/DE
- Panel discussion: Is off-label use of CEUS in children a cause for concern? [SF 1b-5]

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-1]
  Piotr Golofit; Szczecin/PL
- Tinnitus [SF 2b-2]
  Berit Verbist; Leiden/NL
- Enlarged lymph nodes [SF 2b-3]
  Roberto Maroldi; Brescia/IT
- Hoarseness [SF 2b-4]
  Edith Vassallo; Msida/MT
- Panel discussion: How to deal with symptomatic patients without definite imaging findings? [SF 2b-5]

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-1]
  Hanno Hoppe; Berne/CH
- Patient selection and assessment [SF 2a-2]
  Tiago Bilhim; Lisbon/PT
- Anatomy, imaging and planning [SF 2a-3]
  Charles Tapping; Oxford/UK
- Embolisation technique [SF 2a-4]
  Kai Wilhelm; Bonn/DE
- Outcome and results from trials [SF 2a-5]
  Florian Wolf; Vienna/AT
- Panel discussion: New developments in managing benign prostatic disease [SF 2a-6]

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-1]
  Piotr Golofit; Szczecin/PL
- Tinnitus [SF 2b-2]
  Berit Verbist; Leiden/NL
- Enlarged lymph nodes [SF 2b-3]
  Roberto Maroldi; Brescia/IT
- Hoarseness [SF 2b-4]
  Edith Vassallo; Msida/MT
- Panel discussion: How to deal with symptomatic patients without definite imaging findings? [SF 2b-5]
SPECIAL FOCUS SESSIONS

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

SF 5  MRI of rectal carcinoma

» Chairperson's introduction  [SF 5-1]
Ivana Blazic; Belgrade/RS

» Keynote lecture: The disappearing rectal cancer: the radio-surgical challenge of our time  [SF 5-2]
Richard John Heald; Southampton/UK

» Rectal cancer revisited: Dutch perspective  [SF 5-3]
Regina G.H. Beets-Tan; Amsterdam/NL

» Rectal cancer revisited: UK perspective  [SF 5-4]
Gina Brown; Sutton/UK

» Rectal cancer: old challenges, new tools  [SF 5-5]
Lennart K. Blomqvist; Stockholm/SE

» Panel discussion: Role of the radiologist in diagnosis and management of rectal cancer  [SF 5-6]

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

SF 7b  How radiologists can help the infertile couple

» Chairperson's introduction  [SF 7b-1]
Michal Studniarek; Gdansk/PL

» Andrology expert's view on the role of radiology in infertility  [SF 7b-2]
Davor Jezek; Zagreb/HR

» Imaging the infertile men: when and how?  [SF 7b-3]
Michele Bertolotto; Trieste/IT

» Imaging the infertile women: when and how?  [SF 7b-4]
Rosemarie Forstner; Salzburg/AT

» Interventional radiology in male and female infertility  [SF 7b-5]
Raman Uberoi; Oxford/UK

» Panel discussion: What is the role of the radiologist in the workup of infertility?  [SF 7b-6]

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

SF 7a  Addressing challenges in imaging of larger patients

» Chairpersons' introduction  [SF 7a-1]
Vibeke Logager; Copenhagen/DK
Jonathan McNulty; Dublin/IE  [SF 7a-2]

» Key considerations in general radiography examinations of larger patients  [SF 7a-3]
Karen Knapp; Exeter/UK

» Modification of ultrasound technique and protocols for larger patients  [SF 7a-4]
Barbara Kraus; Vienna/AT

» Diagnostic image quality considerations for larger patients in computed tomography  [SF 7a-5]
Shane J. Foley; Dublin/IE

» Optimal imaging of larger patients in magnetic resonance imaging  [SF 7a-6]
Elise Thiry; Strasbourg/FR

» Panel discussion: How such patient diversity can impact on daily practice and how we can improve our services?  [SF 7a-7]

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

SF 7c  BasiCardiac for non-cardiac radiologists

» Chairperson's introduction  [SF 7c-1]
Luigi Natale; Rome/IT

» Cardiac findings in ungated chest CT  [SF 7c-2]
Konstantin Nikolau; Tübingen/DE

» Coronary artery disease: how, why, and when a cardiac CT?  [SF 7c-3]
Rozemarijn Vliegenthart; Groningen/NL

» CMR: characterising myocardial damage  [SF 7c-4]
Marco Francone; Rome/IT

» Acute chest pain with normal coronaries: a clear indication for CMR  [SF 7c-5]
Matthias Gutberlet; Leipzig/DE

» Panel discussion: The heart is not a black hole in the chest  [SF 7c-6]

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

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

» Chairperson's introduction  [SF 8a-1]
Andrea G. Rockall; London/UK

» Liver, pancreatic and splenic incidentalomas  [SF 8a-2]
Andrzej Cieszanowski; Warsaw/PL

» Adrenal and renal incidentalomas  [SF 8a-3]
Mikael Hellström; Gothenburg/SE

» Pelvic incidentalomas  [SF 8a-4]
Deniz Akata; Ankara/TR

» Panel discussion: The management of incidentalomas: when to dismiss, follow-up or treat them?  [SF 8a-5]
SPECIAL FOCUS SESSIONS

Thursday, March 12, 16:00–17:30, Da Vinci (Room D1)

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

» Chairperson's introduction [SF 8b-1]
Lorella Mascaro; Brescia/IT

» T1, T2, and PD: direct mapping or not? [SF 8b-2]
Marcel Jan Bertus Warnjes; Linköping/SE

» Bringing quantitative magnetic susceptibility mapping into the clinic [SF 8b-3]
Christian Langkammer; Graz/AT

» Promises and pitfalls of magnetisation transfer and diffusion [SF 8b-4]
Mara Cercignani; Brighton/UK

» Panel discussion: From direct mapping to extrapolating MR-properties [SF 8b-5]

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

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

» Chairperson's introduction [SF 8c-1]
Sujal R. Desai; London/UK

» Fleischner updated criteria for the diagnosis of idiopathic pulmonary fibrosis (IPF) [SF 8c-2]
Nicola Sverzellati; Parma/IT

» Drug and radiation-induced lung fibrosis [SF 8c-3]
Corinela M. Schaefer-Prokop; Amersfoort/NL

» Connective tissue disease-related lung fibrosis [SF 8c-4]
Guillaume Chassagnon; Paris/FR

» Panel discussion: The pivotal role of radiologists for lung fibrosis management [SF 8c-5]

Friday, March 13, 08:30–10:00, Room X

SF 9a  Hybrid imaging: beyond FDG PET/CT

» Chairperson's introduction [SF 9a-1]
Thomas Beyer; Vienna/AT

» Prostate specific membrane antigen (PSMA) hybrid imaging in guiding prostate cancer therapy [SF 9a-2]
Clemens C. Cyran; Munich/DE

» Somatostatin receptor imaging and therapy [SF 9a-3]
Luigi Aloj; Cambridge/UK

» Hybrid PET and SPECT for cardiovascular imaging [SF 9a-4]
Albert Floatas; Barcelona/ES

» Imaging to guide immuno-oncology [SF 9a-5]
Umar Mahmood; Charlestown, MA/US

» Panel discussion: New trends in hybrid imaging [SF 9a-6]

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

SF 9b  Imaging of migrant and refugee children

» Chairperson's introduction [SF 9b-1]
Michaële Soudack; Ramat Gan/IL

» Challenge of promoting health of refugee and migrant children in Europe [SF 9b-2]
Anders Hjern; Stockholm/SE

» Imaging of emerging diseases in refugee and migrant children [SF 9b-3]
Berna Oğuz; Ankara/TR

» Age determination for legal purpose [SF 9b-4]
Lil-Sofie Ording Müller; Oslo/NO

» Panel discussion: The role of the radiologist in the management of refugee and migrant children [SF 9b-5]
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. Fuchsłąger; 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

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


14 March Saturday, March 14, 14:00–15:30, Room E
SF 15 My top three tips for imaging musculoskeletal injury

» 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]

15 March Sunday, March 15, 08:30–10:00, Studio 2020
SF 17a Colorectal liver metastasis: treatment planning and management

» 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 Miletic; 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]

15 March Sunday, March 15, 08:30–10:00, Room M 4
SF 17b When stroke happens in children

» 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

12 March

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]

12 March

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

PC 8 Patient engagement, visible radiology and eHealth
Jointly organised by the ESR Subcommittees on PIER and ESR Patient Advisory Group (ESR-PAG)

» Chairpersons' introduction [PC 8-1]
Nicola Bedlington; Vienna/AT Elmar Kotter; Freiburg/DE

» 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 5-6]

13 March

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

PC 9 Postgraduate and speciality training for radiographers

» Chairpersons' introduction [PC 9-1]
Deniz Akata; Ankara/TR
Barbara Kraus; Vienna/AT

» 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]

14 March

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

PC 13 Equipment purchasing decisions: a team approach

» Chairperson's introduction [PC 13-1]
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 Schouman-Claeys; Paris/FR

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

15 March

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

PC 17 Challenges facing the radiology workforce
Organised by the ESR Subcommittees on PIER

» Chairperson's introduction [PC 17-1]
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]
  Chloë 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 [C 2-M]

- 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/SL
- 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
- HORIZON 2020 PRIMAGE biobank [C 20-2]
  Luis Martí-Bonmatí; Valencia/ES
- Dutch biobank [C 20-3]
  Aad van der Lugt; Rotterdam/NL
- Artificial intelligence (AI) for analysis in large-scale population studies: UK biobank [C 20-4]
  Daniel Rueckert; London/UK
- 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 16-6]

Friday, March 13, 12:45–13:45, Coffee & Talk 1
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]
March 13
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 Zufiria; 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 Zufiria; 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]

March 14
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 Marti-Bonmati; 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]

March 13
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]
COFFEE & TALK SESSIONS

14 March 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 [C 30-1]
Erik Briers; Hasselt/BE

» Sharing best practices in engaging with radiologists [C 30-2]
Cheryl Cruwys; Glanges/FR

» The radiologist’s perspective: effectively dividing time for communication with patients [C 30-3]
Dominique-Gérard Carrié; Toulouse/FR

» Patient experiences on optimising communication in the radiology department [C 30-4]
Birgit Bauer; Absberg/DE

» Achieving better patient outcomes through effective communication and empowerment [C 30-5]
Caroline Justich; Vienna/AT

» Open forum discussion: How to implement a system of effective patient-professional communication [C 30-6]

14 March Saturday, March 14, 14:40–15:40, Coffee & Talk 3
C 31 Addressing shortages in the medical imaging workforce

Moderators: Berit Verbist; Leiden/NL [C 31-M]
Dimitris Katsifarakis; Athens/GR [C 31-M]

» Overview from the WHO on the health care worker shortages and contributing factors [C 31-1]
Maria del Rosario Perez; Geneva/CH

» The view of the International Society of Radiology [C 31-2]
Luis Donoso; Barcelona/ES

» The view of the European Society of Radiology [C 31-3]
Lorenzo E. Derchi; Genoa/IT

» The view of the International Society of Radiographers and Radiologic Technologists [C 31-4]
Donna Newman; Fargo, ND/US

» The views of the European Federation of Radiographer Societies [C 31-5]
Jonathan McNulty; Dublin/IE

» Open forum discussion [C 31-6]

14 March Saturday, March 14, 16:00–17:00, Coffee & Talk 3
C 32 How to advance the academic ladder

» Chairperson’s introduction [C 32-1]
Jacob Sosna; Jerusalem/IL

» Judging publications for academic promotions [C 32-2]
Luis Martí-Bonmatí; Valencia/ES

» Grants: importance for science and academia [C 32-3]
Gabriel P. Krestin; Rotterdam/NL

» Open forum discussion [C 32-4]

14 March Saturday, March 14, 14:00–15:00, Coffee & Talk 1
C 8 ESOR one-year fellowship
Organised by ESOR

» Chairperson’s introduction [C 8-1]
Regina G.H. Beets-Tan; Amsterdam/NL

» Why should you apply for a one-year fellowship? [C 8-2]
Thi Dan Linh Nguyen-Kim; Zurich/CH
Eun Kyoung Hong; Seoul/KR [C 8-3]

» Open forum discussion [C 8-4]

14 March Saturday, March 14, 14:30–15:30, 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 [C 33-1]
Luis Donoso; Barcelona/ES

» Overview and update on DIAM radiology [C 33-2]
Peter Mildenberger; Mainz/DE

» Overview and international experiences with DIAM enterprise imaging (EI) [C 33-3]
Jörg Studzinski; Leipzig/DE

» The value of DIAM Gap analyses [C 33-4]
Paul Hoogland; Utrecht/NL

» Open forum discussion: DIAM radiology or DIAM enterprise imaging, which one to go for? [C 33-5]

14 March Saturday, March 14, 12:45–13:45, Coffee & Talk 1
C 32 How to advance the academic ladder

» Chairperson’s introduction [C 32-1]
Jacob Sosna; Jerusalem/IL

» Judging publications for academic promotions [C 32-2]
Luis Martí-Bonmatí; Valencia/ES

» Grants: importance for science and academia [C 32-3]
Gabriel P. Krestin; Rotterdam/NL

» Open forum discussion [C 32-4]

15 March 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 [C 33-1]
Luis Donoso; Barcelona/ES

» Overview and update on DIAM radiology [C 33-2]
Peter Mildenberger; Mainz/DE

» Overview and international experiences with DIAM enterprise imaging (EI) [C 33-3]
Jörg Studzinski; Leipzig/DE

» The value of DIAM Gap analyses [C 33-4]
Paul Hoogland; Utrecht/NL

» Open forum discussion: DIAM radiology or DIAM enterprise imaging, which one to go for? [C 33-5]
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 Dumitrutu; 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 Demaere; 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.
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.
TRANSATLANTIC COURSE


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-I]
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-I]
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-I]
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 Implant: 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 Efstathopoulos; 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.

March 12

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-M]

» 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

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  [EU 12-3]
Peter B. Noël; Philadelphia, PA/US

» Spectral photon-counting CT: technical concepts for quantitative multi-energy imaging and dose reduction  [EU 12-4]
Loïc Boussel; Lyon/FR

» Effects of dose reduction on quantitative analyses of chest CT  [EU 12-5]
Jin Mo Goo; Seoul/KR

» Perfusion CT as quantitative imaging biomarker in acute ischaemic stroke and brain trauma: what about the dose?  [EU 12-6]
Ilan Shelef; Beer Sheva/IL

» 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.

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  [EU 13-1]
John Damilakis; Iraklion/GR

» The use of CT in paediatrics: examination frequencies and common practices  [EU 13-2]
Magnus Kajser; Stockholm/SE

» CT dosimetry in children: patient-specific dosimetry and dose reduction tools  [EU 13-3]
John Damilakis; Iraklion/GR

» Radiation exposure from CT in childhood and subsequent risk of haematological malignancies, brain and other cancers  [EU 13-4]
Isabelle Thierry-Chef; Barcelona/ES

» Risk communication and risk optimisation  [EU 13-5]
Claudio Granata; Genoa/IT

» Panel discussion: Radiation safety in paediatric CT: what are the challenges?  [EU 13-6]

This session is part of the EuroSafe Imaging campaign.

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  [EU 18-1]
Melanie Fachet; Magdeburg/DE

» Technology using AI for radiation protection  [EU 18-2]
Mika Kortesniemi; Helsinki/FI

» What is the limit of dose reduction by artificial intelligence methods: 2D and 3D?  [EU 18-3]
Christoph Hoeschen; Magdeburg/DE

» Chances and limitations of AI for nuclear medical imaging  [EU 18-4]
Christoph Hoeschen; Magdeburg/DE

» 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.
EUROSAFE IMAGING SESSIONS

**March 11, Wednesday, 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  
  Ivana Kralik, Zagreb/HR
- What is the ideal referral that we wish to receive?  
  Adrian Brady, Cork/IE
- Very low dose: a paradigm shift in radiation protection?  
  Reinhard W.R. Loose, Nuremberg/DE
- Defensive medicine: how to avoid inappropriate “rule-out” referrals  
  Franz Kainberger, Vienna/AT
- Open forum discussion

**March 11, Wednesday, 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  
  Donald P. Frush, Durham, NC/US
- Radiation protection in the neonatal intensive care unit  
  Sergio Salerno, Palermo/IT
- Optimising protocol parameters in paediatric conventional radiology and CT  
  Erich Sorantin, Graz/AT
- Understanding dose indices and exposure indicators in digital radiography  
  Raija Seuri, Helsinki/FI
- Open forum discussion

**March 12, Thursday, 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  
  Maria del Rosario Perez, Geneva/CH
- Setting the scene  
  Guy Frija, Paris/FR
- Individual health assessment (IHA) in the regulations  
  Jürgen Griebel, Neuerberg/DE
- The Korean experience regarding IHA  
  Min-Jeong Kim, Seoul/KR
- Open forum discussion  
  Maria del Rosario Perez, Geneva/CH

**March 12, Thursday, 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  
  Boris Brkljačić, Zagreb/HR
- Medical imaging decision and support study (MIDAS)  
  Thomas J. Kroencke, Augsburg/DE
- ESR iGuide implementation in Saudi Arabia  
  Faiz Garni, Riyadh/SA
- ESR guideline localisation and version upgrade experience  
  Henriettte Ståhlbrandt, Eksjö/SE
- Open forum discussion

**March 12, Thursday, 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  
  David C. Howlett, Eastbourne/UK
- Clinical audit: EU-BSS uptake, the ESR perspective  
  Adrian Brady, Cork/IE
- Clinical audit: EU-BSS uptake, the regulator perspective  
  Alexandre Karoussou-Schreiner, Luxembourg/LU
- Case example: clinical audit template  
  Tanja Holter, Oslo/NO
- Open forum discussion: To discuss the potential for future pan-European projects
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]

Friday, March 13, 12:45–13:45, Coffee & Talk 2
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]

Saturday, March 14, 14:00–15:00, Coffee & Talk 2
C 18  EuroSafe meets ArabSafe
Organised by EuroSafe Imaging

- Chairpersons’ introduction
  [C 18-1]
  Guy Frija; Paris/FR
  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 Hussein 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**
EDUCATION IN PARTNERSHIP

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.
### Educational and Scientific Programme

**E³ – RISING STARS PROGRAMME**

#### BASIC SESSIONS

Special sessions suitable for residents, students, radiographers and radiographers-in-training

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Session</th>
<th>Location</th>
<th>Organiser</th>
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<tbody>
<tr>
<td><strong>11 March</strong></td>
<td><strong>Wednesday, March 11, 08:30–10:00, Room M 4</strong></td>
<td>BS 1 Radiologic anatomy: abdomen</td>
<td>Organised by ESOR</td>
<td>Sofia Gourtsoyianni; Athens/GR (BS 1-M)</td>
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<td>» Small bowel (BS 1-1) Stuart A. Taylor; London/UK</td>
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<td>» Anorectal (BS 1-2) András Palkó; Szeged/HU</td>
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<td>» Peritoneum and mesentery (BS 1-3) Panos K. Prassopoulos; Thessaloniki/GR</td>
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<td><strong>11 March</strong></td>
<td><strong>Wednesday, March 11, 10:30–12:00, Room E</strong></td>
<td>BS 2 Radiologic anatomy: chest</td>
<td>Organised by ESOR</td>
<td>Fabian Rengier; Heidelberg/DE (BS 2-M)</td>
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<td>» Mediastinal (BS 2-1) Mariaelena Occhipinti; Florence/IT</td>
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<td>» Lungs (BS 2-2) Cornelia M. Schaefer-Prokop; Amersfoort/NL</td>
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<td>» Vasculation (BS 2-3) Iva Žuža; Rijeka/HR</td>
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<td><strong>11 March</strong></td>
<td><strong>Wednesday, March 11, 14:00–15:30, Room E</strong></td>
<td>BS 3 Musculoskeletal: essentials of trauma imaging</td>
<td>Organised by ESOR</td>
<td>Alberto S. Viera; Porto/PT (BS 3-M)</td>
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<td>» Fractures and dislocations in the extremities (BS 3-1) Reto Sutter; Zurich/CH</td>
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<td>» Acetabular fractures demystified (BS 3-2) Üstun Aydingöz; Ankara/TR</td>
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<td>» Cervical spine trauma (BS 3-3) Peter J. MacMahon; Dublin/IE</td>
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<td><strong>12 March</strong></td>
<td><strong>Thursday, March 12, 08:30–10:00, Room M 3</strong></td>
<td>BS 5b Career opportunities for radiographers</td>
<td>Organised by the EFRS</td>
<td>Jonathan McNulty; Dublin/IE (BS 5b-M)</td>
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<td>» The specialised paediatric radiographer (BS 5b-1) Jenny Gårdling; Lund/SE</td>
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<td>» Radiographers in ultrasound (BS 5b-2) Gill Harrison; London/UK</td>
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<td>» The radiation protection officer (BS 5b-3) Edward Gruppetta; Msida/MT</td>
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<td>» Panel discussion: Things to consider when starting your career (BS 5b-4)</td>
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<td><strong>12 March</strong></td>
<td><strong>Thursday, March 12, 16:00–17:30, Room B</strong></td>
<td>BS 8 Genitourinary</td>
<td>Organised by ESOR</td>
<td>Lorenzo E. Derchi; Genoa/IT (BS 8-M)</td>
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<td>» Adrenal pathologies (BS 8-1) Marek Stajglik; Poznan/PL</td>
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<td>» Prostate cancer (BS 8-2) Bernd Hamm; Berlin/DE</td>
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<td>» Foetal MRI (BS 8-3) Daniela Prayer; Vienna/AT</td>
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<td><strong>13 March</strong></td>
<td><strong>Friday, March 13, 08:30–10:00, Room B</strong></td>
<td>BS 9a Radiologic anatomy: head and neck</td>
<td>Organised by ESOR</td>
<td>Minerva Becker; Geneva/CH (BS 9a-M)</td>
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<td>» Neck spaces (BS 9a-1) Nikoleta I. Traykova; Plovdiv/BG</td>
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<td>» Temporal bone (BS 9a-2) Jan Walther Casselman; Bruges/BE</td>
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<td>» Larynx (BS 9a-3) Roberto Maroldi; Brescia/IT</td>
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<td><strong>13 March</strong></td>
<td><strong>Friday, March 13, 08:30–10:00, Room M 1</strong></td>
<td>BS 9b Bone health and osteoporosis imaging</td>
<td>Organised by the EFRS</td>
<td>Jean-Philippe Dillenseger; Strasbourg/FR (BS 9b-M)</td>
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<td>» Osteoporosis: epidemiology, risk factors, and screening (BS 9b-1) Karen Knapp; Exeter/UK</td>
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<td>» Dual-energy x-ray absorptiometry and other modalities (BS 9b-2) Rogério Lopes; Vila Nova de Foz Côa/PT</td>
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<td>» Opportunities for radiographers in bone health (BS 9b-3) Eilish McDermott; Dublin/IE</td>
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<td>» Panel discussion: How can we further develop the radiographers’ role in osteoporosis imaging? (BS 9b-4)</td>
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</table>
E³ – RISING STARS PROGRAMME

BASIC SESSIONS

Special sessions suitable for residents, students, radiographers and radiographers-in-training

13 March  
Friday, March 13, 16:00–17:30, Room F2

BS 12  
Vascular: US and vascular disease  
**LEVEL H**

Moderator: Jens Bremerich; Basle/CH  
[BS 12-M]

» Abdominal aorta  
Dirk André Clevert; Munich/DE  
[BS 12-1]

» Upper and lower limb: arterial  
Eugen Divjak; Zagreb/HR  
[BS 12-2]

» Lower limb: venous  
Sorin M. Dudea; Cluj-Napoca/RO  
[BS 12-3]

14 March  
Saturday, March 14, 14:00–15:30, Room F2

BS 15a  
Hybrid imaging  
**ALL LEVELS**

Moderator: Umar Mahmood; Charlestown, MA/US  
[BS 15a-M]

» Clinical applications of hybrid imaging  
Katrine Riklund; Umea/SE  
[BS 15a-1]

» Hybrid imaging: thorax  
Deena Neriman; London/UK  
[BS 15a-2]

» Hybrid imaging: abdomen and pelvis  
Sergios Gatidis; Tübingen/DE  
[BS 15a-3]

BS 15b  
Radiographer research: tips to get you started  
Organised by the EFRS  
**LEVEL B**

Moderator: Gerold Unterhumer; Vienna/AT  
[BS 15b-M]

» Undertaking a systematic review  
Luis J.O.C. Lança; Lisbon/PT  
[BS 15b-1]

» Planning and undertaking interviews  
Michaela Davis; Dublin/IE  
[BS 15b-2]

» Conducting survey-based research  
Anetta Bolejko; Malmo/SE  
[BS 15b-3]

» Panel discussion: Research mentorship: getting help from the experts  
[BS 15b-4]

15 March  
Sunday, March 15, 08:30–10:00, Room M 3

BS 16  
The importance of good patient positioning in imaging  
Organised by the EFRS

Moderator: Anke Ohmstede; Oldenburg/DE  
[BS 16-M]

» Positioning tips and tricks for musculoskeletal radiography  
Janni Jensen; Odense/DK  
[BS 16-1]

» Positioning tips and tricks for CT  
Ronald Booris; Rotterdam/NL  
[BS 16-2]

» Positioning tips and tricks for MRI  
Christina Malamateniou; London/UK  
[BS 16-3]

» Panel discussion: The importance of patient positioning: do we have to go back to basics?  
[BS 16-4]

14 March  
Saturday, March 14, 16:00–17:30, Room M 1

BS 17  
Communication as a safety tool  
Organised by the EFRS

Moderator: Adelino Santos; Coimbra/PT  
[BS 17-M]

» The relevance of patient communication  
Uffe L. W. Jakobsen; Odense/DK  
[BS 17-1]

» Communication of radiation risk  
Jonathan Portelli; Msida/MT  
[BS 17-2]

» Radiographers as communication role models  
Dieuwertje Toonen-Bok; Groningen/NL  
[BS 17-3]

» 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  
Cardiothoracic emergencies  
**LEVEL B**

Moderator: Adrian Santa; Sibiu/RO  
[BS 18-M]

» Acute aortic syndrome  
Tomasz Jargiello; Lublin/PL  
[BS 18-1]

» Pulmonary embolism  
Ioannis Vlahos; Houston, TX/US  
[BS 18-2]

» Acute coronary syndrome  
Ricarda M.M. Hinzpeter; Zurich/CH  
[BS 18-3]
**CASE-BASED DIAGNOSIS TRAINING**

Special programme for residents and general radiologists

**CB**  
Case-Based Diagnosis Training  
**Moderators:**  
- Soraya Robinson; Vienna/AT  
- Klaus M. Friedrich; Vienna/AT

- **Liver**  
  - Filipe Caseiro Alves; Coimbra/PT
  
- **Neuro**  
  - Daniela Prayer; Vienna/AT
  
- **Musculoskeletal**  
  - Franz Kainberger; Vienna/AT
  
- **Maxillofacial**  
  - Soraya Robinson; Vienna/AT
  
- **Genitourinary**  
  - Michael Toepker; Vienna/AT
  
- **Interlude: Air in the wrong place**  
  - Burçe Ozgen Mocan; Chicago, IL/US
  
- **Head and neck**  
  - Christian Czerny; Vienna/AT
  
- **Chest**  
  - Helmut Prosch; Vienna/AT
  
- **Spine**  
  - Klaus M. Friedrich; Vienna/AT
  
- **Gastrointestinal**  
  - Wolfgang Schima; Vienna/AT
  
- **Breast**  
  - Michael H. Fuchsjäger; Graz/AT

**15 March**  
**Sunday, March 15, 10:15–12:15, Room E**

**RADIOLOGY TRAINEES FORUM PROGRAMME**

**RTF Quiz**  
Beating heart of radiology  
**Quiz-Masters:**  
- Marco Francone; Rome/IT  
- Christian Loewe; Vienna/AT

**12 March**  
**Thursday, March 12, 16:00–17:30, Room E**

- **TF**  
  Highlighted Lectures  
  **Moderators:**  
  - Maja Marolt Music; Ljubljana/SI  
  - Nikoleta I. Traykova; Plovdiv/BG
  
  - **Imaging of knee in sports injuries**  
    - Žiga Snoj; Ljubljana/SI
  
  - **Benign lesions in head and neck: what is really benign?**  
    - Roberto Maroldi; Brescia/IT
  
  - **Bone lesions: an integrated approach**  
    - Victor N. Cassar-Pullicino; Oswestry/UK

= Interactive session with electronic voting/self assessment
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

**March 11, Wednesday, 08:30–10:00, Room K**

**E³ 123 Paediatric**

» Chairperson’s introduction [E³ 123-1]
  Jean-François Chateil; Bordeaux/FR

A. Paediatric neuro imaging [E³ 123-2]
  Maria I. Argyropoulou; Ioannina/GR

B. Paediatric chest imaging [E³ 123-3]
  Catherine Owens; Doha/QA

C. Paediatric abdominal imaging [E³ 123-4]
  Tom Watson; London/UK

**March 14, Saturday, 08:30–10:00, Room K**

**E³ 1323 Urogenital**

» Chairperson’s introduction [E³ 1323-1]
  Vibeke Logager; Copenhagen/DK

A. Renal and adrenal imaging [E³ 1323-2]
  Nicolas Grenier; Bordeaux/FR

B. Imaging of the ureter and bladder [E³ 1323-3]
  Mustafa Secil; Izmir/TR

C. Prostate imaging [E³ 1323-4]
  Harriet C. Thoeny; Fribourg/CH

**March 11, Wednesday, 14:00–15:30, Room K**

**E³ 323 Intervventional**

» Chairperson’s introduction [E³ 323-1]
  José Ignacio Bilbao; Pamplona/ES

A. Basic principles of angiography and image-guided interventions [E³ 323-2]
  Nino Tičinović; Zagreb/HR

B. Image-guided interventions in oncology [E³ 323-3]
  Tiago Bilhim; Lisbon/PT

C. Vascular interventions [E³ 323-4]
  Dimitrij Kuhelj; Ljubljana/SI

**March 14, Saturday, 14:00–15:30, Room K**

**E³ 1523 Cardiac and vascular**

» Chairperson’s introduction [E³ 1523-1]
  Karl-Friedrich Kreitner; Mainz/DE

A. Cardiovascular imaging: the basics [E³ 1523-2]
  Riccardo Marano; Rome/IT

B. Cardiovascular imaging: valves, endocardium and aorta [E³ 1523-3]
  Christian Loewe; Vienna/AT

C. Cardiovascular imaging: myocardium and pericardium [E³ 1523-4]
  Jan Bogaert; Leuven/BE

**March 12, Thursday, 08:30–10:00, Room K**

**E³ 523 Head and neck**

» Chairperson’s introduction [E³ 523-1]
  Martin G. Mack; Munich/DE

A. Temporal bone and skull base [E³ 523-2]
  Agnieszka Trojanowska; Lublin/PL

B. Nose, paranasal sinuses and nasopharynx [E³ 523-3]
  Frank A. Pameijer; Utrecht/NL

C. Oral cavity, oropharynx, hypopharynx and larynx [E³ 523-4]
  Minerva Becker; Geneva/CH

**March 15, Sunday, 08:30–10:00, Room K**

**E³ 1723 Gynaecology and obstetrics**

» Chairperson’s introduction [E³ 1723-1]
  Monika Bekiesinska-Figatowska; Warsaw/PL

A. Imaging of the uterus [E³ 1723-2]
  Rahel A. Kubik-Huch; Baden/CH

B. Disorders of the adnexa [E³ 1723-3]
  Rosemarie Forstner; Salzburg/AT

C. 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

Wednesday, March 11, 12:45–13:45, Room F1
E³ 24 A Basics of mammography
Moderators: Eva M. Fallenberg; Munich/DE  [E³ 24A-M]
Karen Kinkel; Chêne-Bougeries/CH  [E³ 24A-M]
» Cookbook for image analysis and interpretation  [E³ 24A-1]
Anne Tardivon; Paris/FR
» Differences in mammography techniques and image analysis  [E³ 24A-2]
Sophia Zackrisson; Malmö/SE

Thursday, March 12, 12:45–13:45, Room B
E³ 24 B Basics of breast ultrasound and multimodality readings
Moderators: Panagiotis Kapetas; Vienna/AT  [E³ 24B-M]
Karen Kinkel; Chêne-Bougeries/CH  [E³ 24B-M]
» Practical ultrasound of the breast: how I do it  [E³ 24B-1]
Alexandra Athanasiou; Athens/GR
» Integrating ultrasound findings into the final mammography report  [E³ 24B-2]
Eva M. Fallenberg; Munich/DE

Friday, March 13, 12:45–13:45, Room B
E³ 24 C Basics of breast MRI
Moderators: Julia Camps Herrero; Valencia/ES  [E³ 24C-M]
Karen Kinkel; Chêne-Bougeries/CH  [E³ 24C-M]
» When is breast MRI indicated and what protocol to use?  [E³ 24C-1]
Ritse M. Mann; Nijmegen/NL
» How to read breast MRI  [E³ 24C-2]
Federica Pediconi; Rome/IT

Saturday, March 14, 12:45–13:45, Room B
E³ 24 D Basics of interventional breast imaging
Moderators: Fiona J. Gilbert; Cambridge/UK  [E³ 24D-M]
Karen Kinkel; Chêne-Bougeries/CH  [E³ 24D-M]
» Ultrasound-guided interventional imaging: when and how?  [E³ 24D-1]
Mary C. Mahoney; Cincinnati, OH/US
» When and how to biopsy under mammographic guidance?  [E³ 24D-2]
Dragana Djilas-Ivanovic; Sremska Kamenica/RS
» When and how to biopsy under MRI guidance?  [E³ 24D-3]
Pascal A.T. Baltzer; Vienna/AT

Sunday, March 15, 08:30–09:30, Room B
E³ 24 E How to deal with common clinical breast symptoms
Moderators: Gábor Forrai; Budapest/HU  [E³ 24E-M]
Karen Kinkel; Chêne-Bougeries/CH  [E³ 24E-M]
» The acute painful breast  [E³ 24E-1]
Mihai Lesaru; Bucharest/RO
» How to manage nipple discharge  [E³ 24E-2]
Isabelle Thomassin-Naggara; Paris/FR

PANCREAS

Wednesday, March 11, 12:45–13:45, Room G
E³ 25 A Acute pancreatitis
Moderator: Riccardo Manfredi; Rome/IT  [E³ 25A-M]
» Atlanta classification of acute pancreatitis  [E³ 25A-1]
Thomas Boilen; Nieuwegein/NL
» Role of imaging  [E³ 25A-2]
Charikleia Triantopoulou; Athens/GR

Thursday, March 12, 12:45–13:45, Room C
E³ 25 B Chronic pancreatitis
Moderator: Celso Matos; Lisbon/PT  [E³ 25B-M]
» How to diagnose and classify  [E³ 25B-1]
Giulia Zamboni; Verona/IT
» Functional evaluation of chronic pancreatitis  [E³ 25B-2]
Maria A. Bali; Brussels/BE

Friday, March 13, 12:45–13:45, Room C
E³ 25 C Cystic neoplasms
Moderator: Thomas C. Lauenstein; Düsseldorf/DE  [E³ 25C-M]
» Intraductal papillary neoplasms  [E³ 25C-1]
Stephen Skehan; Dublin/IE
» Other cystic pancreatic neoplasms  [E³ 25C-2]
Raffaela Pozzi-Mucelli; Stockholm/SE

Saturday, March 14, 12:45–13:45, Room C
E³ 25 D Solid pancreatic neoplasms
Moderator: Byung Ihn Choi; Seoul/KR  [E³ 25D-M]
» Diagnosis  [E³ 25D-1]
Marc Zins; Paris/FR
» Staging  [E³ 25D-2]
Nikolaos Kartalis; Stockholm/SE

Sunday, March 15, 08:30–09:30, Room C
E³ 25 E Pancreatic adenocarcinoma mimickers
Moderator: Riccardo Negrelli; Verona/IT  [E³ 25E-M]
» Autoimmune pancreatitis  [E³ 25E-1]
Riccardo Manfredi; Rome/IT
» Paradoxical pancreatitis  [E³ 25E-2]
Giovanni Morana; Treviso/IT
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

**March 11**
**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

**March 11**
**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]

**March 11**
**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 VOLTURNO/IT

C. Image-guided interventions in ICU patients [E³ 418-4]
Liat Appelbaum; Jerusalem/IL

**March 12**
**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

**March 12**
**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

**March 13**
**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>
<th>Time</th>
<th>Location</th>
<th>Course Title</th>
<th>Level</th>
<th>Chairperson's Introduction</th>
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<tbody>
<tr>
<td>13 March</td>
<td>Friday, 08:30–10:00</td>
<td>Room M 2</td>
<td>E³ 919 Low-dose thoracic CT: only screening for lung cancer?</td>
<td>LEVEL II</td>
<td>Nigel Howarth; Chêne-Bougeries/CH</td>
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<td>E³ 1219 Infections of the chest</td>
<td>LEVEL II</td>
<td>Rok Cesar; Golnik/SI</td>
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<tr>
<td>14 March</td>
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<td>E³ 1319 Cardiovascular imaging in pregnancy</td>
<td>LEVEL II</td>
<td>Jean-Nicolas Dacher; Rouen/FR</td>
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<tr>
<td>14 March</td>
<td>Saturday, 14:00–15:30</td>
<td>Room M 2</td>
<td>E³ 1519 Mediastinal and cardiac tumours in adults</td>
<td>LEVEL II</td>
<td>Emmanuel E.J.G. Coche; Brussels/BE</td>
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<tr>
<td>14 March</td>
<td>Saturday, 16:00–17:30</td>
<td>Room M 2</td>
<td>E³ 1619 Pulmonary embolism/pulmonary hypertension</td>
<td>LEVEL II</td>
<td>Galit Aviram; Tel Aviv/IL</td>
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**HOW TO IMPROVE YOUR EXPERTISE IN CARDIOTHORACIC IMAGING**

- **March 13, Friday, 08:30–10:00, Room M 2**
  - E³ 919 Low-dose thoracic CT: only screening for lung cancer?
    - Chairperson's introduction
    - Nigel Howarth; Chêne-Bougeries/CH
    - A. Overview of lung cancer screening activities in European countries
      - Stefan Diederich; Düsseldorf/DE
    - B. Lung nodule management
      - Anna Rita Larici; Rome/IT
    - C. Coronary artery disease assessment as part of a lung cancer screening programme: how to do it?
      - Rozemarijn Vliegenthart; Groningen/NL

- **March 13, Friday, 16:00–17:30, Room M 2**
  - E³ 1219 Infections of the chest
    - Chairperson's introduction
    - Rok Cesar; Golnik/SI
    - A. Pulmonary infections
      - Jiri Neuwirth; Prague/CZ
    - B. Tuberculosis (TB)
      - Igor E. Tyurin; Moscow/RU
    - C. Infectious endocarditis
      - Hatem Alkadhi; Zurich/CH

- **March 14, Saturday, 08:30–10:00, Room M 2**
  - E³ 1319 Cardiovascular imaging in pregnancy
    - Chairperson's introduction
    - Jean-Nicolas Dacher; Rouen/FR
    - A. Pulmonary embolism: optimising patient’s selection and radiation protection
      - Christian Loewe; Vienna/AT
    - B. Acute aortic disease in pregnancy
      - Ricardo P.J. Budde; Rotterdam/NL
    - C. Imaging peripartum cardiomyopathy and other cardiac complications
      - Alexis Jacquier; Marseille/FR

**= Interactive introduction with electronic voting/self assessment**
# E³ – ADVANCED COURSES

## ARTIFICIAL INTELLIGENCE

### E³ 120  
**March 11, Wednesday, 08:30–10:00, Room M 5**  
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  
**March 11, Wednesday, 10:30–12:00, Room M 5**  
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  
**March 11, Wednesday, 14:00–15:30, Room M 5**  
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  
**March 11, Wednesday, 16:00–17:30, Room M 5**  
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  
**March 12, Thursday, 08:30–10:00, Room M 5**  
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  
**March 12, Thursday, 14:00–15:30, Room M 5**  
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

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= Interactive introduction with electronic voting/self assessment
**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  \(E^3 820-M\)

» Chairperson’s introduction  \(E^3 820-I\)

Laure S. Fournier; Paris/FR

A. Unravelling the mysteries of the black box: does radiomics enhance or complement biomarker data?  \(E^3 820-2\)

Ana Jimenez-Pastor; Valencia/ES

B. Working across modalities: how do we progress from redundant to relevant data?  \(E^3 820-3\)

Henry Woodruff; Maastricht/NL

C. Using radiomics in the clinic: a decision support tool?  \(E^3 820-4\)

Marius E. Mayerhöfer; Vienna/AT

» Panel discussion: How do we make sure radiomic analyses are ready for prime time use?  \(E^3 820-5\)

**INTERACTIVE TEACHING SESSIONS FOR YOUNG (AND NOT SO YOUNG) RADIOLOGISTS**

**Wednesday, March 11, 08:30–10:00, Room E**

**E3 121a Musculoskeletal tumours**  \(E^3 121a\)

A. Soft tissue tumours  \(E^3 121a-1\)

Filip M.H.M. Vanhoenacker; Antwerp/BE

B. Bone tumours  \(E^3 121a-2\)

F. Bilge Ergen; Ankara/TR

**Wednesday, March 11, 10:30–12:00, Room M 4**

**E3 221 Paediatric brain imaging**  \(E^3 221\)

A. Head and neck emergencies in children  \(E^3 221-1\)

Andrea Rossi; Genoa/IT

B. Acute neurological child beyond trauma  \(E^3 221-2\)

Baard Nedregaard; Oslo/NO

**Wednesday, March 11, 14:00–15:30, Room M 4**

**E3 321 Paediatric radiology for the general radiologist**  \(E^3 321\)

A. Pitfalls in paediatric chest and abdomen  \(E^3 321-1\)

Brian D. Coley; Cincinnati, OH/US

B. Paediatric musculoskeletal imaging: normal variants or real injuries?  \(E^3 321-2\)

Fermin Saez; Barakaldo/ES

**Wednesday, March 11, 16:00–17:30, Room F1**

**E3 421 Imaging of the liver**  \(E^3 421\)

A. CT and MRI liver imaging reporting and data system (LIRADS): how to use it and what to expect  \(E^3 421-1\)

Anna Darnell; Barcelona/ES

B. Focal lesions in non-cirrhotic liver: how to diagnose, differentiate and manage  \(E^3 421-2\)

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

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 721 Small bowel imaging
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 1221b Gastrointestinal radiology
A. Inflammatory bowel disease
   Jordi Rimola; Barcelona/ES
B. Rectal cancer staging: key findings
   Ivana Blazic; Belgrade/RS

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

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

Sunday, March 15, 08:30–10:00, Room F1
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 M 5
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

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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**Friday, March 13, 08:30–10:00, Room M 5**

**E³ 922** Whole-body imaging in metastatic urinary tract and prostate cancer

- **Chairperson’s introduction** [E³ 922-1]
  - Anwar R. Padhani; London/UK

- **A. Whole-body MRI: technique and reporting system**
  - Frédéric E. Lecouvet; Brussels/BE

- **B. Whole-body MRI and response assessment**
  - Nina Tunariu; London/UK

- **C. PET and PET/MRI in prostate cancer**
  - Irene A. Burger; Zurich/CH

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**Friday, March 13, 16:00–17:30, Room M 5**

**E³ 1222** Whole-body imaging in gynaecological malignancy

- **Chairperson’s introduction** [E³ 1222-1]
  - Pascal Rousset; Pierre-Benite/FR

- **A. Whole-body MRI for staging and treatment planning in ovarian cancer**
  - Vincent Vandecaveye; Leuven/BE

- **B. PET/CT and PET/MRI in cervix and endometrial cancer: current status**
  - Laie Umutlu; Essen/DE

- **C. Advanced imaging techniques in metastatic gynaecological cancer**
  - Evis Sala; Cambridge/UK

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**Saturday, March 14, 14:00–15:30, Room M 5**

**E³ 1522** Tumour relapse in urological cancer

- **Chairperson’s introduction** [E³ 1522-1]
  - Vibeke Logager; Copenhagen/DK

- **A. Prostate cancer relapse**
  - Valeria Panebianco; Rome/IT

- **B. Non prostate urological cancer relapse**
  - Hebert Alberto Vargas; New York, NY/US

- **C. Theranostics in urological cancer**
  - Markus Hartenbach; Vienna/AT

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**Saturday, March 14, 16:00–17:30, Room M 5**

**E³ 1622** Early detection of ovarian cancer

- **Chairperson’s introduction** [E³ 1622-1]
  - Rosemarie Forstner; Salzburg/AT

- **A. Current guidance on screening and familial ovarian cancer**
  - Angela George; London/UK

- **B. Ultrasound in ovarian tumours: the role of pattern recognition, IOTA, and O-RADS**
  - Joseph Yazbek; London/UK

- **C. O-RADS: MRI**
  - Isabelle Thomassin-Naggara; Paris/FR

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**Sunday, March 15, 08:30–10:00, Room M 5**

**E³ 1722** Early detection of prostate cancer

- **Chairperson’s introduction** [E³ 1722-1]
  - Arnaldo Stanzione; Naples/IT

- **A. Screening for prostate cancer: where are we now?**
  - Aslam Sohaib; London/UK

- **B. Pre-biopsy detection and new techniques for detection in prostate cancer**
  - Shonit Punwani; London/UK

- **C. Active surveillance: best practice**
  - Jurgen J. Fütterer; Nijmegen/NL
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**

**Wednesday, March 11, 10:30–12:00, Tech Gate Auditorium**

**Hybrid, Molecular and Translational Imaging**

**E3 226** Quantitative imaging in oncology

» Chairperson’s introduction [E3 226-1]
  James O’Connor; Manchester/UK

A. **Intra- and intertumoural heterogeneity and the impact for cancer diagnostics** [E3 226-2]
  Michel Eisenblätter; Münster/DE

B. **Quantitative image biomarkers for targeted tumour therapies** [E3 226-3]
  Roberto García Figueiras; Santiago de Compostela/ES

C. **From quantitative imaging to radiomics and deep learning** [E3 226-4]
  Horst K. Hahn; Bremen/DE

» Panel discussion: What can we quantify and why is it essential? [E3 226-5]

**Thursday, March 12, 08:30–10:00, Room N**

**Paediatric**

**E3 526a** Whole-body MRI in children

» Chairperson’s introduction [E3 526a-1]
  Goran Roic; Zagreb/HR

A. **Technical considerations: the basics** [E3 526a-2]
  Laura Tanturri de Horatio; Rome/IT

B. **Whole-body MRI in oncological conditions** [E3 526a-3]
  Annemieke S. Littooij; Utrecht/NL

C. **Whole-body MRI in musculoskeletal inflammation** [E3 526a-4]
  Elisabeth Von Brands; Oslo/NO

D. **The future role of MR-PET** [E3 526a-5]
  Sergios Gatidis; Tübingen/DE


**Thursday, March 12, 16:00–17:30, Tech Gate Auditorium**

**Vascular**

**E3 826** Cone-beam, 4D and more: new diagnostic tools for vascular diseases

» Chairperson’s introduction [E3 826-M]
  Tobias F. Jakobs; Munich/DE

A. **The role of intraprocedural perfusion assessment in peripheral arterial disease** [E3 826-1]
  Jim A. Reekers; Amsterdam/NL

B. **CT 4D imaging after thoracic endovascular aortic repair (TEVAR)** [E3 826-2]
  Rüdiger Schernthaner; Vienna/AT

C. **How cone-beam CT can change your practice in interventional radiology** [E3 826-3]
  Raman Uberoi; Oxford/UK

**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 [E3 1126-1]
  Mariana Horta; Lisbon/PT

A. **Nasopharynx: early tumour detection and imaging markers for treatment response** [E3 1126-2]
  Ann D. King; Hong Kong/CN

B. **Early glottic carcinoma: new insights relevant for tumour staging and patient management** [E3 1126-3]
  Davide Farina; Brescia/IT

C. **Oropharynx: risk stratification related to HPV association** [E3 1126-4]
  Agnieszka Trojanowska; Lublin/PL

» Panel discussion: Will new developments in imaging alter staging and treatment in head and neck oncology? [E3 1126-5]
## 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

**March 13, Friday, 16:00–17:30, Studio 2020**

## 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

**March 14, Saturday, 08:30–10:00, Room O**

## Chest

**E3 1326b** Autoimmune thoracic diseases  
**Moderator:** Philippe A. Grenier; Paris/FR  
A. Relapsing polychondritis  
  Anne Laure Brun; Paris/FR  
B. Alveolar proteinosis  
  Anastasia Oikonomou; Toronto, ON/CA  
C. Goodpasture syndrome and differentials  
  Anand Devaraj; London/UK

**March 14, Saturday, 08:30–10:00, Room F1**

## 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

**March 14, Saturday, 14:00–15:30, Darwin (Room D2)**

## Emergency Imaging

**E3 1726** Post-treatment emergencies in oncologic patients  
**Moderator:** Jonathan Spratt; Sunderland/UK  
A. Chest  
  Sebastian 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

**March 15, Sunday, 08:30–10:00, Room M 2**

# 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

**March 14, Saturday, 16:00–17:30, Studio 2020**

## Genitourinary

**E3 1626b** Prostate MRI: the accreditation issue  
**» Chairperson’s introduction**  
  Jonathan Richenberg; Brighton/UK  
A. Prostate MRI: minimum and optimal requirements  
  Jelle O. Barentsz; Nijmegen/NL  
B. Towards a European accreditation of prostate imaging centres  
  Vibeke Logager; Copenhagen/DK  
C. Towards a certified radiologist  
  Harriet C. Thoeny; Fribourg/CH

**» Panel discussion:** Prostate units: the radiologist must be in the core team  
  Harriet C. Thoeny; Fribourg/CH

**March 14, Saturday, 16:00–17:30, Room M 1**

## 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

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
<th>Workshop Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 11</td>
<td>Wednesday, 09:00–10:00, Room H</td>
<td>HW 130</td>
<td>Instructors: Patrick Asbach; Berlin/DE</td>
</tr>
<tr>
<td>March 11</td>
<td>Wednesday, 10:30–11:30, Room H</td>
<td>HW 230</td>
<td>Instructors: Alexander Baur; Berlin/DE</td>
</tr>
<tr>
<td>March 11</td>
<td>Wednesday, 14:30–15:30, Room H</td>
<td>HW 330</td>
<td>Instructors: Geert M. Villeirs; Ghent/BE</td>
</tr>
<tr>
<td>March 12</td>
<td>Thursday, 09:00–10:00, Room H</td>
<td>HW 530</td>
<td>Instructors: Anwar R. Padhani; London/UK</td>
</tr>
<tr>
<td>March 12</td>
<td>Thursday, 14:30–15:30, Room H</td>
<td>HW 730</td>
<td>Instructors: Lars Schimmöller; Düsseldorf/DE</td>
</tr>
<tr>
<td>March 12</td>
<td>Thursday, 16:00–17:00, Room H</td>
<td>HW 830</td>
<td>Instructors: Vibeke Logager; Copenhagen/DK</td>
</tr>
<tr>
<td>March 13</td>
<td>Friday, 16:00–17:00, Room H</td>
<td>HW 1230</td>
<td>Instructors: Bernd Hamm; Berlin/DE</td>
</tr>
<tr>
<td>March 14</td>
<td>Saturday, 09:00–10:00, Room H</td>
<td>HW 1330</td>
<td>Instructors: Patrick Asbach; Berlin/DE</td>
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</tbody>
</table>
**HANDS-ON WORKSHOPS**

**MRI OF PELVIC FLOOR**

All attendees are asked to bring along a laptop or tablet loaded with Dicom Viewer software.

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**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-compartments pelvic floor disorder (PFD)

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**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-compartments pelvic floor disorder (PFD)

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**Wednesday, March 11, 14:00–15:30, Room Z**

**HW 432 Hands-on Workshop:** Vascular ultrasound

**Instructors:** Diana Gaitini; Haida/IL
Maija 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
- Maija Radzina; Riga/LV

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**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 Peetrons; 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; Haifa/IL
Maija Radzina; Riga/LV

Demonstrators: Luca Aiani; Como/IT
Fabrizio Calliada; Pavia/IT
Diana Gaitini; Haifa/IL
Kristoffer Lindskov Hansen; Copenhagen/DK
Gordana Ivanac; Zagreb/HR
Maija 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 Alsaifi; 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.
ESR AT WORK SESSIONS

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 Zufiría; Barcelona/ES [EDIr 1-M]
» EDIr teaser [EDIr 1-1]
Laura Oleaga Zufiría; Barcelona/ES
» Tips from an EDIr holder [EDIr 1-2]
Albert Pons Escoda; Barcelona/ES

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 Zufiría; Barcelona/ES [EDIr 2-M]
» EDIr teaser [EDIr 2-1]
Laura Oleaga Zufiría; Barcelona/ES
» Tips from an EDIr holder [EDIr 2-2]
Christine Tolman; Gouda/NL

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 Zufiría; Barcelona/ES [EDIr 3-M]
» The Essential Guide publication by Springer [EDIr 3-1]
Laura Oleaga Zufiría; Barcelona/ES
» EDIr App: self-assessment [EDIr 3-2]
Winnifred van Lankeren; Rotterdam/NL
» EDIr App: structured reporting [EDIr 3-3]
Fermin Saez; Barakaldo/ES
» EDIr blog [EDIr 3-4]
Winnifred van Lankeren; Rotterdam/NL
» Discussion [EDIr 3-5]

14 March

Saturday, March 14, 14:00–15:00, Room M 3

EDIr Quiz EDIr Holders vs Audience [EDIr Quiz-M]

Moderators: Winnifred van Lankeren; Rotterdam/NL
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

ESOR SESSION
(European School of Radiology)

This session is organised by the European School of Radiology.
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 Subcommittee on PIER

» Chairpersons’ introduction
  Birgit Bauer; Abensberg/DE  [PA-1]
  Nikoleta I. Trakova; 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 Nyhssen; 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]

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 Subcommittee on PIER

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» 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]

Saturday, March 14, 16:00–17:30, 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]

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
JOINT SESSIONS

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.
JOINT SESSIONS

**EFOMP WORKSHOPS**
(European Federation of Organisations for Medical Physics)

Friday, March 13, 14:00-15:30, Descartes (Room D3)

**EF 11**  
CT protocol management and optimisation: management (part A)

**Moderator:** Marco Brambilla; Novara/IT  
**Chairperson’s introduction**  
Kirsten Nygaard Bolstad; Bergen/NO

» Developing a CT protocol management system (CT-PMS)  
Johan Sjöberg; Stockholm/SE

» A general framework for monitoring CT acquisition workflow  
Timothy Szczytkutowicz; Madison, WI/US

» Dose tracking systems as a tool for CT-PMS  
Federica Zanca; Leuven/BE

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

Friday, March 13, 16:00-17:30, Descartes (Room D3)

**EF 12**  
CT protocol management and optimisation: optimisation (part B)

**Moderator:** Annalisa Trianni; Udine/IT

» Chairperson’s introduction  
Mika Kortesniemi; Helsinki/FI

» Optimised acquisition and reconstruction protocols: chest CT  
Elly Castellano; London/UK

» Optimised acquisition and reconstruction protocols: cardiac CT  
Mannudeep Kalra; Boston, MA/US

» Optimised acquisition and reconstruction protocols: abdomen and CT angiography  
Nico Buys; Brussels/BE

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

**EFRS WORKSHOPS**
(European Federation of Radiographer Societies)

Wednesday, March 11, 14:00-15:30, Darwin (Room D2)

**EFRS WS 3**  
Growing radiography research

**Moderators:** Andrew England; Salford/UK  
Jonathan McNulty; Dublin/IE

» Building research collaboration: my top tips  
Carst Buissink; Groningen/NL

» The EFRS Research Hub  
Louise A. Rainford; Dublin/IE

» Grant writing: my top tips  
Karen Knapp; Exeter/UK

» Considering doctoral studies: my top tips  
Jonathan McNulty; Dublin/IE

» Making the most of the EFRS Radiographer Research Network  
Andrew England; Salford/UK

» Panel discussion: Is radiographer research essential for all radiographers?  

Wednesday, March 11, 16:00-17:30, Darwin (Room D2)

**EFRS WS 4**  
Public and patient involvement (PPI)

**Moderators:** Charlotte Beardmore; London/UK  
Erik Briers; Hasselt/BE

» The patient’s perspective: considering our voice  
Erik Briers; Hasselt/BE

» Patient, public and practitioner partnerships at a national level: a UK case study  
Rachel Harris; London/UK

» Public and patient involvement in education and training  
Helle Precht; Odense/DK

» Public and patient involvement in research  
Anastassia Negrouk; Brussles/BE

» The role of the EFRS in supporting public and patient engagement  
Jonathan McNulty; Dublin/IE

» Panel discussion: Public and patient involvement: are we doing enough?  

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This page contains information about joint sessions for the ECR 2020 conference, focusing on educational and scientific programs. It includes details on workshops and sessions on topics such as CT protocol management, optimisation, research collaboration, patient involvement, and grant writing. Each session is led by experts from various European regions and institutions.
ESHIMT SESSION
(European Society for Hybrid, Molecular and Translational Imaging)

Friday, March 13, 16:00–17:30, Room M 1

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 Rübenhaler; Munich/DE  [ESHIMT-M]

» Artefacts on PET/CT and PET/MRI  [ESHIMT-1]
   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
JOINT SESSIONS

JOINT SESSIONS
WITH RELATED SOCIETIES

11 March
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]

12 March
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 Briklačić; Zagreb/HR  [ESR/EFLM-2]

» Can we improve patient outcome by integrating radiology and laboratory medicine?  [ESR/EFLM-3]
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

Visibility of imaging professionals in the EU

» Chairpersons’ introduction
Miraude Adriaensen; Heerlen/NL  [ESR/UEMS-1]
Lorenzo Bonomo; Rome/IT  [ESR/UEMS-2]

» Putting your interests first: two approaches, one goal
Lorenzo E. Derchi; Genoa/IT

» The ESR approach
[ESR/UEMS-3]

» The UEMS approach
[ESR/UEMS-4]

» What does the EU mean for me? A radiologist’s guide
Katrine Riklund; Umeå/SE

» Creating a European radiology workforce: the value of qualifications across borders
Carlo Catalano; Rome/IT  [ESR/UEMS-6]
Vassilios Papalois; London/UK  [ESR/UEMS-7]

» Setting European standards for radiology: making your qualifications count at home and abroad
[ESR/UEMS-8]
Laura Oleaga Zufiría; Barcelona/ES

» Setting European standards for interventional neuroradiology: the UEMS ETR in INR
[ESR/UEMS-9]
Marek Sasiadek; Wroclaw/PL

» Setting European standards for ultrasound: which way to go?
[ESR/UEMS-10]
Paolo Ricci; Rome/IT

» Staying ahead of the curve with CME/CPD
Vassilios Papalois; London/UK

» The importance of CME/CPD across Europe: the role of EACCME
[ESR/UEMS-11]

» Which kind of European CME/CPD do the radiologists want to gain?
[ESR/UEMS-12]
Milos A. Lucic; Sremska Kamenica/RS

» Panel discussion: The state of radiology in the EU
[ESR/UEMS-13]

Friday, March 13, 08:30–10:00, Room K

Joint Session of the ESR and 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

» Pre-clinical and clinical applications of spectral photon counting CT (SPCCT)
[ESR/EFOMP-2]
Philippe C. Douek; Lyon/FR

» Physics evaluation and initial clinical results with the first full-field photon counting CT system based on silicon
[ESR/EFOMP-3]
Mats Danielsson; Stockholm/SE

» Digital mammography screening with photon counting technique: high diagnostic performance at low mean glandular dose
[ESR/EFOMP-4]
Maximilian F.J. Ryan; Cork/IE

» Panel discussion: Which clinical applications are foreseeable for the photon counting technology?
[ESR/EFOMP-5]

Friday, March 13, 14:00–15:30, Studio 2020

Joint Session of the EFRS and 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 related to artificial intelligence (AI) and the radiographer profession
[EFRS/ISRRT-3]
Nicholas Hans Woznitza; London/UK

» Ethical considerations in AI
[EFRS/ISRRT-4]
Adrian Brady; Cork/IE

» Considering AI in our education and training programmes
[EFRS/ISRRT-5]
Maryann Hardy; Bradford/UK

» Horizon scanning: the future of AI and the radiographer profession
[EFRS/ISRRT-6]
Melissa Jackowski; Angier, NC/US

» Panel discussion: What steps can be taken to better prepare radiographers for AI?
[EFRS/ISRRT-7]
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**14 March**  
**Saturday, March 14, 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  
Andrea G. Rockall; London/UK  
[ESR/ESMRMB-M]

» Challenges and solutions [ESR/ESMRMB-1]  
Andrew Webb; Leiden/NL

» The clinical use today [ESR/ESMRMB-2]  
Tim Sinnecker; Basle/CH

» New horizons [ESR/ESMRMB-3]  
Jannie Wijnen; Utrecht/NL

» Panel discussion: Does UHF MRI add more than cost? [ESR/ESMRMB-4]

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**15 March**  
**Sunday, March 15, 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:**  
Nandita M. deSouza; Sutton/UK  
[ESR/EORTC-M]

» Chairperson’s introduction [ESR/EORTC-1]  
Frédéric E. Lecouvet; Brussels/BE

» Prostate cancer: managing the oligometastatic patient [ESR/EORTC-2]  
Martin Spahn; Zurich/CH

» Whole-body MRI: is it ready for prime time to detect oligometastatic prostate cancer? [ESR/EORTC-3]  
Frederik de Keyzer; Leuven/BE

» Molecular imaging for directing and delivering therapy in oligometastatic prostate cancer [ESR/EORTC-4]  
Daniela Oprea-Lager; Amsterdam/NL

» Panel discussion: How, whom and when to image oligometastatic prostate cancer? [ESR/EORTC-5]

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**14 March**  
**Saturday, March 14, 08:30–10:00, Tech Gate Auditorium**

**Joint Session of the ESR and EFSUMB**

**ESR/EFSUMB**

**Bosniak cyst classification**

» Chairpersons’ introduction [ESR/EFSUMB-1]  
Dirk André Clevert; Munich/DE  
Paul S. Sidhu; London/UK  
[ESR/EFSUMB-2]

» Contrast-enhanced ultrasound (CEUS) in the classification of Bosniak cysts: is it better? [ESR/EFSUMB-3]  
Vito Cantisani; Rome/IT

» Role of CT and MRI [ESR/EFSUMB-4]  
Thomas Fischer; Berlin/DE

» Key recommendations of the EFSUMB clinical position paper on US-based Bosniak cyst classification [ESR/EFSUMB-5]  
Michele Bertolotto; Trieste/IT

» Interactive cases presentation with renal cysts [ESR/EFSUMB-6]  
Jolanta Makowska-Webb; Liverpool/UK  
Matthew Ragel; Liverpool/UK  
[ESR/EFSUMB-7]

» Panel discussion: How would you classify this complex renal cyst? [ESR/EFSUMB-8]

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= Interactive session with electronic voting/self assessment
Aim to be the best, learn from the best!
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?  
**[RC 101-1]** Dejan Ignjatovic; Oslo/NO

B. My CT protocol for staging colon cancer  
**[RC 101-2]** Anders Droisma; Oslo/NO

C. Integrated staging and vascular assessment  
**[RC 101-3]** Anne Negaard; Lørenskog/NO

**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  
**[RC 201-1]** Cácilia S. Reiner; Zurich/CH

B. Imaging of mesentery and omentum  
**[RC 201-2]** Max J. Lahaye; Amsterdam/NL

C. Imaging of the gallbladder  
**[RC 201-3]** Bart J. Op de Beeck; Antwerp/BE

**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  
**[RC 301-1]** Maxime Ronot; Clichy/FR

B. Low-dose abdominal CT for evaluating suspected appendicitis  
**[RC 301-2]** Kyoung Ho Lee; Seoul/KR

C. Acute colonic diverticulitis  
**[RC 301-3]** Sabine Schmidt Kobbe; Lausanne/CH

**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  
**[RPS 301b-K]** Ahmed Ba-Ssalamah; Vienna/AT

**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  
**[RPS 601b-K]** Maxime Ronot; Clichy/FR

**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]**
**Educational and Scientific Programme**

**REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS**

**Abdominal and Gastrointestinal**

### March 13

**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  
A. **CT protocol of the liver** [RC 901-1]  
Filipe Casiero 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

### March 13

**Friday, March 13, 11:15–12:30, Da Vinci (Room D1)**

**RPS 1001a**  
Advances in MRI techniques  
**Moderators:** Nickolas Papanikolaou; Lisbon/PT  
Francesco Regini; Florence/IT  
**» Keynote lecture** [RPS 1001a-K]  
Aart J. van der Molen; Leiden/NL

### March 13

**Friday, March 13, 11:15–12:30, Room G**

**RPS 1001b**  
Colon cancer: techniques for detection and staging  
**Moderators:** Anders Drolsum; Oslo/NO  
Lukás Lambert; Prague/CZ  
**» Keynote lecture** [RPS 1001b-K]  
Marc J. Gollub; New York, NY/US

### March 13

**Friday, March 13, 11:15–12:30, Room M 3**

**RPS 1001c**  
Liver imaging and beyond: giving answers to clinical questions  
**Moderators:** Rok Dezman; Ljubljana/SI  
Axel Wetter; Essen/DE

### March 14

**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  
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

### March 14

**Saturday, March 14, 11:15–12:30, Room F1**

**RPS 1401**  
Dos and don'ts for liver imaging reporting and data system (LI-RADS)  
**Moderators:** Nikola Borojevic; Warrington/UK  
Cäcilia S. Reiner; Zurich/CH

### March 14

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

**RC 1601**  
Imaging of pancreatitis  
**Moderator:** Kristina I. Ringe; Hannover/DE  
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

### March 15

**Sunday, March 15, 10:30–12:00, Room O**

**RC 1801**  
Imaging of the biliary system  
**Moderator:** Panos K. Prassopoulos; Thessaloniki/GR  
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  Mammmography and breast ultrasound: technical advances  
[ RPS 102-1 – RPS 102-15]

Moderators: Corinne S. Baileyguier; Villejúif/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  
[ LEVEL III]

» Chairperson’s introduction  [RC 302-1]
  Miri 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  
[ RPS 502-1 – RPS 502-13]

Moderators: Shabnam Bhandari Grover; New Delhi/IN  
[ RPS 502-M]
Maria Adele Marino; Messina/IT  
[ RPS 502-M]

» Keynote lecture  [RPS 502-K]

Thursday, March 12, 11:15–12:30, Room O

RPS 602a  Contrast-enhanced breast MRI and beyond  
[ RPS 602a-1 – RPS 602a-11]

Moderators: Olga Puchkova; Moscow/RU  
[ RPS 602a-M]
Rubina M. Trimboli; Milan/IT  
[ RPS 602a-M]

» Keynote lecture  [RPS 602a-K]
  Julia Camps Herrero; Valencia/ES

Thursday, March 12, 11:15–12:30, Room E

RPS 602b  High-risk situations in breast cancer  
[ RPS 602b-1 – RPS 602b-12]

Moderators: Magnus A. Lúðvíksson; Reykjavík/IS  
[ RPS 602b-M]
Stephanie Sauer; Würzburg/DE  
[ RPS 602b-M]

Thursday, March 12, 14:00–15:30, Coffee & Talk 2

RPS 702  Artificial intelligence, radiomics and more: part 1  
[ RPS 702-1 – RPS 702-13]

Moderators: Otso Arponen; Tampere/FI  
[ RPS 702-M]
Katja Pinker-Domenig; New York, NY/US  
[ RPS 702-M]

» Keynote lecture  [RPS 702-K]  
  Rüdiger Schulz-Wendtland; Erlangen/DE

Friday, March 13, 11:15–12:30, Room O

RPS 1002a  Contrast-enhanced x-ray imaging of the breast  
[ RPS 1002a-1 – RPS 1002a-12]

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  
[ RPS 1002b-1 – RPS 1002b-11]

Moderators: Eugen Divjak; Zagreb/HR  
[ RPS 1002b-M]
Mihai Lesaru; Bucharest/RO  
[ RPS 1002b-M]

» Keynote lecture  [RPS 1002b-K]  
  Claudia Kurtz; Lucerne/CH

Friday, March 13, 14:00–15:30, Room N

RC 1102  State of the art and recent developments in breast ultrasound  
[ LEVEL III]

Moderator: Alexandra Athanasiou; Athens/GR  
[ RC 1102-M]
A. Breast ultrasound: tell me the value of coloured images  [RC 1102-1]
  Corinne S. Baileyguier; Villejúif/FR
B. Automated breast ultrasound (ABUS): the right add-on in screening dense breast  [RC 1102-2]
  Athina Vourtsis; Athens/GR
C. Can artificial intelligence (AI) be helpful in the US-screening setting?  [RC 1102-3]
  Panagiotis Kapetas; Vienna/AT
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 Martincich; 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

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
Hanna Sartor; Lund/SE

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
Athena Vourtsis; Athens/GR

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)
RC 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
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

A. Uncoupling right ventricular physiology with cardiovascular magnetic resonance (CMR): from early adaptation to heart failure
   François Portana; Lille/FR

B. Assessment of PH by CT
   Elena Meshina; Moscow/RU

C. Cardiac imaging to monitor therapeutic response and predict outcome
   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

Moderators: Tilman Emrich; Mainz/DE
          Rozemarijn Vliegenthart; Groningen/NL

11 March Wednesday, March 11, 14:00–15:30, Coffee & Talk 2

RPS 303 Advanced CT and MR techniques

Moderators: Gianluca de Rubeis; Rome/IT
          Katarzyna Gruszczynska; Katowice/PL

12 March Thursday, March 12, 11:15–12:30, Studio 2020

RPS 603a Cardiomyopathies: functional assessment and deep phenotyping

Moderators: Nicola Galea; Rome/IT
          Alexis Jacquier; Marseille/FR

» Keynote lecture
  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

Moderators: Iacopo Carbone; Rome/IT
   Viktoria Wieske; Berlin/DE

» Keynote lecture
  Maria Nedeva; Sofia/BG

12 March Thursday, March 12, 14:00–15:30, Room F2

RPS 703 Cardiac function: advanced imaging techniques

Moderators: N.N.

13 March Friday, March 13, 11:15–12:30, Room K

RPS 1003a Emerging applications: cardioncology and athletes’ hearts

Moderators: Ekaterina Pershina; Moscow/RU
          Attila Tóth; Budapest/HU

» Keynote lecture
  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

Moderators: Florian Michallek; Berlin/DE
          Florian Wolf; Vienna/AT

» Keynote lecture
  Csilla Celeng; Utrecht/NL

13 March Friday, March 13, 14:00–15:30, Coffee & Talk 3

RPS 1103 Anatomic and functional assessment of CAD with CCTA: what’s new?

Moderators: Riccardo Faletti; Turin/IT

» Keynote lecture
  Udo Hoffmann; Boston, MA/US
**Refresher Courses / Research Presentation Sessions**

**Cardiac**

**Saturday, March 14, 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
- Morphology matters: cardiac CT can improve the outcome [RC 1303-2]
  - Giuseppe Muscogiuri; Milan/IT
- CT perfusion: integration of function will change the game [RC 1303-3]
  - Rozemarijn Vliegenthart; Groningen/NL
- 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]

**Saturday, March 14, 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]

**Saturday, March 14, 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

**Saturday, March 14, 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
- MRI: why and when [RC 1603-2]
  - Tim Leiner; Utrecht/NL
- Hybrid imaging [RC 1603-3]
  - Federico Caobelli; Basle/CH
- CT: how and why [RC 1603-4]
  - Fabian Bamberg; Freiburg/DE
- Panel discussion: What imaging test for which patient? [RC 1603-5]

**Sunday, March 15, 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
- CT-guided planning of minimally invasive procedures [RC 1703-2]
  - Rodrigo Salgado; Antwerp/BE
- Defining the optimal time to treat valvular heart disease: role of MRI [RC 1703-3]
  - Alban Redheuil; Paris/FR
- 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]

**Sunday, March 15, 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]
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]
- Lenke Hartmann; Rotterdam/NL

**D. Diagnosing pulmonary embolism (PE)**  [RC 304-3]
- Galit Aviram; Tel Aviv/IL

March 11

**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

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]
**REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS**

**March 11**
**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]

**March 12**
**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]

**March 12**
**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

**March 15**
**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]

**March 15**
**Sunday, March 15, 10:30–12:00, Room M 4**

**RC 1804** Back to basics: how to interpret a chest radiograph?  

» Chairperson’s introduction  
[RRC 1804-1]

Rok Cesar; Golnik/SI

A. A chest radiography reading guide  
[RRC 1804-2]  
Nicola Hilary Strickland; London/UK

B. Alveolar, interstitial and nodular syndromes  
[RRC 1804-3]  
Francesco Molinari; Lille/FR

C. Lobar atelectasis  
[RRC 1804-4]  
Denis Tack; Baudour/BE

D. Pleural syndrome  
[RRC 1804-5]  
Anagha P. Parkar; Bergen/NO

E. Mediastinal syndrome  
[RRC 1804-6]  
Mariaelena Occhipinti; Florence/IT

**March 14**
**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]

**March 14**
**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]

**March 15**
**Sunday, March 15, 10:30–12:00, Room M 4**

**RC 1804** Back to basics: how to interpret a chest radiograph?  

» Chairperson’s introduction  
[RRC 1804-1]

Rok Cesar; Golnik/SI

A. A chest radiography reading guide  
[RRC 1804-2]  
Nicola Hilary Strickland; London/UK

B. Alveolar, interstitial and nodular syndromes  
[RRC 1804-3]  
Francesco Molinari; Lille/FR

C. Lobar atelectasis  
[RRC 1804-4]  
Denis Tack; Baudour/BE

D. Pleural syndrome  
[RRC 1804-5]  
Anagha P. Parkar; Bergen/NO

E. Mediastinal syndrome  
[RRC 1804-6]  
Mariaelena Occhipinti; Florence/IT

**March 14**
**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]

**March 14**
**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]

**March 15**
**Sunday, March 15, 10:30–12:00, Room M 4**

**RC 1804** Back to basics: how to interpret a chest radiograph?  

» Chairperson’s introduction  
[RRC 1804-1]

Rok Cesar; Golnik/SI

A. A chest radiography reading guide  
[RRC 1804-2]  
Nicola Hilary Strickland; London/UK

B. Alveolar, interstitial and nodular syndromes  
[RRC 1804-3]  
Francesco Molinari; Lille/FR

C. Lobar atelectasis  
[RRC 1804-4]  
Denis Tack; Baudour/BE

D. Pleural syndrome  
[RRC 1804-5]  
Anagha P. Parkar; Bergen/NO

E. Mediastinal syndrome  
[RRC 1804-6]  
Mariaelena Occhipinti; Florence/IT

**March 15**
**Sunday, March 15, 08:30–10:00, 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]

**March 14**
**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]
REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS

Artificial Intelligence and Machine Learning

**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]

**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]

**Saturday, March 14, 11:15-12:30, Room B**

**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]

**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]

**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]

**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

**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

**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]

**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]

**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

11 March  
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-I)
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

11 March  
Wednesday, March 11, 14:00–15:30, Coffee & Talk 1

RPS 307  Deep learning and radiomics in prostate imaging

Modorators: Tahir Durmus; Berlin/DE  
Philippe Puech; Lille/FR  (RPS 307-M)

11 March  
Wednesday, March 11, 14:00–15:30, Da Vinci (Room D1)

RC 407  Acute and chronic pelvic pain

» Chairperson's introduction  (RC 407-I)
Olivera Nikolic; Novi Sad/RS
A. Acute pelvic pain  (RC 407-2)
Marijana Basta Nikolic; Novi Sad/RS
B. Chronic non-endometriotic pelvic pain  (RC 407-3)
Milagros Otero García; Vigo/ES
C. Endometrosis  (RC 407-4)
Rahel A. Kubik-Huch; Baden/CH
D. Embolisation of pelvic congestion syndrome  (RC 407-5)
Raman Uberoi; Oxford/UK

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

RC 407  Acute and chronic pelvic pain

» Chairperson's introduction  (RC 407-I)
Olivera Nikolic; Novi Sad/RS
A. Acute pelvic pain  (RC 407-2)
Marijana Basta Nikolic; Novi Sad/RS
B. Chronic non-endometriotic pelvic pain  (RC 407-3)
Milagros Otero García; Vigo/ES
C. Endometrosis  (RC 407-4)
Rahel A. Kubik-Huch; Baden/CH
D. Embolisation of pelvic congestion syndrome  (RC 407-5)
Raman Uberoi; Oxford/UK

11 March  
Wednesday, March 11, 16:00–17:30, Room M 1

RC 806  Advancing clinical hybrid imaging

Organised by ESHPI

» Chairperson's introduction  (RC 806-I)
Thomas H. Helbich; Vienna/AT
A. Cost-effectiveness of hybrid imaging  (RC 806-2)
Barbara M. Fischer; London/UK
B. PET/MRI in clinical routine  (RC 806-3)
Vicky J. Goh; London/UK
C. How PET/MRI enables accurate fusion of radiation treatment?  (RC 806-4)
Ulike van der Heide; Amsterdam/NL

12 March  
Thursday, March 12, 14:00–15:30, 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  
Michel Herranz; Santiago de Compostela/ES  
» Keynote lecture  (RPS 706-K)
Jiri Ferda; Plzen/CZ

12 March  
Thursday, March 12, 16:00–17:30, Room M 1

RC 806  Advancing clinical hybrid imaging

Organised by ESHPI

» Chairperson's introduction  (RC 806-I)
Thomas H. Helbich; Vienna/AT
A. Cost-effectiveness of hybrid imaging  (RC 806-2)
Barbara M. Fischer; London/UK
B. PET/MRI in clinical routine  (RC 806-3)
Vicky J. Goh; London/UK
C. How PET/MRI enables accurate fusion of radiation treatment?  (RC 806-4)
Ulike van der Heide; Amsterdam/NL

14 March  
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  
Irena Pashkunova-Martic; Vienna/AT  
» Keynote lecture  (RPS 1406-K)
Xavier Golay; London/UK

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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
  Charis Bourgioti; Athens/GR

- **A. Safety issues in pregnancy: what radiologists need to know** [RC 507-2]
  Michael Weston; Leeds/UK

- **B. Imaging acute abdomen in pregnancy** [RC 507-3]
  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

- **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 ESHIT®, 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

- **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

- **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

- **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?

- **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

- **Moderators:** Manca Garbajs; Ljubljana/SI [RPS 1407b-M]
  Dragos Negru; Iasi/RO [RPS 1407b-M]

» Keynote lecture [RPS 1407b-K]
  Natalia Rubtsova; Moscow/RU
Educational and Scientific Programme

REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS

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  
[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?  
[RC 308-1]  
Nadine Thieme; Berlin/DE  
A. Normative measures in the temporal bone  
[RC 308-2]  
Francis Veillon; Strasbourg/FR  
B. Normative measures in the orbit  
[RC 308-3]  
Romain Kohler; Sion/CH  
C. Anatomical variations of importance in dental implant planning  
[RC 308-4]  
Salvatore Cappabianca; Naples/IT  
D. Growing up or growing wrong  
[RC 308-5]  
Berit Verbist; Leiden/NL

**Wednesday, March 11, 16:00–17:30, Room M 3**

**RC 408**  
Imaging of eye and orbital pathologies  
[RC 408-1]  
Marc M. Lemmerling; Ghent/BE  
A. Traumatic lesions of the eye and orbit  
[RC 408-2]  
Angeliki Alianou; Neuchâtel/CH  
B. Infection and inflammation in the eye and orbit  
[RC 408-3]  
Katharina Erb-Eigner; Berlin/DE  
C. Benign and malignant masses of the eye and orbit  
[RC 408-4]  
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  
[Andrew S. McQueen; Newcastle/UK]
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REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS

Head and Neck

**Thursday, March 12, 16:00–17:30, Room F2**

**RC 808** Differential diagnoses you don’t want to miss [LEVEL II]

**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 [RPS 1008-1 – 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 [RPS 1408-1 – RPS 1408-11]

**Moderators:** Heidi Beate Eggesbø; Oslo/NO (RPS 1408-M)
Mariana Horta; Lisbon/PT (RPS 1408-M)

» Keynote lecture [RPS 1408-K]
Selen Bayraktaroglu; Izmir/TR

**Sunday, March 14, 14:00–15:30, Room B**

**RPS 1508** Skull base [LEVEL II]

» Chairperson’s introduction [RC 1508-1]
Bernhard F. Schuknecht; Zurich/CH

A. Skull base anatomy [RC 1508-2]
Elizabeth Loney; Halifax/UK

B. Infectious and inflammatory diseases of the skull base [RC 1508-3]
Timothy Beale; London/UK

C. Benign and malignant tumours of the skull base [RC 1508-4]
Alexandra Borges; Lisbon/PT

» Panel discussion: What are the challenges in assessing the skull base? [RC 1508-5]

**Wednesday, March 11, 08:30–10:00, Room M 3**


**Moderators:** Enrique Pinto; Liverpool/UK (RPS 109-M)

**Thursday, March 12, 11:15–12:30, Descartes (Room D3)**

**RPS 609a** Lung and mediastinal interventions [RPS 609a-1 – RPS 609a-12]

**Moderators:** Miltiadis Krokidis; Cambridge/UK (RPS 609a-M)
Leyla Musayeva; Baku/AZ (RPS 609a-M)

**Friday, March 13, 08:30–10:00, Room C**

**RPS 909** Neuro-interventions [RPS 909-1 – RPS 909-15]

**Moderators:** Hemant Patel; Ahmedabad/IN (RPS 909-M)

**Friday, March 13, 11:15–12:30, Coffee & Talk 3**

**RPS 1008** Temporal bone and auditory pathway [RPS 1008-1 – 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 [RPS 1408-1 – RPS 1408-11]

**Moderators:** Heidi Beate Eggesbø; Oslo/NO (RPS 1408-M)
Mariana Horta; Lisbon/PT (RPS 1408-M)

» Keynote lecture [RPS 1408-K]
Selen Bayraktaroglu; Izmir/TR

**Sunday, March 15, 10:30–12:00, Coffee & Talk 2**

**RPS 1808** Imaging of the neck: more than thyroid [RPS 1808-1 – RPS 1808-15]

**Moderators:** Nikoleta I. Traykova; Plovdiv/BG (RPS 1808-M)
## Interventional Radiology

**March 14, Saturday, 11:15–12:30, Coffee & Talk 1**

**RPS 1409a**  
Interventional practice, dose management and education  
Moderators: Viktor Bérczi; Budapest/HU  
(RPS 1409a-1 - RPS 1409a-11)

**RPS 1409b**  
Peripheral arterial interventions  
Moderators: Zoltán Bánsághi; Budapest/HU  
(RPS 1409b-1 - RPS 1409b-11)

**March 14, Saturday, 11:15–12:30, Room G**

**RPS 1609**  
Genitourinary interventions  
Moderators: Richard Nolz; Vienna/AT  
Bora Peynircioğlu; Ankara/TR  
(RPS 1609-1 - RPS 1609-15)

**March 15, Sunday, 08:30–10:00, Room O**

**RPS 1709**  
TIPS and liver venous intervention  
Moderators: Guillermo Elizondo-Riojas; Monterrey/MX  
Pierleone Lucatelli; Rome/IT  
(RPS 1709-1 - RPS 1709-13)

**Keynote lecture**  
(RPS 1709-K)

## Musculoskeletal

**March 11, Wednesday, 08:30–10:00, Room M 1**

**RPS 110**  
Cartilage, bone marrow oedema, tissue and body imaging  
Moderators: Bernhard Tins; Oswestry/UK  
Evangelia Vassalou; Iraklion/GR  
(RPS 110-1 - RPS 110-15)

**March 14, Saturday, 11:15–12:30, Room G**

**RPS 1409b**  
Peripheral arterial interventions  
Moderators: Zoltán Bánsághi; Budapest/HU  
(RPS 1409b-1 - RPS 1409b-11)

**March 11, Wednesday, 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  
Paul O'Donnell; Stanmore/UK

B. Soft tissue tumours  
Alberto Bazzocchi; Bologna/IT

C. Tumours of the spinal column  
Filip M.H.M. Vanhoenacker; Antwerp/BE

**March 11, Wednesday, 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  
Maryam Shahabpour; Brussels/BE

B. Extra-articular source of pain  
Guillaume Bierry; Strasbourg/FR

C. Imaging-guided percutaneous treatment of forefoot pain  
Roberto Luigi Cazzato; Strasbourg/FR

**March 12, Thursday, 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  
Maria Tzaloniou; Athens/GR

B. Meniscal abnormalities: obvious and subtle  
Patrick Omoumi; Lausanne/CH

C. Cruciate and collateral ligaments  
Anagha P. Parkar; Bergen/NO

**March 12, Thursday, 11:15–12:30, Room B**

**RPS 610**  
Ultrasound, interventions and new techniques  
Moderators: Georgina M. Allen; Oxford/UK  
(RPS 610-1 - RPS 610-12)

**Keynote lecture**  
(RPS 610-K)
Musculoskeletal

**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. Spondyloarthitis: 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
A. Degeneration of the old spine: relevance of findings and differential diagnosis  
   Victor N. Cassar-Pullicino; Oswestry/UK
B. Fractures: bone fragility in the elderly, assessing osteoporosis and bone quality, and differential diagnosis  
   Giuseppe Guglielmi; Andria/IT
C. Interventional radiology: is there still a place for vertebroplasty and kypho-/stentoplasty  
   Christoph Binkert; Winterthur/CH

**Friday, March 13, 11:15–12:30, Room B**

**RPS 1010a**  
Artificial intelligence (AI) and new techniques in MRI  
 Moderator: Luca M. Sconfienza; Milan/IT
A. Degeneration of the old spine: relevance of findings and differential diagnosis  
   [RPS 1010a-M]
B. Spondyloarthitis: a diagnostic chameleon  
   [RPS 1010a-M]
C. Infection: imaging, indication and techniques for biopsy  
   [RPS 1010a-M]

**Friday, March 13, 11:15–12:30, Room M 4**

**RPS 1010b**  
Hip, pelvis and lower extremity  
 Moderator: P. Diana Afonso; Lisbon/PT
A. Degeneration of the old spine: relevance of findings and differential diagnosis  
   [RPS 1010b-M]
B. Spondyloarthitis: a diagnostic chameleon  
   [RPS 1010b-M]
C. Infection: imaging, indication and techniques for biopsy  
   [RPS 1010b-M]

**Friday, March 13, 14:00–15:30, Room M 5**

**RPS 1110**  
Knee  
[RS 1110-1 – RPS 1110-13]
Moderators: Ziga Snoj; Ljubljana/SI
A. Spondyloarthitis: a diagnostic chameleon  
   [RPS 1110-M]
B. Crystals: may also affect the spine  
   [RPS 1110-M]
» Keynote lecture  
   Salvatore Cappabianca; Naples/IT

**Saturday, March 14, 11:15–12:30, Room F2**

**RPS 1410a**  
Spine and inflammatory disorders  
[RS 1410a-1 – RPS 1410a-12]
Moderators: Magdalena S. Posadzy; Poznan/PL
Winston Joseph Rennie; Leicester/UK

**Saturday, March 14, 11:15–12:30, Room M 4**

**RPS 1410b**  
Tumours and bone density  
[RS 1410b-1 – RPS 1410b-12]
Moderators: Silvia Mariani; L’Aquila/IT
Monique Reijnierse; Leiden/NL

**Saturday, March 14, 14:00–15:30, Room C**

**RPS 1610**  
Knee and lower extremities  
[RS 1610-1 – RPS 1610-15]
Moderators: Antonio Barile; L’Aquila/IT
Musculoskeletal Neuro

**Musculoskeletal**

**Saturday, March 14, 16:00–17:30, Room F2**

**RC 1610** Musculoskeletal infection  
**Moderator:** Mitja Ruprecht; Maribor/SI  
**A. Imaging osteomyelitis: an update**  
Jan Fritz; Baltimore, MD/US  
**B. Soft tissue infections**  
Silvia Martin; Palma de Mallorca/ES  
**C. Septic arthritis**  
Radhesh Lalani; Oswestry/UK

**Sunday, March 15, 08:30–10:00, Room F2**

**RC 1710** Muscle oedema, injury and atrophy  
**Moderator:** Maximilian F. Reiser; Munich/DE  
**A. Non-infectious causes of muscle inflammation and muscle injury due to nerve entrapment**  
Nadja Saupe; Zurich/CH  
**B. Traumatic and overuse injuries of the muscles**  
Franz Kainberger; Vienna/AT  
**C. Sarcopenia: more than just atrophy**  
Violeta Vasilevska-Nikodinovska; Skopje/MK

**Sunday, March 15, 08:30–10:00, Room M 1**

**RPS 1710** Upper extremities and facial bones  
**Moderators:** Helga Brøgger; Oslo/NO  
Benedikt J. Schwaiger; Munich/DE  
**Keynote lecture**  
Marco Zanetti; Zurich/CH

**Sunday, March 15, 10:30–12:00, Descartes (Room D3)**

**RC 1810** Elbow imaging: from detailed anatomy to pathology  
**Moderator:** Andrea B. Rosskopf; Zurich/CH  
**A. The medial and lateral epicondyle**  
Milko C. De Jonge; Utrecht/NL  
**B. Biceps and triceps**  
Alberto Tagliafico; Genoa/IT  
**C. Plicae and articular cartilage**  
Andrea Alcalá-Galiano; Madrid/ES

**Neuro**

**Wednesday, March 11, 08:30–10:00, Room N**

**RC 111** Cranio-cervical junction  
**Chairperson’s introduction**  
Johan Van Goethem; Antwerp/BE  
**A. Congenital abnormalities**  
Andrea Rossi; Genoa/IT  
**B. Trauma**  
Ashok Adams; London/UK  
**C. Systemic diseases and tumours**  
Karl-Olof Lövblad; Geneva/CH  
**Panel discussion:** Imaging strategies for assessing the cranio-cervical junction

**Wednesday, March 11, 10:30–12:00, Room F1**

**RPS 211** Spine and nerves  
**Moderators:** Simonetta Gerevini; Milan/IT  
Hülya Özdemir; Adana/TR

**Wednesday, March 11, 10:30–12:00, Room K**

**RC 211** Sellar and suprasellar lesions  
**Keynote lecture**  
Dragan A. Stojanov; Nis/RS

**Wednesday, March 11, 14:00–15:30, Room X**

**RPS 311** Gadolinium retention and neurovascular imaging  
**Moderators:** Kresimir Dolic; Split/HR  
Zsigmond Tamás Kincses; Szeged/HU

**Wednesday, March 11, 16:00–17:30, Room M 4**

**RPS 411** Paediatric neuroimaging and neuroanatomy  
**Moderators:** Nadezhda Plakhotina; St. Petersburg/ RU
**REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS**

**Neuro**

**12 March**

**Thursday, March 12, 08:30–10:00, Room M 4**

**RC 511**  
Brain tumours: new things you should know  
**LEVEL III**

» Chairperson's introduction  
Dora Zlateva; 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

» Panel discussion: Radiomics in brain tumour imaging  
[RC 511-5]

**12 March**

**Thursday, March 12, 11:15–12:30, Room F2**

**RPS 611a**  
Neurodegenerative diseases  
[RPS 611a-I – RPS 611a-II]

**Moderators:**  
Jasmina Boban; Novi Sad/RS  
[RPS 611a-M]  
Bozena Góraj; Nijmegen/NL  
[RPS 611a-M]

**12 March**

**Thursday, March 12, 11:15–12:30, Room M 4**

**RPS 611b**  
Multiple sclerosis  
[RPS 611b-I – RPS 611b-II]

**Moderators:**  
Costanza Giannì; Rome/IT  
[RPS 611b-M]  
Alejandro Rovira-Cañellas; Barcelona/ES  
[RPS 611b-M]

» Keynote lecture  
Frederik Barkhof; Amsterdam/NL

**12 March**

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

**RC 711**  
Inflammatory and infectious central nervous system (CNS) pathology  
**LEVEL II**

» Chairperson's introduction  
Ali Murat Koc; Izmir/TR

A. Autoimmune encephalitis  
[RC 711-2]  
Philippe Demaereel; 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

» 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?  
[RC 711-5]

**13 March**

**Friday, March 13, 08:30–10:00, Room F2**

**RC 911**  
Neuromuscular imaging  
**LEVEL III**

» Chairperson's introduction  
Leroy ten Dam; Amsterdam/NL

A. How to image patients with neuromuscular disease  
Marc-André Weber; Rostock/DE

B. How to report congenital myopathies  
Anna Pichiecchio; Pavia/IT

C. How to recognise adult neuromuscular disease?  
Sachit Shah; London/UK

» Panel discussion: Recent developments in muscle imaging  
[RC 911-5]

**13 March**

**Friday, March 13, 11:15–12:30, Room C**

**RPS 1011a**  
Brain tumours  
[RPS 1011a-I – RPS 1011a-II]

**Moderators:**  
Andrei I. Holodny; New York, NY/US  
[RPS 1011a-M]  
Pablo Naval Baudín; L’Hospitalet de Llobregat/ES  
[RPS 1011a-M]

» Keynote lecture  
Carlos Majós; L’Hospitalet de Llobregat/ES

**13 March**

**Friday, March 13, 11:15–12:30, Room M 1**

**RPS 1011b**  
Radiomics and deep learning in neuroimaging  
[RPS 1011b-I – RPS 1011b-II]

**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-I – RPS 1111-II]

**Moderators:**  
Francesca Bozzetti; Parma/IT  
[RPS 1111-M]  
Costanza Giannì; Rome/IT  
[RPS 1111-M]  
Alejandro Rovira-Cañellas; Barcelona/ES  
[RPS 1111-M]

» Keynote lecture  
Frederik Barkhof; Amsterdam/NL
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**REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS**  
**Neuro**

### Saturday, March 14, 11:15–12:30, Studio 2020

**RPS 1411a**  
Arterial spin labeling brain perfusion  
[RC 1411a-1 - RC 1411a-12]  
**Moderators:**  
Agata Majos; Lodz/PL  
Manoj Mannil; Zurich/CH

### Saturday, March 14, 11:15–12:30, Room M 2

**RPS 1411b**  
Stroke  
[RC 1411b-1 - RC 1411b-11]  
**Moderators:**  
Charlotte Trampedach; Køge/DK  
Jerzy Walecki; Warsaw/PL

### Saturday, March 14, 11:15–12:30, Tech Gate Auditorium

**RPS 1411c**  
New and advanced neuroimaging  
[RC 1411c-1 - RC 1411c-12]  
**Moderators:**  
David Ozretić; Zagreb/HR

### Saturday, March 14, 14:00–15:30, Room G

**RC 1511**  
Update on cerebrospinal fluid (CSF) diseases  
**Moderator:** Zulejha Merhemic; Sarajevo/BA  
**A. Imaging strategies for hydrocephalus**  
Joanna Bladowska; Wroclaw/PL

### Saturday, March 14, 16:00–17:30, Coffee & Talk 2

**RPS 1611**  
Functional MRI and diffusion tensor imaging  
[RC 1611-1 - RC 1611-15]  
**Moderators:**  
Dorothee P. Auer; Nottingham/UK
**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**  
**LEVEL III**

- **Chairperson's introduction**  
  Nadica Mitreska; Skopje/MK

- **A. Use of fluoroscopy in neonates with suspected gastrointestinal pathology**  
  Ingegerd Aagenaes; Oslo/NO

- **B. Gastrointestinal and other applications in the older child**  
  Joy Barber; London/UK

- **C. Urogenital applications**  
  Giulia Perucca; Turin/IT

- **Panel discussion: When can ultrasound imaging replace fluoroscopy?**  
  Karen Rosendahl; Bergen/NO

**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  
  Samuel Stafrace; Doha/QA

**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  
  Elida Vázquez; Barcelona/ES

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

**RC 412**  
**Intensive care paediatric radiology: the very sick neonate**  
**LEVEL III**

- **Chairperson's introduction**  
  Samuel Stafrace; Doha/QA

- **A. Neuroimaging in the neonatal intensive care unit**  
  Maria I. Argyropoulou; Ioannina/GR

- **B. Chest imaging in the ICU: tubes and catheters**  
  Maria Luisa Lobo; Lisbon/PT

- **C. Emergencies in the critically ill neonate: abdominal US applications and beyond**  
  Michael Riccabona; Graz/AT

- **Panel discussion: Is there a role for FAST scan in the paediatric ICU?**  
  Aikaterini Kanavaki; Athens/GR

**Thursday, March 12, 08:30–10:00, Descartes (Room D3)**

**RC 512**  
**Optimising the management of children with cancer: how to improve?**  
**LEVEL III**

- **Jointly organised by ESHi(MT) and ESPR**

- **Chairperson's introduction**  
  Karen Rosendahl; Bergen/NO

- **A. The role of SPECT and SPECT/CT**  
  Boel Johnsen; Bergen/NO

- **B. Can PET/MRI replace PET/CT?**  
  Helen Nadel; Stanford, CA/US

- **C. Radiation doses and patient exposure issues**  
  Hunor Kertesz; Vienna/AT

- **Panel discussion: The future direction of nuclear medicine imaging in paediatric oncology**  
  Aikaterini Kanavaki; Athens/GR

**Friday, March 13, 08:30–10:00, Room O**

**RC 912**  
**Foetal imaging and postnatal correlation**  
**LEVEL III**

- **Chairperson's introduction**  
  Daniela Prayer; Vienna/AT

- **A. Foetal MRI advanced techniques**  
  Gregor Kasprian; Vienna/AT

- **B. Corpus callosum anomalies: pre- and postnatal correlation**  
  Elida Vázquez; Barcelona/ES

- **C. Foetal MRI of acquired brain pathology**  
  Laurent Guibaud; Lyon/FR

- **D. Pre- and postnatal congenital cystic renal diseases**  
  Fred E. Avni; Lille/FR

- **Panel discussion: How to overcome the challenges in foetal MRI in routine practice and research**  
  Baptiste Morel; Tours/FR

**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  
  Aikaterini Kanavaki; Athens/GR
REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS

**Paediatric**

**Physics in Medical Imaging**

### 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  
(RPS 1012b-M)  
Annemiek S. Littooij; Utrecht/NL  
(RPS 1012b-M)

- **Keynote lecture**  
  Paul David Humphries; London/UK

### Saturday, March 14, 16:00–17:30, Room G

**RC 1612** Imaging in abdominal emergencies: an (evidence-based) update  
(RC 1612-M)

**Moderator:** Charlotte E. de Lange; Oslo/NO  
(RC 1612-M)

- **A. The acute abdomen in neonates**  
  Ana Coma; Barcelona/ES  
  (RC 1612-1)
- **B. The acute abdomen in young children**  
  Alistair D. Calder; London/UK  
  (RC 1612-2)
- **C. Polytrauma: differences between adult and paediatric protocols**  
  Cornelia J.L. Eriksen; Oslo/NO  
  (RC 1612-3)

### Sunday, March 15, 10:30–12:00, Da Vinci (Room D1)

**RC 1812** Imaging of frequent queries in children: an evidence-based approach  
(RC 1812-M)

- **Keynote lecture**  
  Stéphanie Franchi-Abella; Le Kremlin-Bicêtre/FR  
  (RC 1812-K)
- **A. Abdominal pain: constipation and beyond**  
  Ian Robinson; Dublin/IE  
  (RC 1812-1)
- **B. Respiratory tract infections**  
  Pierluigi Ciet; Rotterdam/NL  
  (RC 1812-2)
- **C. Large and small heads: when and how to image**  
  Umit Yaşar Ayaz; Mersin/TR  
  (RC 1812-3)
- **D. The limping child**  
  Ignasi Barber; Esplugues de Llobregat/ES  
  (RC 1812-4)
- **Panel discussion:** The requisites for usual paediatric indications  
  (RC 1812-6)

### 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  
(RPS 113-M)  
Natalia Saltybaeva; Zurich/CH  
(RPS 113-M)

### 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  
  Johan Sjöberg; Stockholm/SE  
  (RC 413-1)
- **A. Updates and future perspectives to DR technology**  
  Juha Peltonen; Helsinki/FI  
  (RC 413-2)
- **B. Updates and future perspectives to CT technology**  
  Marc Kachelrieß; Heidelberg/DE  
  (RC 413-3)
- **C. Updates and future perspectives to IR and angiography technology**  
  Nicholas Marshall; Leuven/BE  
  (RC 413-4)

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

**RC 513** Demystifying MRI: things you always wanted to know  
(RC 513-M)

**Moderator:** Paddy Gilligan; Dublin/IE  
(RC 513-M)

- **A. Basic MRI: the building blocks of pulse sequences**  
  Andrew Webb; Leiden/NL  
  (RC 513-1)
- **B. MRI basic concepts: how to turn signals into images**  
  David J. Lurie; Aberdeen/UK  
  (RC 513-2)
- **C. Practical MRI: a toolkit of standard MR pulse sequences**  
  Ioannis Seimenis; Alexandropolis/GR  
  (RC 513-3)

### 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  
(RPS 613-M)  
Laure Fourmier Pompidou; Paris/FR  
(RPS 613-M)
**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-I]

Eleni Samara; Sion/CH

A. Breast imaging dosimetry [RC 713-2]

Ioannis Sechopoulos; Nijmegen/NL

B. Patient dosimetry in CT [RC 713-3]

Sue Edyevean; 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-I]

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
Wednesday, March 11, 08:30–10:00, Darwin (Room D2)

**RC 114** The role of radiographers in ensuring quality in practice

**Chairpersons’ introduction**
Jiri Ferda; Plzen/CZ  [RC 114-1]
Dean Pekarovic; Ljubljana/SI  [RC 114-2]

**A. The radiographers’ role in justification**  [RC 114-3]
Pavel Ratafia; Brno/ CZ

**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 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]

Wednesday, March 11, 10:30–12:00, Room M1

**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]
Jose 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]
Vitor Silva; Porto/PT

**Panel discussion:** How can we ensure MRI radiographers keep up to date with evolving safety requirements?  [RC 414-6]

Thursday, March 12, 11:15–12:30, Room K

**RPS 614** Computed tomography: examination improvement  [RPS 614-1 – RPS 614-11]

**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
[RPS 1014a-M]
Malgorzata Szcerbo-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
[RPS 1014b-M]
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
[RPS 1414-M]
Vasilis Syrgiamiotis; Athens/GR
[RPS 1414-M]

» Keynote lecture [RPS 1414-K]
Christina Malamateniou; London/UK

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 [RC 1614-3]
Dejan Hribar; Ljubljana/SI

B. Practical tips for radiographers in CT scanning of the thorax and abdomen [RC 1614-4]
Svea Deppe Mørup; Odense/DK

C. Practical tips for radiographers when scanning paediatric imaging [RC 1614-5]
Berit Moeller Christensen; Jönköping/SE

» 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
[RPS 1714-M]
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 Birsasteana; Timisoara/RO
[RC 1714-1]
Tina Starc; Ljubljana/SI
[RC 1714-2]

A. Effective communication: a key leadership and management tool [RC 1714-3]
Julie Michelle Nightingale; Sheffield/UK

B. Leading change: key considerations and tools to motivate radiography teams in quality management [RC 1714-4]
Zinaida Läänelaid; Tartu/EE

C. Inclusive leadership: equality, diversity and inclusion [RC 1714-5]
Louise A. Rainford; Dublin/IE

» Panel discussion: Developing future radiographer leaders: what support do current clinical and academic leaders need? [RC 1714-6]
REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS

Vascular

11 March

Wednesday, March 11, 10:30–12:00, Room M 3
RC 215  Venous thrombotic disease [LEVEL II]

» 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]

12 March

Thursday, March 12, 11:15–12:30, Room X
RPS 615  CT in vascular imaging  [RPS 615-1 – RPS 615-11]

Moderators: Vasileios Rafailidis; Thessaloniki/GR  [RPS 615-M]

» Keynote lecture  [RPS 615-K]
   Maija Radzina; Riga/LV

13 March

Friday, March 13, 14:00–15:30, Coffee & Talk 2
RPS 1115  Pulmonary arteries, veins, aorta, carotid and lymphatics  [RPS 1115-1 – RPS 1115-15]

Moderators: Aad van der Lugt; Rotterdam/NL  [RPS 1115-M]

14 March

Saturday, March 14, 11:15–12:30, Room X
RPS 1415  Advances in vascular imaging  [RPS 1415-1 – RPS 1415-12]

Moderators: Udo Hoffmann; Boston, MA/US  [RPS 1415-M]
   Rüdiger Scherntner; Vienna/AT  [RPS 1415-M]

14 March

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

15 March

Saturday, March 14, 16:00–17:30, Da Vinci (Room D1)
RC 1615  Visceral arteries [LEVEL II]

» Chairperson's introduction  [RC 1615-1]
   Jim A. Reekers; Amsterdam/NL
A. Diagnosis of abdominal vascular compression syndromes  [RC 1615-2]
   Barbaros Erhan Cil; İstanbul/TR
B. Acute and chronic mesenteric ischaemia  [RC 1615-3]
   Marc Zins; Paris/FR
C. Endovascular treatment of mesenteric ischaemia  [RC 1615-4]
   Robert Morgan; London/UK

» Panel discussion: Radiologists as the best case managers in acute and chronic mesenteric ischaemia  [RC 1615-5]

15 March

Sunday, March 15, 10:30–12:00, Room G
RPS 1815  MR in vascular imaging  [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]

15 March

Sunday, March 15, 10:30–12:00, Room M 2
RC 1815  Carotid disease 2.0 [LEVEL II]

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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Details at www.myEBR.org
11 March
Wednesday, March 11, 08:30–10:00, Room O
RPS 116 Oncologic imaging in genitourinary: kidney and prostate, advanced topics

Moderators: Giulia Frauenfelder; Rome/IT
Heinz-Peter Schlemmer; Heidelberg/DE

RC 316 Peritoneal carcinomatosis: the role of imaging in detection and treatment planning?

Moderator: Max J. Lahaye; Amsterdam/NL

A. Detection and characterisation: tips and tricks
Laure S. Fournier; Paris/FR

B. Surgical view: citoreductive surgery
Anne-Sophie Bats; Paris/FR

C. Imaging in treatment planning and follow-up
Giulia Zamboni; Verona/IT

12 March
Thursday, March 12, 11:15–12:30, Coffee & Talk 1
RPS 616a Musculoskeletal tumours and body composition quantitation

Moderators: Amanda Isaac; London/UK
Laurent Kintzelé; Heidelberg/DE

RPS 616b Metastatic malignancies: advanced diagnosis and radiomics data

Moderators: Raquel Perez-Lopez; Barcelona/ES
Evis Sala; Cambridge/UK

13 March
Friday, March 13, 08:30–10:00, Room M 3
RPS 916 Brain, head and neck tumours: advanced imaging and radiomics

Moderators: Christoph Stippich; Zurich/CH
Giuseppe Zanirato Rambaldi; Bologna/IT

13 March
Friday, March 13, 11:15–12:30, Room X
RPS 1016 Breast and gynecologic advanced imaging and radiomics

Moderators: Ravikanth Balaji; Chennai/IN
Valeria Romeo; Naples/IT

14 March
Saturday, March 14, 11:15–12:30, Descartes (Room D3)
RPS 1416a Chest malignancies: advanced imaging and radiomics

Moderators: Theresa C. McLoud; Boston, MA/US
Iryna Vasylyiv; Kiev/UA
REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS

Oncologic Imaging

14 March | Saturday, March 14, 11:15–12:30, Room M 3

RPS 1416b  Multiple myeloma and lymphoma: advanced imaging and radiomics
[RC 1416b-2 – RPS 1416b-12]

Moderators: Olwen Westerland; London/UK
[RPS 1416b-M]

14 March | Saturday, March 14, 14:00–15:30, Studio 2020

RPS 1516  Gastrointestinal and pancreatic advanced imaging and radiomics in oncology
[RC 1516-1 – RPS 1516-15]

Moderators: Georgios Kaisiss; Munich/DE
[RPS 1516-M]
Siarhei Kharuzhyk; Minsk/BY
[RPS 1516-M]

15 March | Sunday, March 15, 08:30–10:00, Descartes (Room D3)

RC 1716  Tumour response assessment LEVEL II in abdominal imaging

Moderator: Olga V. Kucheruk; Moscow/RU
[RC 1716-M]
A. Size-based assessment: metrics and pitfalls [RC 1716-1]
Melvin D’Anastasi; Msida/MT

B. Diffusion weighted imaging (DWI) and dynamic contrast-enhancement (DCE): opportunities [RC 1716-2]
Dow-Mu Koh; Sutton/UK

C. Nuclear medicine and molecular approaches [RC 1716-3]
Clemens C. Cyran; Munich/DE

D. Immunotherapy and imaging [RC 1716-4]
Daniele Regge; Turin/IT

15 March | Sunday, March 15, 10:30–12:00, Room F2

RPS 1816  Liver tumours: advanced imaging, radiomics and treatment effects
[RC 1816-1 – RPS 1816-15]

Moderators: Joao Amorim; Porto/PT
[RPS 1816-M]
Joachim Kettenbach; St. Pölten/AT
[RPS 1816-M]

RC 1816  Functional and molecular imaging techniques in oncology: how to use them in routine practice LEVEL III

» Chairperson’s introduction: What are the problems of morphologic evaluation [RC 1816-1]
Luis Marti-Bonmati; Valencia/ES

A. CT perfusion techniques [RC 1816-2]
Helmut Schöllnast; Graz/AT

B. Functional MRI techniques [RC 1816-3]
Vicky J. Goh; London/UK

C. Assessment by molecular imaging [RC 1816-4]
Jan Grimm; New York, NY/US

» Panel discussion: Where are we using functional evaluations in clinical practice? [RC 1816-5]
REFRESHER COURSES / RESEARCH PRESENTATION SESSIONS

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
(RPS 1017-1 – RPS 1017-10)
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
(RPS 1117-1 – RPS 1117-12)
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 manage-ment (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)
European Radiology

EXPERIMENTAL

Bringing the future of imaging to you!
The E³ - Rising Stars Programme: Student Sessions (S) provides an opportunity for students and radiographers in training to present their work on an international stage. Students will present their papers covering a variety of topics such as neuroimaging, musculoskeletal imaging, abdominal imaging, oncologic imaging, dose optimization and educational or social university projects.

Places are allocated on a first-come, first-served basis.
**E³ – RISING STARS PROGRAMME: STUDENT SESSIONS**

**Students will present their work**

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<td>My educational or social project at my university</td>
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<td><strong>Moderator:</strong> Christian Stroszczyński; Regensburg/DE</td>
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<td>(S 7-M)</td>
<td>A simplified method to estimate the energy spectrum for the megavoltage photon beams by monoenergetic depth dose library (S 7-1) Puspen Chakraborty; Tokyo/JP</td>
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<td>(S 7-2)</td>
<td>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 (S 7-2) Guorong Wang; Beijing/CN</td>
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<td>(S 7-3)</td>
<td>Missed lung cancers on radiographs and CT (S 7-3) Åse Lyslo; Bergen/NO</td>
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<td>(S 7-4)</td>
<td>Fully automated quantification of left ventricular volumes and function in cardiac MRI: an evaluation of a deep learning-based algorithm (S 7-4) Benjamin Böttcher; Rostock/DE</td>
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<td>(S 7-5)</td>
<td>Diagnostic accuracy of regadenoson perfusion cardiac magnetic resonance imaging in individuals with known or suspected coronary artery disease (S 7-5) Andoni Azcona; Zizur Mayor/ES</td>
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<td>(S 7-6)</td>
<td>Establishment of a student sonography course – from zero to over 1000 in 2.5 years (S 7-6) Lukas Müller; Mainz/DE</td>
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<td>Is gadolinium enhanced imaging necessary in the surveillance of non-operated cranial meningiomas? (S 7-7) Kathryn Twentyman; Leeds/UK</td>
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<td>(S 7-8)</td>
<td>3D printed models: the new revolutionary tool in medical education (S 7-8) Andrei Constantinescu; Voluntari/RO</td>
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<td><strong>S 8</strong></td>
<td>My scientific paper in the field of dose optimisation, abdominal imaging, Doppler ultrasound and musculoskeletal imaging</td>
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<td><strong>Moderator:</strong> Luca M. Sconfienza; Milan/IT (S 8-M)</td>
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<td>(S 8-1)</td>
<td>Coronary calcium scoring at 100 kV with tin filtration using a kV-independent reconstruction kernel (S 8-1) Rock Savage; Charleston, SC/US</td>
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<td>(S 8-2)</td>
<td>Evaluation of a tube voltage-tailored contrast media injection protocol for coronary CT angiography (S 8-2) Rock Savage; Charleston, SC/US</td>
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<td>(S 8-3)</td>
<td>Interventional cardiology: patient exposure to radiation and interoperator variability — a healthcare group investigation (S 8-3) Joseph Anderson; Ballonggan/IE</td>
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<td>(S 8-4)</td>
<td>Scattered radiation in mobile chest AP in ICU (S 8-4) Minja Antikainen; Oulu/FI</td>
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<td>(S 8-5)</td>
<td>Convolutional neural network-based volumetric segmentation of the liver compared with semiautomatic and manual methods (S 8-5) Bettina Budai; Budapest/HU</td>
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<td>(S 8-6)</td>
<td>Split-bolus and single-pass CT of the abdominal district (S 8-6) Alessia Missere; Naples/IT</td>
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<td>(S 8-7)</td>
<td>Vascular activity in rotator cuff tendinopathy: evaluation with conventional Doppler ultrasound and superb microvascular imaging (SMI) (S 8-7) Kai Qi Teng; Singapore/SG</td>
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<td>(S 8-8)</td>
<td>Body composition in elderly lung transplantation recipients assessed by pre-transplantation computed tomography scans predicts outcome after lung transplantation (S 8-8) Daria Kifjak; Vienna/AT</td>
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E³ – RISING STARS PROGRAMME: STUDENT SESSIONS

Students will present their work

**Friday, March 13, 14:00–15:30, Room X**

**S 11** My scientific paper in the field of neuroimaging

**Moderator:** Dragos Negru; Iasi/RO

- » 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-dependent 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 calibier 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

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

**S 16** My scientific paper in the field of oncologic imaging

**Moderator:** Panos K. Prassopoulos; Thessaloniki/GR

- » 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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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. 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 Corte\(^1\), L. Baglietto\(^1\), D. Caramella\(^1\), C. Iacconi\(^2\), S. **Atzori**\(^2\); \(^1\)Pisa/IT, \(^2\)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. Franconeri\(^1\), C. Bellini\(^2\), G. Bicchierai\(^2\), D. de Benedetto\(^2\), F. Di Naro\(^2\), J. Nori\(^2\), V. Miele\(^2\);
\(^1\)Pavia/IT, \(^2\)Florence/IT

» Breast arterial calcification on mammography does not predict coronary artery disease on invasive coronary angiography  [MyT3 2-7]
A. Fathalia; 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. Bellini\(^1\), A. Franconeri\(^1\), G. Bicchierai\(^1\), D. de Benedetto\(^1\), F. Di Naro\(^1\), J. Nori\(^1\), V. Miele\(^1\);
\(^1\)Florence/IT, \(^2\)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 Ortiz\(^1\), A. P. Ortiz Gomez\(^2\), K. Catein\(^2\);
\(^1\)Rio de Janeiro/BR, \(^2\)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. Atzori\(^1\), L. Baglietto\(^1\), M. Fornili\(^1\), D. della Latta\(^2\), D. Caramella\(^1\), C. Iacconi\(^3\);
\(^1\)Pisa/IT, \(^2\)Massa/IT, \(^3\)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 2-18]
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. Franconeri\(^1\), C. Bellini\(^2\), G. Bicchierai\(^2\), D. de Benedetto\(^2\), F. Di Naro\(^2\), J. Nori\(^2\), V. Miele\(^2\);
\(^1\)Pavia/IT, \(^2\)Florence/IT

» Breast arterial calcification on mammography does not predict coronary artery disease on invasive coronary angiography  [MyT3 2-7]
A. Fathalia; 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

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\(^1\)Florence/IT, \(^2\)Pavia/IT

W. Wang, J. Cheng; Zhengzhou/CN
MY THESIS IN 3 MINUTES

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. Öztürk¹, O. L. Boyunağa¹, A. Sigirci¹; ¹Ankara/TR, ²Akşaray/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. Riebsienkov, 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. Ozgüzl; 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. Shemyakov, O. Karpov, Y. Stoyko, O. Bronov, M. Yashkin, D. Lutarevich; 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. Rijnberg, A. Lammertink; Groningen/NL

Prediction of early haematoma expansion in cerebral haemorrhage based on non-contrast CT [MyT3 4-17]
L. Song¹, J. Wang¹; ¹Xiangyang/CN, ²Xiang/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. Wang¹; ¹Xiangyang/CN, ²Xiang/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. Modlińska¹, M. M. Cebula¹, J. Komenda¹, J. Baron¹; ¹Katowice/PL, ²Czeladź/PL

Non-contrast magnetic resonance angiography in renal artery assessment [MyT3 4-20]
S. Sethu Madhavan¹, V. Bhat², K. Ga²; ¹Kollam/Kollam, ²Bangalore/IN
» 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. Paladini, I. Percivalle, A. Carriero, M. Spinetta, G. Guzzardi, Z. Falaschi, M. Cernigliaro, S. Bor, D. Zagaria; Novara/IT, Santià/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. Yadav, S. Khanduri, P. Yadav; New Delhi/IN, Lucknow/IN

» The role of bone marrow lesions in acute joint injury [MyT3 5-5]
L. Selvarajah, A. Curtis, O. Kennedy; Limerick/IE, Dublin/IE

» T2-mapping evaluation of long-term cartilage alteration of humeral head for arthroscopic Bankart repair with or without remplissage [MyT3 5-6]
Y. Xie, S. Chen; Shanghai/CN

» Hand extensor compartments: how to study them and is it always their fault? [MyT3 5-7]
C. A. B. Oliveira, F. M. F. Gomes, F. Vieira, V. Mendes; 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

» Accuracy of volumetric trabecular bone mineral density assessment using dual-source dual-energy CT: a prospective phantom study and comparison with quantitative CT [MyT3 5-10]
C. Booz, I. Ye; N. Grosse Hokamp, J. Borggreve; Frankfurt am Main/DE, Cologne/DE

» 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. Guinebert, D. S. Palominos Pose, N. Stacoffe; 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]
MY THESIS IN 3 MINUTES

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

MyT3 8 Oncologic Imaging

Moderators: Ciaran J. Johnston; Dublin/IE  [MyT3 8-M] Olga V. Kucheruk; Moscow/RU [MyT3 8-M]

- 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. Elsakhawy, 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, X. Hu, Q. Gu, K. Zhang, P. Li, H. Shen; Changsha/CN
- 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. Sernev; 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. Weihsa; 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. Goyal; A. Mahajan, K. Prabhash; Mumbai/IN
- Application of the new anaesthesia protocol N.O.R.A. (non-operating room anaesthesia) for osteoid osteoma percutaneous treatment [MyT3 8-10]
  A. Paladini1, A. Borzelii1, F. Pane1, M. Spinetta1, D. Negroni1, A. Galbiati1, I. Percivale1, Z. Falaschi1, D. Zagaria1; Novara/IT, Naples/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. Grueneisen1, M. Chodyla1, B. M. Schaarschmidt1, O. Martin1, M. Forsting1, K. Herrmann1, L. Umutlu1, Essen/DE, Dusseldorf/DE
- Multi-parametric MRI approach for post-TACE HCC [MyT3 8-13]
  M. Elmansy; M. Elrakhawy, M. A. El-Aradany; 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 chemoradiation 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. Subbarana, 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, Pesaro/IT
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MY T3 9  Artificial Intelligence and Machine Learning

Moderators: Francesca Coppola; Bologna/IT  [MyT3 9-M]
Daniel Pinto dos Santos; Cologne/DE  [MyT3 9-M]

» 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. Kopp3, R. Heiß3, M. Uder3, 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. Hu4, X. Wang5; WuXi/CN, Zhenjiang/CN

» Ventriculoperitoneal shunt valve detection and identification using object detection with a faster RCNN  [MyT3 9-4]
J. Haubold1, A. Radbruch1, M. Forsting1, L. Umutlu1, F. Nensa1; Essen/DE, Heidelberg/DE

Z. Huang1, X. Wang1, J. Xiao1, Z. Li1, Y. Xie1, Y. Hu2; Wuhan/CN

» Impact of an artificial intelligence-based noise reduction algorithm on image quality in low-dose coronary CT angiography of obese patients  [MyT3 9-6]
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 9-7]
M. Kopp1, F. Geißler1, M. Wetzl1, M. Wiesmüller1, R. Heiss1, T. Allmendinger2, M. Uder3, 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/CT 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. Martin2, 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. Lindgren Belal1, O. Enqvist1, J. Ulén1, L. Edenbrandt1, E. Trägårdh1; Malmö/SE, Gothenburg/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. Martin2, J. Haubold2, M. Forsting1, F. Nensa1; Essen/DE, Düsseldorf/DE

» Clinical value of MRI texture analysis for differentiating solitary fibrous tumours/hemangiopericytoma from angiomatous meningioma 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, M. Podesta1, S. van Hoof1, K. Verhaegen1; 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 Toso1, A. E. Hansen1, N. J. Staut1, I. Rausch1; Vienna/AT, Amsterdam/NL, Orsay/FR, London/UK, Amsterdam/NL, Orsay/FR, London/UK

MY THESIS IN 3 MINUTES
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; 1Faro/PT, 2Parchal/PT

Ultrasound measures of abdominal aortic caliber and quadiceps femoris muscle thickness: influence of physical activity and body mass index  [MyT3 12-14]
H. S. Pontel1, L. P. V. Ribeiro1, S. Rodrigues1, A. F. Abrantes1, A. D. M. Ribeiro1, R. P. P. Almeida1, M. V. C. Reis1, T. C. P. L. Guerreiro1, 1Faro/PT, 2Parchal/PT, 3Portimão/PT, 4Santiago 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, S. Cuman3; 1Treviso/IT, 2Conegliano/IT, 3Varese/IT

The environment preventing female radiological technologists from improving their career prospects: filling the duration of their pregnancy and child-bearing  [MyT3 12-16]

Development of radiographer scheduling system considering skills and training: a case study  [MyT3 12-17]
K. Hidaka, T. Miyamoto; Suita/JP

A radiographers’ preceptorship: educational needs in the United Arab Emirates  [MyT3 12-18]
M. M. Abuzaid1, W. Elshami2, S. Hamid3, M. A. Musallam4, 'Sharjah/AE; ‘Waterford/IE

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
MY THERESIS IN 3 MINUTES

**Saturday, March 14, 08:30-10:00, Room Y**

**MyT3 13 Abdominal and Gastrointestinal**

**Moderators:** Martina Pezzullo; Brussels/BE  
Asunción Torregrosa Andrés; Valencia/ES

- 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; Istanbul/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; 
  1Delhi/IN, 2Gurgaon/IN, 3New 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. Buxi3, A. Jayant4; 
  1New Delhi/IN, 2Gurgaon/IN, 3Delhi/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. Soost; 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 shearwave 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; 1Mohali/IN, 2New 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. Gruneisen, J. M. Ludwig, Y. Li, L. Umutlu, M. Forsting, J. 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. Bizino1, E. H. M. Paiman1, J. W. A. Smit2; 
  1Leiden/NL, 2Nijmegen/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; 1Aydin/TR, 2Nicosia/CY

- Comparison of spin-echo echo-planar imaging (SE-EPI), MR elastography with gradient-recalled echo (GRE), MR elastography with correlation and 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/IT

- 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. Minvi; Guangzhou/CN

- The role of CT gastric volumetry in sleeve gastrectomy  
  M. S. T. M. Effesawry; A. F. Mohamed, E. Sokker; Cairo/EG

- CT gastroscopy: a convenient tool to evaluate gastric mass lesions  
  S. Siddharth1, P. Narang2, D. S. Srivastava3, P. Gupta4; 
  1New Delhi/IN, 2Delhi/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  
H. H. Shanbhag; Mumbai/IN

» Predictors of infectious complications following transrectal ultrasound-guided prostate biopsies in an Irish prostate cancer centre  
R. Durganaukey, M. M. Morrin, R. Dunne; Dublin/IE

» Retrospective study of endovascular therapy for renal bleedings of arterial origin  
A. Fialkovska1, B. Goldny2, J. Petersen3; 1Heidelberg/DE, 2Hirschberg/DE

» Multivessel Doppler in the evaluation of IUGR  
P. Pobbiati; Hyderabad/IN

» Magnetic resonance imaging and three-dimensional transperineal ultrasound evaluation of pelvic floor dysfunction in symptomatic women: a prospective comparative study  
E. F. A. M. Tantawy, M. A. A. Basha, R. Almolla, H. Almassry; Zagazig/EG

» Comparison of multiparametric prostate MRI and PSMA gallium PET-CT efficiency: the intraductal component and cribriform pattern in intraprostatic tumour focus  
F. Arslan, M. B. Tuna, L. Güner, Y. Sağlıcan, A. R. Kural, E. Karaarslan; Istanbul/TR

» Comparison of ADC-ratio vs mean ADC value of multiparametric MRI to predict the aggressiveness of prostate cancer  
W. Wang1, V. Schütz1, M. Görtz1, D. Tichy1, P. D. A. Stenzinger1, M. Hohenfellner1, H.-P. Schlemmer1, X. Wang1, V. Schütz1, M. Görtz1, D. Tichy1, E. Karaarslan; Istanbul/TR

» Radio-frequency ablation of renal cancer T1a with externally cooled multitipped expandable electrodes  
F. Pagnini, U. V. Maestrini, S. Ferretti, S. Buti, M. de Filippo; Parma/IT

» Role of MRI to evaluate kidney volume in AKPD patients  
G. Di Nino, E. Grassedonio, M. Guarneri, L. La Grutta, G. Salvaggio, F. Midiri, M. Galia, T. V. Bartolotta, M. Midiri; Palermo/IT

» Texture analysis of MRI for differential diagnosis of renal masses  
M. Ersen1, H. T. Sanal1, M. Tasar1, A. Keskin2, M. S. Günes2; 1Ankara/AT, 2Istanbul/TR

» 68Ga-PSMA PET/CT in biochemically recurrent prostate cancer: when do we miss it and why?  
I. Zelisky; Yekaterinburg/RU

» Multiple mathematical models of diffusion-weighted imaging for evaluation of prognostic features in endometrial cancer  
O. Zhang, X. Zhao, H. Ouyang; Beijing/CN

» High b-values in DWI for prostate cancer detection: what to acquire and what to compute?  
M. Schoeniger1, H. Seuss1, F. Laun1, J. Martin1, T. Kuder2, R. Janka1, A. Cavallaro1, M. Uder1, M. Hammon1; Erlangen/DE, Heidelberg/DE

» Multiparametric magnetic resonance imaging (mp-MRI) in the evaluation of prostate cancer based on PI-RADS V2 on 1.5 T without endorectal coil  
S. M. Ingole, R. U. Mehta, Z. Kazi; Mumbai/IN

» Detection of peritoneal metastases from ovarian cancer: a comparison between 3T MRI and surgical findings  

» Computed tomography of pelvic varicocele in adolescents with urological pathology  
U. Polvakova, I. Melnikov, M. Ublinskiy; Moscow/RU

» Preoperative radiographic predictors of major vascular reconstructions in patients with testicular cancer undergoing postchemotherapy residual tumour resection (PC-RPLND)  
» 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

» 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

» 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. Vaccher, 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; Limerick/IE, "Dublin/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  

» Optimised short breath-holding time protocol for subtraction coronary CT angiography  
N. Xu, X. Jing, X. Meng; Shanghai/CN

» Very low volume of contrast material in pre-TAVI CT: how low can we get?  
P. Oliga, A. Wolak, 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. Dobni, 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; Moscow/RU, St. 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

» Aortic valve calcification scoring with computed tomography: the impact of advanced modelled iterative image reconstruction  
R. M. M. Hinzpeter, F. Maisano, A. M. Kasel, F. Tanner, H. Alkadhi, M. Eberhard; Zurich/CH

» 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  
L. Zhang, Y. Guo, H. Xu, M. Yang, R. Xu, Z. Yang, C. Fu; Chengdu/CN

» Evaluation of image quality and radiation dose with prospective ECG-gated 80-slice CT angiography, in 182 consecutive children examinations with congenital heart disease  
P. de Cambourg, P. Guérin, H. Necib, K. Warin Fresse; Nantes/FR

» Myocardial extracellular volume assessment in a cohort of oesophagal cancer patients using routine contrast-enhanced CT  
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. Arora, 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, Z. Zeng, J. Zhang; Shanghai/CN

Ultra-high frequency ultrasound (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. Chojniak3, 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 shear diameter measured by ultrasonography in patients admitted to an emergency department  
[MyT3 17-6]  
I. Kanbur1, H. Topacoglu2; "İstanbul/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. Ravikumar3; "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. Perrucci1, M. Stantieru, 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. Neeliviyath Thazha Kun1, A. Sood2, R. Krai; S. K. Bhadada1, B. R. Mittal2, A. Behra4, U. N. Saikia4, D. S. Rao6; "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]  
T. Taha, M. M. Ashour, H. A. K. Abdel Hameed, M. Abdel Hafeez, A. S. Abdelrahman; Cairo/EG

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. Hu1, X. Wang2; "Wuxi/CN, "Zhejiang/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, M. Both1, O. Jansen1, M. Salehi Ravesh2; "Kiel/DE, "Evanston, IL/US, "Hamburg/DE
» Role of diffusion tensor imaging as a biomarker for cases with a history of optic neurtis 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. Tarnoki1, T. Horváth1, E. Medda2, C. Baracchin1, A. Sas3, C. Oláh4, L. Kostyal4, 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; 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 uniconcentre study  [MyT3 18-9]
C. Deuschl; M. Darkwah Oppong1, K. Wrede1, A. Radbruch1, M. Forsting1, I. Wanke1, C. Mönninghoff1; 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. Merc; 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. Shivam 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, P. Bessou2; 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. Sinar1, J.-F. Chateil1, M. Havez1, A. Crombe2, P. Bessou2; 1Saint-Maur-des-Fossés/FR, 2Bordeaux/FR

» 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.
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. Dahlbiom; A. Tingberg, K. Lang, I. Andersson, S. Zackrisson, M. Duster; 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]
L. Hadid-Beurrier; M. Demonchy, J. Le Roy, B. Royer, D. Dablé; Paris/FR, Frejus/FR, Montpellier/FR, Maxéville/FR, Angers/FR

» 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. Vonder, Q. Li, G. Sidorenkov, Z. Ye, X. Xie, W. Wang, M. Oudkerk, S. Liu; Groningen/NL, Tianjin/CN

» Discussant  [CTIR 3-12]
Mariana 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 SPUtNIk 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. Skaaga; S. B. Brandal, S. Y. Yanakiev, E. E. Eben, T. Lie, R. Gullien; 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]

» 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 Graaf, B. Roozenbeek, V. Chalos, A. C. G. M. van Es, H. Lingsma, D. W. J. Dippel, A. van der Lugt, M. Clean Med Investigators; Rotterdam/NL, Na/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. Iotti, P. Giorgi Rossi, A. Nitrosi, V. Helin, E. Gauthier, C. Campani, V. Marchesi, R. Vacondi, P. Pattacini; Reggio Emilia/IT, Villejuif/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]

» Discussant  [CTIR 11-6]
N.N.

» Pivotal study of MRI-guided transurethral ultrasound ablation (TULSA) in men with localised prostate cancer  [CTIR 11-7]

» 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. Bakker, S. V. de Lange, R. M. Pijnappel, W. B. Veldhuis, C. van Gils, Q. 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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<tr>
<td><strong>Stage 1 - EPOS Lounge</strong></td>
<td><strong>Stage 1 - EPOS Lounge</strong></td>
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<tr>
<td><strong>Wednesday, March 11, 09:00–10:00</strong></td>
<td><strong>Thursday, March 12, 09:00–10:00</strong></td>
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<tr>
<td>VoE 001 Genitourinary - Prostate</td>
<td>VoE 009 Breast</td>
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</tr>
<tr>
<td><strong>Moderator:</strong> Josephine McHugo; Birmingham/UK</td>
<td><strong>Moderator:</strong> Eduardo Fleury; Sao Paulo/BR</td>
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<td><strong>Wednesday, March 11, 10:00–11:00</strong></td>
<td><strong>Thursday, March 12, 11:00–12:00</strong></td>
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<tr>
<td>VoE 002 Latin America (Portuguese)</td>
<td>VoE 010 Polish</td>
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<tr>
<td><strong>Moderator:</strong> Ricardo Luiz Delfim; Rio de Janeiro/BR</td>
<td><strong>Moderator:</strong> Tadeusz Popiela; Krakow/PL</td>
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<tr>
<td><strong>Wednesday, March 11, 11:00–12:00</strong></td>
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<tr>
<td>VoE 003 Breast</td>
<td>VoE 011 Interventional Radiology</td>
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<td><strong>Moderator:</strong> Gabriela Martins; Rio de Janeiro/BR</td>
<td><strong>Moderator:</strong> Tadeusz Popiela; Krakow/PL</td>
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<tr>
<td><strong>Wednesday, March 11, 12:00–13:00</strong></td>
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<tr>
<td>VoE 004 Korean</td>
<td>VoE 012 Breast</td>
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<tr>
<td><strong>Moderator:</strong> Jin Mo Goo; Seoul/KR</td>
<td><strong>Moderator:</strong> Rebecca Gaskarth; Cambridge/UK</td>
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<tr>
<td><strong>Wednesday, March 11, 13:00–14:00</strong></td>
<td><strong>Thursday, March 12, 14:00–15:00</strong></td>
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<tr>
<td>VoE 005 EuroSafe Imaging - Paediatric imaging safety around the world</td>
<td>VoE 013 EuroSafe Imaging - Dose management and appropriateness of imaging</td>
<td></td>
</tr>
<tr>
<td><strong>Moderators:</strong> Kimberly Applegate; Zionsville/US Claudio Granata; Genova/IT</td>
<td><strong>Moderator:</strong> Sebastian Schindera; Riehen/CH</td>
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<tr>
<td><strong>Wednesday, March 11, 14:00–15:00</strong></td>
<td><strong>Thursday, March 12, 15:00–16:00</strong></td>
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<tr>
<td>VoE 006 Spain</td>
<td>VoE 014 Korean</td>
<td></td>
</tr>
<tr>
<td><strong>Moderator:</strong> Alejandro Rovira-Cañellas; Barcelona/ES</td>
<td><strong>Moderator:</strong> Jin Mo Goo; Seoul/KR</td>
<td></td>
</tr>
<tr>
<td><strong>Wednesday, March 11, 15:00–16:00</strong></td>
<td><strong>Thursday, March 12, 16:00–17:00</strong></td>
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<tr>
<td>VoE 007 GI Tract</td>
<td>VoE 015 Hybrid, Molecular and Translational Imaging</td>
<td></td>
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<tr>
<td><strong>Moderator:</strong> Michael Torkzad; Godalming/UK</td>
<td><strong>Moderator:</strong> Jiří Ferda; Pízen/CZ</td>
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</tr>
<tr>
<td><strong>Wednesday, March 11, 16:00–17:00</strong></td>
<td><strong>Thursday, March 12, 17:00–18:00</strong></td>
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<tr>
<td>VoE 008 Russian</td>
<td>VoE 016 Spain</td>
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</tr>
<tr>
<td><strong>Moderator:</strong> Elena Mershina; Moscow/RU</td>
<td><strong>Moderator:</strong> Alejandro Rovira-Cañellas; Barcelona/ES</td>
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</tr>
</tbody>
</table>
**THE VOICE OF EPOS**

**Stage 1 - EPOS Lounge**

**Friday, March 13, 09:00–10:00**
VoE 017 Cardiac
*Moderator:* Karl-Friedrich Kreitner; Mainz/DE

**Friday, March 13, 11:00–12:00**
VoE 018 Arabic (Egypt)
*Moderator:* Tarek El-Diasty; Mansoura/EG

**Friday, March 13, 12:00–13:00**
VoE 019 Breast
*Moderator:* Panagiotis Kapetas; Vienna/AT

**Friday, March 13, 13:00–14:00**
VoE 020 Oncologic Imaging - Prostate and bladder cancer
*Moderator:* Igor Shrainer; Moscow/RU

**Friday, March 13, 14:00–15:00**
VoE 021 EuroSafe Imaging - Paediatric imaging optimisation
*Moderators:* Raija Seuri; Helsinki/FI
Hubert Ducou Le Pointe; Paris/FR

**Friday, March 13, 15:00–16:00**
VoE 022 Latin America (Spanish)
*Moderator:* Pedro Tapia Puente Arnao; Lima/PE

**Friday, March 13, 16:00–17:00**
VoE 023 Genitourinary - Imaging of scrotal and penile diseases
*Moderator:* Athina Tsili; Ioannina/GR

**Friday, March 13, 17:00–18:00**
VoE 024 Chinese
*Moderator:* Zheng Yu Jin; Beijing/CN

**Saturday, March 14, 09:00–10:00**
VoE 025 Vascular
*Moderator:* Karl Schürmann; Aachen/DE

**Saturday, March 14, 11:00–12:00**
VoE 026 Portuguese
*Moderator:* Belarmino Gonçalves; Porto/PT

**Saturday, March 14, 12:00–13:00**
VoE 027 Genitourinary - Renal imaging
*Moderator:* Rebecca Gaskarth; Cambridge/UK

**Saturday, March 14, 13:00–14:00**
VoE 028 Abdominal Viscera - Liver imaging
*Moderator:* Maria Ambrosetti; Verona/IT

**Saturday, March 14, 14:00–15:00**
VoE 029 Vascular
*Moderator:* Anna Maria Ierardi; Milano/IT

**Saturday, March 14, 15:00–16:00**
VoE 030 Latin America (Spanish)
*Moderator:* Federico Lubinus; Bucaramanga/CO

**Saturday, March 14, 16:00–17:00**
VoE 031 Oncologic Imaging - Upper and lower GI tract
*Moderator:* Stefan Delorme; Heidelberg/DE

**Saturday, March 14, 17:00–18:00**
VoE 032 Neuro - Oncology
*Moderator:* Hemant Patel; Ahmedabad/IN

**Sunday, March 15, 09:00–10:00**
VoE 033 Breast
*Moderator:* Panagiotis Kapetas; Vienna/AT

**Sunday, March 15, 10:00–11:00**
VoE 034 Oncologic Imaging - Liver, gallbladder and pancreas
*Moderator:* Peter Brader; Graz/AT

**Sunday, March 15, 11:00–12:00**
VoE 035 Head and Neck
*Moderator:* Muhammad Hamid Akram; Rawalpindi/PK
### THE VOICE OF EPOS

**Stage 2 - EPOS Lounge**

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<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>VoE</th>
<th>Topic</th>
<th>Moderator</th>
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<tbody>
<tr>
<td>11th March</td>
<td>Wednesday, March 11, 09:00–10:00</td>
<td>VoE 036</td>
<td>Spain</td>
<td>Nuria Bargalló Alabart; Barcelona/ES</td>
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<tr>
<td>11th March</td>
<td>Wednesday, March 11, 10:00–11:00</td>
<td>VoE 037</td>
<td>German</td>
<td>Peter Brader; Graz/AT</td>
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<tr>
<td>11th March</td>
<td>Wednesday, March 11, 11:00–12:00</td>
<td>VoE 038</td>
<td>Head and Neck</td>
<td>Miguel Palm; Maastricht/NL</td>
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<tr>
<td>11th March</td>
<td>Wednesday, March 11, 12:00–13:00</td>
<td>VoE 039</td>
<td>Spain</td>
<td>Alejandro Rovira-Cañellas; Barcelona/ES</td>
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<td>11th March</td>
<td>Wednesday, March 11, 13:00–14:00</td>
<td>VoE 040</td>
<td>Cardiac</td>
<td>Luca Saba; Cagliari/IT</td>
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<td>11th March</td>
<td>Wednesday, March 11, 14:00–15:00</td>
<td>VoE 041</td>
<td>Portugal</td>
<td>Teresa Nunes; Lisboa/PT</td>
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<tr>
<td>11th March</td>
<td>Wednesday, March 11, 15:00–16:00</td>
<td>VoE 042</td>
<td>Vascular</td>
<td>Zheng Yu Jin; Beijing/CN</td>
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<tr>
<td>11th March</td>
<td>Wednesday, March 11, 16:00–17:00</td>
<td>VoE 043</td>
<td>Imaging Informatics</td>
<td>Dag Wormanns; Berlin/DE</td>
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<tr>
<td>12th March</td>
<td>Thursday, March 12, 09:00–10:00</td>
<td>VoE 044</td>
<td>French</td>
<td>Stéphanie Franchi-Abella; Le Kremlin-Bicêtre/FR</td>
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<tr>
<td>12th March</td>
<td>Thursday, March 12, 11:00–12:00</td>
<td>VoE 045</td>
<td>Latin America (Spanish)</td>
<td>Miguel Angel Pinochet; Santiago/CL</td>
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<tr>
<td>12th March</td>
<td>Thursday, March 12, 12:00–13:00</td>
<td>VoE 046</td>
<td>Imaging Informatics</td>
<td>Dag Wormanns; Berlin/DE</td>
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<tr>
<td>12th March</td>
<td>Thursday, March 12, 13:00–14:00</td>
<td>VoE 047</td>
<td>Latin America (Portuguese)</td>
<td>Eduardo Fleury; Sao Paulo/BR</td>
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<tr>
<td>12th March</td>
<td>Thursday, March 12, 14:00–15:00</td>
<td>VoE 048</td>
<td>Head and Neck</td>
<td>Miguel Palm; Maastricht/NL</td>
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<tr>
<td>12th March</td>
<td>Thursday, March 12, 15:00–16:00</td>
<td>VoE 049</td>
<td>Japanese</td>
<td>Takatoshi Aoki; Kitakyushu/JP</td>
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<td>12th March</td>
<td>Thursday, March 12, 16:00–17:00</td>
<td>VoE 050</td>
<td>Physics in Medical Imaging</td>
<td>Johannes Thomas Heverhagen; Bern/CH</td>
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<tr>
<td>12th March</td>
<td>Thursday, March 12, 17:00–18:00</td>
<td>VoE 051</td>
<td>Interventional Radiology</td>
<td>Irene Bargellini; Pisa/IT</td>
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<tr>
<td>Date</td>
<td>Time</td>
<td>Session</td>
<td>Country</td>
<td>Moderator</td>
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<tr>
<td>13 Mar</td>
<td>09:00–10:00</td>
<td>VoE 052 India</td>
<td>India</td>
<td>Bhupendra Ahuja; Agra/IN</td>
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<td>13 Mar</td>
<td>11:00–12:00</td>
<td>VoE 053 Latin America (Portuguese)</td>
<td>Brazil</td>
<td>Valdair Francisco Muglia; Ribeirao Preto/BR</td>
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<tr>
<td>13 Mar</td>
<td>12:00–13:00</td>
<td>VoE 054 Italian</td>
<td>Italy</td>
<td>Giulia Zamboni; Verona/IT</td>
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<tr>
<td>13 Mar</td>
<td>13:00–14:00</td>
<td>VoE 055 Spain</td>
<td>Spain</td>
<td>Eva Llopis San Juan; Alzira-Valencia/ES</td>
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<tr>
<td>13 Mar</td>
<td>14:00–15:00</td>
<td>VoE 056 Interventional Radiology</td>
<td>Italy</td>
<td>Anna Maria Ierardi; Milano/IT</td>
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<tr>
<td>13 Mar</td>
<td>15:00–16:00</td>
<td>VoE 057 Portugal</td>
<td>Portugal</td>
<td>Belarmino Gonçalves; Porto/PT</td>
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<tr>
<td>13 Mar</td>
<td>16:00–17:00</td>
<td>VoE 058 Interventional Radiology</td>
<td>Italy</td>
<td>Andreas Mahnken; Marburg/DE</td>
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<tr>
<td>13 Mar</td>
<td>17:00–18:00</td>
<td>VoE 059 Breast</td>
<td>Egypt</td>
<td>Dina Husseiny Salama; Cairo/EG</td>
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<tr>
<td>14 Mar</td>
<td>09:00–10:00</td>
<td>VoE 060 Cardiac</td>
<td>Algeria</td>
<td>Boudjema Mansouri; Algiers/DZ</td>
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<td>14 Mar</td>
<td>11:00–12:00</td>
<td>VoE 061 Latin America (Portuguese)</td>
<td>Brazil</td>
<td>Valdair Francisco Muglia; Ribeirao Preto/BR</td>
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<tr>
<td>14 Mar</td>
<td>12:00–13:00</td>
<td>VoE 062 EuroSafe Imaging - Procedures, policies and research</td>
<td>Portugal</td>
<td>Virginia Tsapaki; Helsinki/FI</td>
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<td>Dina Husseiny Salama; Cairo/EG</td>
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<tr>
<td>14 Mar</td>
<td>13:00–14:00</td>
<td>VoE 063 Korean</td>
<td>Korea</td>
<td>Hye Jung Choo; Busan/KR</td>
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<tr>
<td>14 Mar</td>
<td>14:00–15:00</td>
<td>VoE 064 Interventional Radiology</td>
<td>Germany</td>
<td>Karl Schürmann; Aachen/DE</td>
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<tr>
<td>14 Mar</td>
<td>15:00–16:00</td>
<td>VoE 065 Turkish</td>
<td>Turkey</td>
<td>Emel Ada; Izmir/TR</td>
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<tr>
<td>14 Mar</td>
<td>16:00–17:00</td>
<td>VoE 066 Chest</td>
<td>Austria</td>
<td>Michael Toepker; Vienna/AT</td>
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<tr>
<td>14 Mar</td>
<td>17:00–18:00</td>
<td>VoE 067 Italian</td>
<td>Italy</td>
<td>Luca Saba; Cagliari/IT</td>
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<tr>
<td>15 Mar</td>
<td>09:00–10:00</td>
<td>VoE 068 Interventional Radiology</td>
<td>Italy</td>
<td>Andreas Mahnken; Marburg/DE</td>
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<td>15 Mar</td>
<td>10:00–11:00</td>
<td>VoE 069 Cardiac</td>
<td>Germany</td>
<td>Karl-Friedrich Kreitner; Mainz/DE</td>
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<tr>
<td>15 Mar</td>
<td>11:00–12:00</td>
<td>VoE 070 Vascular</td>
<td>Greece</td>
<td>Savas Deftereos; Alexandroupolis/GR</td>
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## THE VOICE OF EPOS

### Stage 3 - EPOS Lounge

**11 March**  
**Wednesday, March 11, 09:00–10:00**  
**VoE 071**  
**Turkish**  
**Moderator:** Cem Calli; Izmir/TR

**11 March**  
**Wednesday, March 11, 10:00–11:00**  
**VoE 072**  
**Italian**  
**Moderator:** Antonio Barile; L’Aquila/IT

**11 March**  
**Wednesday, March 11, 11:00–12:00**  
**VoE 073**  
**Emergency Imaging**  
**Moderator:** Alexandra Platon; Geneva/CH

**11 March**  
**Wednesday, March 11, 12:00–13:00**  
**VoE 074**  
**Neuro - Demyelinating diseases**  
**Moderator:** Georgios Kapsas; Thessaloniki/GR

**11 March**  
**Wednesday, March 11, 13:00–14:00**  
**VoE 075**  
**Genitourinary**  
**Moderator:** Tarek El-Diasty; Mansoura/EG

**11 March**  
**Wednesday, March 11, 14:00–15:00**  
**VoE 076**  
**Paediatric**  
**Moderator:** Gerald Pärtan; Vienna/AT

**11 March**  
**Wednesday, March 11, 15:00–16:00**  
**VoE 077**  
**Artificial Intelligence and Machine Learning**  
**Moderator:** Peter Mildenberger; Mainz/DE

**11 March**  
**Wednesday, March 11, 16:00–17:00**  
**VoE 078**  
**Musculoskeletal - Ankle and foot**  
**Moderator:** Antonio Barile; L’Aquila/IT

**12 March**  
**Thursday, March 12, 09:00–10:00**  
**VoE 079**  
**Portugal**  
**Moderator:** Teresa Nunes; Lisboa/PT

**12 March**  
**Thursday, March 12, 11:00–12:00**  
**VoE 080**  
**Spain**  
**Moderator:** Eva Llopis San Juan; Alzira-Valencia/ES

**12 March**  
**Thursday, March 12, 12:00–13:00**  
**VoE 081**  
**Paediatric**  
**Moderator:** Gerald Pärtan; Vienna/AT

**12 March**  
**Thursday, March 12, 13:00–14:00**  
**VoE 082**  
**Artificial Intelligence and Machine Learning**  
**Moderator:** Hatem Alkadhi; Zurich/CH

**12 March**  
**Thursday, March 12, 14:00–15:00**  
**VoE 083**  
**Musculoskeletal - Pelvis and hip**  
**Moderator:** Christoph Schäffeler; Chur/CH

**12 March**  
**Thursday, March 12, 15:00–16:00**  
**VoE 084**  
**Chest**  
**Moderator:** Grzegorz Staskiewicz; Lublin/PL

**12 March**  
**Thursday, March 12, 16:00–17:00**  
**VoE 085**  
**Emergency Imaging**  
**Moderator:** Sara Upponi; Cambridge/UK

**12 March**  
**Thursday, March 12, 17:00–18:00**  
**VoE 086**  
**Neuro - Spine and spinal cord**  
**Moderator:** Asif Mazumder; London/UK
13 March
**Friday, March 13, 09:00–10:00**
VoE 087  Russian
**Moderator:** Elena Mershina; Moscow/RU

13 March
**Friday, March 13, 11:00–12:00**
VoE 088  Japanese
**Moderator:** Yumiko Tanaka; Tokyo/JP

13 March
**Friday, March 13, 12:00–13:00**
VoE 089  Emergency Imaging
**Moderator:** Lukas Ebner; Bern/CH

13 March
**Friday, March 13, 13:00–14:00**
VoE 090  Neuro - Infections
**Moderator:** Asif Mazumder; London/UK

13 March
**Friday, March 13, 14:00–15:00**
VoE 091  Artificial Intelligence and Machine Learning
**Moderator:** Peter Mildenberger; Mainz/DE

13 March
**Friday, March 13, 15:00–16:00**
VoE 092  Abdominal Viscera - Pancreas and bile ducts
**Moderator:** Jonn-Terje Geitung; Norbyhagen/NO

13 March
**Friday, March 13, 16:00–17:00**
VoE 093  Paediatric
**Moderator:** Stéphanie Franchi-Abella; Le Kremlin-Bicêtre/FR

13 March
**Friday, March 13, 17:00–18:00**
VoE 094  Oncologic Imaging - Therapy-related findings and prognosis
**Moderator:** Anastasia Zikou; Ioannina/GR

14 March
**Saturday, March 14, 09:00–10:00**
VoE 095  Abdominal Viscera - Infectious diseases
**Moderator:** Federico Lubinus; Bucaramanga/CO

14 March
**Saturday, March 14, 11:00–12:00**
VoE 096  Spain
**Moderator:** Nuria Bargalló Alabart; Barcelona/ES

14 March
**Saturday, March 14, 12:00–13:00**
VoE 097  Neuro - Stroke
**Moderator:** Hemant Patel; Ahmedabad/IN

14 March
**Saturday, March 14, 13:00–14:00**
VoE 098  Artificial Intelligence and Machine Learning
**Moderator:** Hatem Alkadhi; Zurich/CH

14 March
**Saturday, March 14, 14:00–15:00**
VoE 099  Musculoskeletal - Tumours
**Moderator:** Keivan Daneshvar Ghorbani; Bern/CH

14 March
**Saturday, March 14, 15:00–16:00**
VoE 100  Emergency Imaging
**Moderator:** Lukas Ebner; Bern/CH

14 March
**Saturday, March 14, 16:00–17:00**
VoE 101  Paediatric
**Moderator:** Savas Deftereos; Alexandroupolis/GR

14 March
**Saturday, March 14, 17:00–18:00**
VoE 102  Romanian
**Moderator:** Ioana Gabriela Lupescu; Bucharest/RO

15 March
**Sunday, March 15, 09:00–10:00**
VoE 103  Chest
**Moderator:** Grzegorz Staskiewicz; Lublin/PL

15 March
**Sunday, March 15, 10:00–11:00**
VoE 104  Genitourinary - Female imaging I
**Moderator:** Athina Tsili; Ioannina/GR

15 March
**Sunday, March 15, 11:00–12:00**
VoE 105  Musculoskeletal - Metabolic and systemic diseases
**Moderator:** Keivan Daneshvar Ghorbani; Bern/CH
THE VOICE OF EPOS
Stage 4 - EPOS Lounge

11 March
Wednesday, March 11, 09:00–10:00
VoE 106  Professional Issues
Moderator: Jonn-Terje Geitung; Norbyhagen/NO

11 March
Wednesday, March 11, 10:00–11:00
VoE 107  Japanese
Moderator: Takatoshi Aoki; Kitakyushu/JP

11 March
Wednesday, March 11, 11:00–12:00
VoE 108  Neuro - Haemorrhage
Moderator: Cem Calli; Izmir/TR

11 March
Wednesday, March 11, 12:00–13:00
VoE 109  Italian
Moderator: Irene Bargellini; Pisa/IT

11 March
Wednesday, March 11, 13:00–14:00
VoE 110  Abdominal Viscera - Emergency radiology
Moderator: Johannes Thomas Heverhagen; Bern/CH

11 March
Wednesday, March 11, 14:00–15:00
VoE 111  Latin America (Spanish)
Moderator: Pedro Tapia Puente Arnao; Lima/PE

11 March
Wednesday, March 11, 15:00–16:00
VoE 112  Musculoskeletal - Upper extremities
Moderator: Christoph Schäffeler; Chur/CH

11 March
Wednesday, March 11, 16:00–17:00
VoE 113  Oncologic Imaging - Myeloma, lymphoma and leukaemia
Moderator: Igor Shrainer; Moscow/RU

12 March
Thursday, March 12, 09:00–10:00
VoE 114  Musculoskeletal - Spine
Moderator: José Luis del Cura Rodriguez; Bilbao/ES

12 March
Thursday, March 12, 11:00–12:00
VoE 115  Arabic (Middle East)
Moderator: Dina Husseiny Salama; Cairo/EG

12 March
Thursday, March 12, 12:00–13:00
VoE 116  Neuro - Imaging signs
Moderator: Danisia Haba; Iasi/RO

12 March
Thursday, March 12, 13:00–14:00
VoE 117  Greek
Moderator: Georgios Kapsas; Thessaloniki/GR

12 March
Thursday, March 12, 14:00–15:00
VoE 118  Abdominal Viscera - Liver ultrasound and elastography
Moderator: Emilio Quaia; Padova/IT

12 March
Thursday, March 12, 15:00–16:00
VoE 119  Italian
Moderator: Maria Ambrosetti; Verona/IT

12 March
Thursday, March 12, 16:00–17:00
VoE 120  Genitourinary - Female imaging II
Moderator: Josephine McHugo; Birmingham/UK

12 March
Thursday, March 12, 17:00–18:00
VoE 121  GI Tract
Moderator: Michael Torkzad; Godalming/UK
<table>
<thead>
<tr>
<th>Date</th>
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<th>Location</th>
<th>Topic</th>
<th>Moderator</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 Mar</td>
<td>Fri 09:00–10:00</td>
<td></td>
<td>Neuro - Dementia and psychiatric disorders</td>
<td>Emel Ada; Izmir/TR</td>
</tr>
<tr>
<td>13 Mar</td>
<td>Fri 11:00–12:00</td>
<td></td>
<td>Latin America (Spanish)</td>
<td>Miguel Angel Pinochet; Santiago/CL</td>
</tr>
<tr>
<td>13 Mar</td>
<td>Fri 12:00–13:00</td>
<td></td>
<td>Chest</td>
<td>Anastasia Oikonomou; Toronto/CA</td>
</tr>
<tr>
<td>13 Mar</td>
<td>Fri 13:00–14:00</td>
<td></td>
<td>Italian</td>
<td>Emilio Quaia; Padova/IT</td>
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<tr>
<td>13 Mar</td>
<td>Fri 14:00–15:00</td>
<td></td>
<td>GI Tract</td>
<td>Anastasia Glantzouni; Ioannina/GR</td>
</tr>
<tr>
<td>13 Mar</td>
<td>Fri 15:00–16:00</td>
<td></td>
<td>Korean</td>
<td>Sarah Kyongmin Beck; Seoul/KR</td>
</tr>
<tr>
<td>13 Mar</td>
<td>Fri 16:00–17:00</td>
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<td>Musculoskeletal - Interventional radiology and miscellaneous</td>
<td>José Luis del Cura Rodriguez; Bilbao/ES</td>
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<tr>
<td>13 Mar</td>
<td>Fri 17:00–18:00</td>
<td></td>
<td>Hybrid, Molecular and Translational Imaging</td>
<td>Michel Eisenblätter; Münster/DE</td>
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<tr>
<td>14 Mar</td>
<td>Sat 09:00–10:00</td>
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<td>Paediatric</td>
<td>Bhupendra Ahuja; Agra/IN</td>
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<tr>
<td>14 Mar</td>
<td>Sat 11:00–12:00</td>
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<td>Arabic (North Africa)</td>
<td>Boudjema Mansouri; Algiers/DZ</td>
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<td>14 Mar</td>
<td>Sat 12:00–13:00</td>
<td></td>
<td>Chest</td>
<td>Michael Toepker; Vienna/AT</td>
</tr>
<tr>
<td>14 Mar</td>
<td>Sat 13:00–14:00</td>
<td></td>
<td>Japanese</td>
<td>Yumiko Tanaka; Tokyo/JP</td>
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<tr>
<td>14 Mar</td>
<td>Sat 14:00–15:00</td>
<td></td>
<td>Neuro - Arterial, arteriovenous and venous imaging</td>
<td>Anastasia Zikou; Ioannina/GR</td>
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<tr>
<td>14 Mar</td>
<td>Sat 15:00–16:00</td>
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<td>Latin America (Portuguese)</td>
<td>Gabriela Martins; Rio de Janeiro/BR</td>
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<tr>
<td>14 Mar</td>
<td>Sat 16:00–17:00</td>
<td></td>
<td>Head and Neck</td>
<td>Marc Lemmerling; Beervelde/BE</td>
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<tr>
<td>14 Mar</td>
<td>Sat 17:00–18:00</td>
<td></td>
<td>Musculoskeletal - Knee and miscellaneous</td>
<td>Keivan Daneshvar Ghorbani; Bern/CH</td>
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<tr>
<td>15 Mar</td>
<td>Sun 09:00–10:00</td>
<td></td>
<td>Head and Neck</td>
<td>Danisia Haba; Iasi/RO</td>
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<tr>
<td>15 Mar</td>
<td>Sun 10:00–11:00</td>
<td></td>
<td>Abdominal Viscera - MRI</td>
<td>Anastasia Glantzouni; Ioannina/GR</td>
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<tr>
<td>15 Mar</td>
<td>Sun 11:00–12:00</td>
<td></td>
<td>Oncologic Imaging - Usual and unusual findings</td>
<td>Peter Brader; Graz/AT</td>
</tr>
</tbody>
</table>
### THE VOICE OF EPOS - RADIOGRAPHERS

#### Stage 5 - EPOS Lounge

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<th>Time</th>
<th>Event</th>
<th>Moderator(s)</th>
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<tbody>
<tr>
<td>March 11</td>
<td>Wednesday, March 11, 09:00–10:00</td>
<td>VoE 141  CT</td>
<td>Luis Ribeiro; Parchal/PT</td>
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<tr>
<td>March 11</td>
<td>Wednesday, March 11, 10:00–11:00</td>
<td>VoE 142  MRI</td>
<td>Luís Lança; Singapore/SG</td>
</tr>
<tr>
<td>March 11</td>
<td>Wednesday, March 11, 11:00–12:00</td>
<td>VoE 143  Education and Training</td>
<td>Michelle O’Connor; Dublin/IE</td>
</tr>
<tr>
<td>March 11</td>
<td>Wednesday, March 11, 12:00–13:00</td>
<td>VoE 144  Radiation Protection</td>
<td>Luis Ribeiro; Parchal/PT</td>
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<td>March 11</td>
<td>Wednesday, March 11, 13:00–14:00</td>
<td>VoE 145  Italian</td>
<td>Diego Catania; Milano/IT</td>
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<td>March 11</td>
<td>Wednesday, March 11, 14:00–15:00</td>
<td>VoE 146  Ultrasound</td>
<td>Michelle O’Connor; Dublin/IE</td>
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<tr>
<td>March 11</td>
<td>Wednesday, March 11, 15:00–16:00</td>
<td>VoE 147  Cardiology</td>
<td>Jonathan Portelli; Msida/MT</td>
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<td>March 12</td>
<td>Thursday, March 12, 09:00–10:00</td>
<td>VoE 148  Italian</td>
<td>Diego Catania; Milano/IT</td>
</tr>
<tr>
<td>March 12</td>
<td>Thursday, March 12, 12:00–13:00</td>
<td>VoE 150  Spanish</td>
<td>María Jesús Suárez Hernández; Galdakao/ES</td>
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<tr>
<td>March 12</td>
<td>Thursday, March 12, 13:00–14:00</td>
<td>VoE 151  MRI</td>
<td>Andrew England; Manchester/UK</td>
</tr>
<tr>
<td>March 12</td>
<td>Thursday, March 12, 14:00–15:00</td>
<td>VoE 152  Japanese</td>
<td>Yasuo Nakazawa; Tokyo/JP</td>
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<td>March 12</td>
<td>Thursday, March 12, 15:00–16:00</td>
<td>VoE 153  Paediatrics</td>
<td>Luis Lança; Singapore/SG</td>
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<td>March 12</td>
<td>Thursday, March 12, 16:00–17:00</td>
<td>VoE 154  French</td>
<td>Philippe Gerson; Paris/FR</td>
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<tr>
<td>March 13</td>
<td>Friday, March 13, 09:00–10:00</td>
<td>VoE 155  Japanese</td>
<td>Naoki Kodama; Niigata/JP</td>
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<td>March 13</td>
<td>Friday, March 13, 11:00–12:00</td>
<td>VoE 156  Professional Issues and Practice</td>
<td>Shane Foley; Dublin/IE</td>
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<tr>
<td>March 13</td>
<td>Friday, March 13, 12:00–13:00</td>
<td>VoE 157  Asia/Australasia</td>
<td>Michael Neep; Meadowbrook/AU</td>
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<td>March 13</td>
<td>Friday, March 13, 13:00–14:00</td>
<td>VoE 158  CT</td>
<td>Andrew England; Manchester/UK</td>
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<td>March 13</td>
<td>Friday, March 13, 14:00–15:00</td>
<td>VoE 159  Portuguese</td>
<td>Altino Cunha; Bragança/PT</td>
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<tr>
<td>March 13</td>
<td>Friday, March 13, 15:00–16:00</td>
<td>VoE 160  Radiation Protection</td>
<td>Jennifer Grehan; Dublin/IE</td>
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<tr>
<td>March 14</td>
<td>Saturday, March 14, 09:00–10:00</td>
<td>VoE 161  Japanese</td>
<td>Hideki Shibata; Aichi-Pref./JP</td>
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<tr>
<td>March 14</td>
<td>Saturday, March 14, 11:00–12:00</td>
<td>VoE 162  Imaging Modalities</td>
<td>Jennifer Grehan; Dublin/IE</td>
</tr>
<tr>
<td>March 14</td>
<td>Saturday, March 14, 12:00–13:00</td>
<td>VoE 163  Italian</td>
<td>Diego Catania; Milano/IT</td>
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<td>March 14</td>
<td>Saturday, March 14, 13:00–14:00</td>
<td>VoE 164  MRI</td>
<td>Paul Bezzina; Malta/MT</td>
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<tr>
<td>March 14</td>
<td>Saturday, March 14, 13:00–14:00</td>
<td>VoE 165  Image Quality</td>
<td>Graciano Paulo; Coimbra/PT</td>
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</tbody>
</table>
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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</thead>
<tbody>
<tr>
<td><strong>Morning Session</strong></td>
<td>Industry Pitches</td>
</tr>
<tr>
<td>11:00–12:00</td>
<td></td>
</tr>
<tr>
<td><strong>Lunch Session</strong></td>
<td>The hype of AI: risks of rapidly implementing radiological AI</td>
</tr>
<tr>
<td>12:00–13:00</td>
<td>Sergey Morozov; Moscow/RU</td>
</tr>
<tr>
<td><strong>Keynote Lecture</strong></td>
<td></td>
</tr>
<tr>
<td>13:00–14:00</td>
<td>Industry Pitches</td>
</tr>
<tr>
<td><strong>Afternoon Session</strong></td>
<td></td>
</tr>
<tr>
<td>14:00–15:00</td>
<td>Moderator: Wim van Hecke; Leuven/BE</td>
</tr>
<tr>
<td><strong>Panel Discussion</strong></td>
<td>How to train radiologists and related professionals in AI?</td>
</tr>
<tr>
<td></td>
<td>Bibb Allen; Birmingham/US</td>
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<td></td>
<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></td>
<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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</table>

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<thead>
<tr>
<th>12 March</th>
<th>Thursday, March 12:</th>
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<tbody>
<tr>
<td><strong>Morning Session</strong></td>
<td>Industry Pitches</td>
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<tr>
<td>11:00–12:00</td>
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<tr>
<td><strong>Lunch Session</strong></td>
<td>Multi-society vision on ethics in AI</td>
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<tr>
<td>12:00–13:00</td>
<td>Raymond Geis; Fort Collins/US</td>
</tr>
<tr>
<td><strong>Keynote Lecture</strong></td>
<td></td>
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<tr>
<td>13:00–14:00</td>
<td>Industry Pitches</td>
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<tr>
<td><strong>Afternoon Session</strong></td>
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</tr>
<tr>
<td>14:00–15:00</td>
<td>Moderator: Hugh Harvey; London/UK</td>
</tr>
<tr>
<td><strong>Panel Discussion</strong></td>
<td>AI beyond radiology image analysis</td>
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<td></td>
<td>Kieran Foley; Liamtrisant/UK</td>
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<td></td>
<td>Raymond Geis; Fort Collins/US</td>
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<td></td>
<td>Ana Jimenez-Pastor; Valencia/ES</td>
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<tr>
<td></td>
<td>Jacob Johannes Visser; Rotterdam/NL</td>
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<tr>
<td>15:00–16:00</td>
<td>Industry Pitches</td>
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</table>

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<thead>
<tr>
<th>13 March</th>
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<tbody>
<tr>
<td><strong>Morning Session</strong></td>
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<tr>
<td><strong>Lunch Session</strong></td>
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<tr>
<td>12:00–13:00</td>
<td>Moderator: Hugh Harvey; London/UK</td>
</tr>
<tr>
<td><strong>Keynote Lecture</strong></td>
<td>Human-computer interaction and AI</td>
</tr>
<tr>
<td>13:00–14:00</td>
<td>Fokie Cnossen; Groningen/NL</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>14 March</th>
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<tbody>
<tr>
<td><strong>Morning Session</strong></td>
<td>Industry Pitches</td>
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<tr>
<td>12:00–13:00</td>
<td>Moderator: Wim van Hecke; Leuven/BE</td>
</tr>
<tr>
<td><strong>Keynote Lecture</strong></td>
<td>AI and liability in radiology practice</td>
</tr>
<tr>
<td>13:00–14:00</td>
<td>Nils Broeckx; Antwerp/BE</td>
</tr>
<tr>
<td><strong>Afternoon Session</strong></td>
<td></td>
</tr>
<tr>
<td>14:00–15:00</td>
<td>Moderator: Hugh Harvey; London/UK</td>
</tr>
<tr>
<td><strong>Panel Discussion</strong></td>
<td>Data sharing with industry for AI: legal and ethical issues</td>
</tr>
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<td></td>
<td>Jörg F. Debatin; Berlin/DE</td>
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<td></td>
<td>Daniele Regge; Candiolo/IT</td>
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<td></td>
<td>Elmar Kotter; Freiburg/DE</td>
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</tbody>
</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).

**11 March - Wednesday, March 11:**

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<tr>
<th>Time</th>
<th>Event Description</th>
<th>Speaker/Location</th>
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</thead>
<tbody>
<tr>
<td>09:00-09:30</td>
<td><strong>Tools of the trade: piping the periphery</strong></td>
<td>Raúl García Marcos; Valencia/ES</td>
</tr>
<tr>
<td>09:30-10:30</td>
<td><strong>Simulation activities</strong></td>
<td></td>
</tr>
<tr>
<td>10:30-11:00</td>
<td><strong>What Would You Do?</strong> Cases studies presented through quiz**</td>
<td>Iñigo Insausti Gorbea; Pamplona/ES</td>
</tr>
<tr>
<td>11:00-12:00</td>
<td><strong>Simulation activities</strong></td>
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**Afternoon Session**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
<th>Speaker/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:00-14:30</td>
<td><strong>Special topic</strong></td>
<td>Alberto Alonso-Burgos; Madrid/ES</td>
</tr>
<tr>
<td>14:30-15:30</td>
<td><strong>Simulation activities</strong></td>
<td></td>
</tr>
<tr>
<td>15:30-16:00</td>
<td><strong>Peripheral emergencies</strong></td>
<td>Adrián Picado Bermúdez; Valencia/ES</td>
</tr>
<tr>
<td>16:00-17:00</td>
<td><strong>Simulation activities</strong></td>
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**12 March - Thursday, March 12:**

<table>
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<tr>
<th>Time</th>
<th>Event Description</th>
<th>Speaker/Location</th>
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</thead>
<tbody>
<tr>
<td>09:00-09:30</td>
<td><strong>Tools of the trade: the aortic alphabet soup</strong></td>
<td>Bora Peynircioğlu; Ankara/TR</td>
</tr>
<tr>
<td>09:30-10:30</td>
<td><strong>Simulation activities</strong></td>
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</tr>
<tr>
<td>10:30-11:00</td>
<td><strong>What Would You Do?</strong> Cases studies presented through quiz**</td>
<td>Elika Kashef; London/UK</td>
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<td>11:00-12:00</td>
<td><strong>Simulation activities</strong></td>
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<th>Speaker/Location</th>
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<tbody>
<tr>
<td>14:00-14:30</td>
<td><strong>Special topic</strong></td>
<td>Stavros Charalabos Spiliopoulos; Athens/GR</td>
</tr>
<tr>
<td>14:30-15:30</td>
<td><strong>Simulation activities</strong></td>
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<tr>
<td>15:30-16:00</td>
<td><strong>Central emergencies</strong></td>
<td>Panos Gkoutziós; London/UK</td>
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<tr>
<td>16:00-17:00</td>
<td><strong>Simulation activities</strong></td>
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**13 March - Friday, March 13:**

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<tr>
<th>Time</th>
<th>Event Description</th>
<th>Speaker/Location</th>
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<tbody>
<tr>
<td>09:00-09:30</td>
<td><strong>Tools of the trade: to cool to burn to embolise</strong></td>
<td>Filippo Piacentino; Varese/IT</td>
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<tr>
<td>09:30-10:30</td>
<td><strong>Simulation activities</strong></td>
<td></td>
</tr>
<tr>
<td>10:30-11:00</td>
<td><strong>What Would You Do?</strong> Cases studies presented through quiz**</td>
<td>Salvatore Alessio Angileri; Milan/IT</td>
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<tr>
<td>11:00-12:00</td>
<td><strong>Simulation activities</strong></td>
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**Afternoon Session**

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<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
<th>Speaker/Location</th>
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</thead>
<tbody>
<tr>
<td>14:00-14:30</td>
<td><strong>Special topic</strong></td>
<td>Gianpaolo Carrafiello; Milan/IT</td>
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<tr>
<td>14:30-15:30</td>
<td><strong>Simulation activities</strong></td>
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<tr>
<td>15:30-16:00</td>
<td><strong>Oncological emergencies</strong></td>
<td>Anna Maria Ierardi; Milan/IT</td>
</tr>
<tr>
<td>16:00 17:00</td>
<td><strong>Simulation activities</strong></td>
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</table>

**14 March - Saturday, March 14:**

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<tr>
<th>Time</th>
<th>Event Description</th>
<th>Speaker/Location</th>
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<tbody>
<tr>
<td>09:00-09:30</td>
<td><strong>Tools of the trade: neuro specials</strong></td>
<td>Eberhard Siebert; Berlin/DE</td>
</tr>
<tr>
<td>09:30-10:30</td>
<td><strong>Simulation activities</strong></td>
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</tr>
<tr>
<td>10:30-11:00</td>
<td><strong>What Would You Do?</strong> Cases studies presented through quiz**</td>
<td>Grégoire Boulouis; Paris/FR</td>
</tr>
<tr>
<td>11:00-12:00</td>
<td><strong>Simulation activities</strong></td>
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<th>Speaker/Location</th>
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</thead>
<tbody>
<tr>
<td>14:00-14:30</td>
<td><strong>Special topic</strong></td>
<td>Hans Henkes; Stuttgart/DE</td>
</tr>
<tr>
<td>14:30-15:30</td>
<td><strong>Simulation activities</strong></td>
<td></td>
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<td>15:30-16:00</td>
<td><strong>Neurological emergencies</strong></td>
<td>Aymeric Rouchaud; Paris/FR</td>
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<td>16:00-17:00</td>
<td><strong>Simulation activities</strong></td>
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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 3** Satellite Symposium organised by GE Healthcare

**Wednesday, March 11, 12:45–13:45, Room F2**

**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 Samsung

**Thursday, March 12, 12:45–13:45, Room N**

**SY 10** Satellite Symposium organised by Siemens Healthineers

**Thursday, March 12, 12:45–13:45, Room E**

**SY 11** Satellite Symposium organised by Bracco

**Thursday, March 12, 12:45–13:45, Room Y**

**SY 12** Satellite Symposium organised by GE Healthcare Russia

**Thursday, March 12, 12:45–13:45, Room M2**

**SY 13** Satellite Symposium organised by Philips

**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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<td><strong>Friday, March 13</strong></td>
<td><strong>12:45-13:45</strong></td>
<td><strong>Room X</strong></td>
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<td><strong>SY 16</strong></td>
<td>Satellite Symposium organised by SOPHIA GENETICS</td>
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<td><strong>SY 21</strong></td>
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<td><strong>Friday, March 13</strong></td>
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<td><strong>SY 23</strong></td>
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**Saturday, March 14**

**SY 22** Satellite Symposium organised by Samsung
Teach, train & test yourself with the largest peer-reviewed collection of radiological case reports
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)
08:30 - 10:00 Room X

**Joint Session of the ESR and ESTRO**

**ESR/ESTRO**

Radiology and radiotherapy in liver tumours

**ESR/ESTRO-1/ESTR-2 08:30**

Chairpersons’ introduction
R. G. H. Beets-Tan; Amsterdam/NL (t.beetst@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 Jaureguizar; 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 N

**Neuro**

**RC 111**

Cranio-cervical 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 cranio-cervical junction.
2. To recognise fractures and ligamentous injury of the cranio-cervical junction.
3. To be aware of cranio-cervical 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 cranio-cervical junction.
2. To learn about associated cerebellar and spinal cord abnormalities.
3. To illustrate cranio-cervical 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 cranio-cervical injuries.

**RC 111-4 09:21**

C. Systemic diseases and tumours
K.-O. Loeblad; Geneva/CH (Karl-Olof.Loveblad@hcuge.ch)

**Learning objectives:**
1. To recognise cranio-cervical injuries in rheumatoid arthritis.
2. To differentiate systemic diseases from other pathology involving the cranio-cervical junction.
3. To become familiar with retro-odontoid pseudotumours without rheumatoid arthritis.

09:44

Panel discussion: Imaging strategies for assessing the cranio-cervical junction

09:00 - 10:00 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. Fria; Paris/FR (guy.fria@aphp.fr)
L Krail; Zagreb/HR (lkrail@kbsd.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 E

E³ - Advanced Course: Interactive Teaching Session for Young (and not so Young) Radiologists

E³ 121a
Musculoskeletal tumours

E³ 121a-1 08:30
A. Soft tissue tumours
F. M. H. M. Vanhoenacker; Antwerp/BE (filip.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.

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. Schafer-Prokop; Amersfoort/NL (cornelia.schaferprokop@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. Drolslum; Oslo/NO (adrolslum@gmail.com)

Learning objectives:
1. To demonstrate the CT acquisition protocol relevant for staging of 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.
Cardiac

**RC 103**
Imaging the complexity of pulmonary hypertension (PH) “syndrome”

**Moderator:**
M. Francone; Rome/IT

**RC 103-1 08:30**
A. Uncoupling right ventricular physiology with cardiovascular magnetic resonance (CMR): from early adaptation to heart failure

**Learning objectives:**
1. To review peculiarities of right heart physiology and ventricular interdependence in pulmonary hypertension.
2. To outline early and late morpho-functional changes associate with right ventricular pressure overload.
3. To understand the primary role of CMR in the evaluation of different forms of pulmonary hypertension.

**RC 103-2 09:00**
B. Assessment of PH by CT

**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

**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.

**RC 114**
The role of radiographers in ensuring quality in practice

**RC 114-1/RC 114-2 08:30**
Chairpersons’ introduction

**Learning 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 consider potential for continuous professional development to support justification across modalities.

**RC 114-3 08:36**
A. The radiographers’ role in justification

**Learning objectives:**
1. To review the relevant EU legislation.
2. To consider 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

**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

**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

**SF 1a**
Evaluating oncologic treatment response in clinical practice and trials

**SF 1a-1 08:30**
Chairperson’s introduction

**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-2 08:40**
Insights from trials about endpoints for response evaluation in clinical practice

**SF 1a-3 09:00**
Integrating quantitative imaging into clinical practice

**Learning objectives:**
1. To describe approaches to integrating quantitative imaging into clinical practice.
2. To describe the role of quantitative imaging in clinical practice.
3. To describe how to best use imaging for response evaluation.

**SF 1a-4 09:20**
Quantification of bone metastases becomes possible in clinical practice

**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.
**Learning objectives:**
1. To understand the imaging features of congenital disorders 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.

**Session objectives:**
1. To review 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.

**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 the limits of deep learning approaches.

**Learning objectives:**
1. To understand deep learning algorithms are trained.
2. To learn about the various conventional machine learning techniques.
3. To learn about pros and cons of conventional machine learning vs deep learning.

**Learning objectives:**
1. To understand how AI will transform medical imaging in the long term.
2. To focus on the current challenges related to AI development and deployment in clinical conditions.
3. To discuss the key role of anatomy in the dissemination of malignancies or the restriction of inflammatory processes in the abdomen.

**Learning objectives:**
1. To explain 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.

**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 understand the limits of deep learning approaches.

**Learning objectives:**
1. To understand that most of the current hype in radiology is about intelligence domains.
2. To understand how deep learning algorithms are trained.
3. To learn about the difference between machine learning and deep learning.

**Learning 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.

**Learning objectives:**
1. To learn about the basic applications of artificial intelligence (AI) 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.
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.

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 2a-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

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 (MJ.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.
RC 201-3 11:30
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.

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 (eric.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: 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.

C 10-6 11:35
Open forum discussion

10:30 - 12:00 Room E

E3 - Rising Stars Programme: Basic Session

BS 2
Radiologic anatomy: chest
Moderator: F. Rengier; Heidelberg/DE

Learning objectives:
1. To review the mediastinal anatomy according to old and new classifications.
2. To define “normal” and “abnormal” mediastinal anatomy.
3. To use radiologic anatomy to characterise mediastinal lesions and to stage tumours.

BS 2-1 10:30
Mediastinal
M. Occhipinti: Florence/IT (mariaelena.occhipinti@gmail.com)

Learning objectives:
1. To know how to interpret mediastinal lines and contours in chest radiography.
2. To become familiar with “signs” in chest radiography helpful for diagnosis.
3. To know the normal appearance of lung parenchyma on CT and to use the anatomy of the secondary lobule for analysis of chest diseases.

BS 2-2 11:00
Lungs
C. M. M. Schaefer-Prokop: Amersfoort/NL (cornelia.schaeferprokop@gmail.com)

Learning objectives:
1. To explain the imaging findings of bone tumours.
2. To describe how to differentiate benign from malignant bone lesions.

BS 2-3 11:30
Vasculature
I. Žuža: Kostrena/HR

Learning objectives:
1. To identify thoracic vascular structures on chest x-rays.
2. To interpret chest vasculature, including aorta and coronary arteries, major aortic branches, and pulmonary arteries and veins by using multidetector CT (MDCT).
3. To review and illustrate the most common variants and anomalies.
4. To discuss the challenges and limitations in interpretation based on particular CT scanning protocols.

10:30 - 12:00 Room F2

Musculoskeletal

RC 210
Musculoskeletal tumours
Moderator: F. B. Ergen; Ankara/TR

RC 210-1 10:30
A. Bone tumours and tumour-like conditions
P. G. O’Donnell: St Albans/UK (paulodonnell@nhs.net)

Learning objectives:
1. To explain the imaging findings of bone tumours.
2. To describe how to differentiate benign from malignant bone lesions.

RC 210-2 11:00
B. Soft tissue tumours
A. Bazzocchi: Bologna/IT (abazzo@inwind.it)

Learning objectives:
1. To explain the imaging findings of soft tissue tumours.
2. To describe differential diagnostic considerations in imaging soft tissue tumours.

RC 210-3 11:30
C. Tumours of the spinal column
F. H. M. Vanhoenacker: Antwerp/BE (filip.vanhoenacker@telenet.be)

Learning objectives:
1. To explain the imaging findings of spinal tumours.
2. To describe differential diagnostic considerations in imaging spinal tumours.
**Special Focus Session**

**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.

**Panel discussion: How to deal with symptomatic patients without definite imaging findings?**

**10:30 - 12:00**

**Da Vinci (Room D1)**

**Paediatric**

**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.

**RC 212-2 10:35**

A. Use of fluoroscopy in neonates with suspected gastrointestinal pathology

I. Aagenæs; Oslo/NO (iaagenes@gmail.com)

**Learning objectives:**
1. To learn about the most common indications for fluoroscopy in non-urogenital queries in neonates.
2. To become familiar with the technique, findings, and pitfalls for the most common fluoroscopy non-urogenital queries in the neonate.
3. To discuss the best fluoroscopic approach in suspected bowel obstruction in a neonate.

**RC 212-3 11:00**

B. Gastrointestinal and other applications in the older child

J. Barber; London/UK

**Learning objectives:**
1. To learn about the most common indications for fluoroscopy in non-urogenital queries in infant and older children.
2. To become familiar with the technique of the most common fluoroscopy queries in this patient group.
3. To discuss the most common findings and pitfalls.

**RC 212-4 11:25**

C. Urogenital applications

G. Perucca; Turin, TO/IT (giuliaperucca@yahoo.it)

**Learning objectives:**
1. To learn about the indications for fluoroscopy in urogenital queries in children.
2. To become familiar with the technique in fluoroscopic urogenital queries.
3. To discuss the most common findings and pitfalls.

**11:50**

Panel discussion: When can ultrasound imaging replace fluoroscopy?

**10:30 - 12:00**

**Descartes (Room D3)**

**ESR Ultrasound Subcommittee Session**

**US 2**

*Ultrasound (US) incidental findings*

**Moderators:**
C. M. Nyhsen; Haguenau/FR
P. Ricci; Rome/IT

**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 multimodality 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 multimodality 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 multimodality management of incidental findings.
US 2-4 11:30
Testis and ovary
P. S. Sidhu; London/UK (paulсидhu@ihms.net)

Learning objectives:
1. To learn how to manage incidental findings.
2. To appreciate the accuracy of multiparametric ultrasound imaging for immediate diagnosis of incidentalomas.
3. To understand the differential diagnosis and correct or best multimodality 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. Rumbold; 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.

11:22
Panel discussion: The future role of radiographers in radiotherapy treatment and planning: opportunities for the advancement of roles

10:30 - 12:00 Room M 2

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.
Learning objectives:
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.

3. To discuss different IR techniques and outcomes.

Panel discussion: Should emergency treatment for deep vein thrombosis become part of IR service?

10:30 - 12:00 Room M 4

E³ 221 - Advanced Course: Interactive Teaching Session for Young (and not so Young) Radiologists

E³ 221 Paediatric brain imaging

E³ 220 Artificial intelligence for image reconstruction: towards deep imaging?

E³ 220-1 10:30
Chairperson's introduction
D. Le Bihan; Gif Sur Yvette/FR (denis.lebihan@gmail.com)

Session objectives:
1. To understand what is hype and what can be expected in deep learning.
2. To understand the impact of artificial intelligence vs other learning based reconstruction.
3. To show the application of deep learning in the reconstruction of MRI musculoskeletal images.

E³ 220-2 10:36
A. Deep learning for MRI reconstruction
K. Hammernik, London/UK (k.hammernik@imperial.ac.uk)

Learning objectives:
1. To show how with deep learning we can learn the entire MRI reconstruction procedure.
2. To understand the advantages and disadvantages of using deep learning in MRI reconstruction.
3. To show the application of deep learning in the reconstruction of MRI musculoskeletal images.

E³ 220-3 11:04
B. Deep learning in cardiovascular MRI
D. Rueckert; London/UK (D.Rueckert@imperial.ac.uk)

Learning objectives:
1. To understand how MRI acquisition time can be reduced with deep learning.
2. To understand potential artefacts related to deep learning based image reconstruction.
3. To show applications of deep learning in the reconstruction of cardiovascular MRI data.
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 learn about tumour heterogeneity.
2. To review current strategies to explore biological heterogeneity.
3. To become familiar with the concepts behind quantification, including machine learning approaches.

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 the impact of heterogeneity on diagnosis and treatment.
2. To review current strategies to explore biological heterogeneity.
3. To understand how this heterogeneity impacts diagnosis and treatment.

Learning objectives:
1. To learn how heterogeneity can be quantified from images.
2. To understand the main classes of heterogeneity on imaging.
3. To review limits and pitfalls of features extraction.

Learning objectives:
1. To learn to apply for a BRACCO clinical fellowship.
2. To become familiar with the practical aspects of preparing a clinical fellowship in the UK such as language requirements, GMC application and housing.
3. To learn about ESR’s role supporting international training and to share it.

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 international training opportunities for young radiologists, enhancing scientific mobility, and promoting cooperation between centres of different countries.
3. 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 application process for visiting scholar in USA.
2. To understand the usefulness of getting in touch with the American medical system.
3. To appreciate to work with people from all over the world.

Learning objectives:
1. To learn about mammographic image quality and mammographic breast density.
2. To recognise and name main imaging findings using the breast density.
3. To understand the impact of tumour heterogeneity on diagnosis and treatment.
4. To become familiar with all aspects of the exchange fellowship participant.

Learning objectives:
1. To learn how to apply for an exchange fellowship program in Europe.
2. To understand the role of the exchange fellowship program for the participant.
3. To become familiar with all aspects of the exchange fellowship program.
4. To appreciate the chance to work in a world-leading team.

Learning objectives:
1. To learn how to optimise the acquisition of images for quantitative imaging.
2. To understand image processing which may impact quantification.
3. To become familiar with the concepts behind quantification, including machine learning approaches.

Panel discussion: What can we quantify and why is it essential?

Coffee & Talk (open forum) Session
Organised by ESOR

The scholar and fellow’s experience

The scholar and fellow’s experience

Chairperson’s introduction
M. I. Argyropoulou; Ioannina/GR

Chairperson’s introduction
J. O’Connor; Manchester/UK (James.O’Connor@manchester.ac.uk)

Session objectives:
1. To understand the impact of tumour heterogeneity on diagnosis and treatment.
2. To review current strategies to explore biological heterogeneity.
3. To understand how this heterogeneity impacts diagnosis and treatment.

Session objectives:
1. To assess mammographic image quality and mammographic breast density.
2. To review current strategies to explore biological heterogeneity.
3. To understand how this heterogeneity impacts diagnosis and treatment.

E3 - ECR Master Class (Molecular Imaging)

E3 226
Quantitative imaging in oncology

E3 226-1 10:30
Chairperson’s introduction
J. O’Connor; Manchester/UK (James.O’Connor@manchester.ac.uk)

E3 226-2 10:35
A. Intra- and intertumoral heterogeneity and the impact for cancer diagnostics
M. Eisenblaetter; Freiburg/DE (micheleisenblaetter@uniklinik-freiburg.de)

E3 226-3 11:00
B. Quantitative image biomarkers for targeted tumour therapies
R. Garcia Figueiras; Santiago de Compostela/ES (roberto.garcia.figueiras@sergas.es)

E3 226-4 11:25
C. From quantitative imaging to radiomics and deep learning
H. K. Hahn; Bremen/DE

E3 226-5 11:46
D. Imaging biomarkers for clinical decision support
H. K. Hahn; Bremen/DE

Wednesday
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.

12:45 - 13:45 Coffee & Talk 3

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

12:45 - 13:45 Room G

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 (tibollen@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.

12:45 - 13:30 Room M 5

ERDi Session

ERDi 1
An instrument to develop excellence in your career: practical session (part 1)
Moderator:
L. Oleaga Zufiria; Barcelona/ES

ERDi 1-1 12:45
ERDi teaser
L. Oleaga Zufiria; Barcelona/ES (lauraoleaga@gmail.com)

Learning objectives:
1. To present the ERDi examination.
2. To show the structure of the ERDi exam.
3. To review some practical cases: multiple response questions, short cases, and CORE cases.

ERDi 1-2 13:05
Tips from an ERDi holder
A. Pons Escoda; Barcelona/ES (aponse@hotmail.com)

Learning objectives:
1. To review ten essential tips to succeed in the ERDi.
2. To highlight the importance of the ERDi.
3. To explain the advantages of having the ERDi.

14:00 - 15:30 Room N

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 (guyfrija@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.
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@hus.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.Licht@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 (aviramgali@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 list 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

Oncoologic 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.
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 (pclauser@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 learn about 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?

**C 34**

**Oncologic imaging and the World Health Organisation (WHO)**

**C 34-1 14:00**

Chairperson’s introduction
E. Denton, Norwich/UK (erika.denton@nnuh.nhs.uk)

**Session objectives:**
1. To understand how the International Agency for Research on Cancer IARC at The World Health Organisation currently collaborates with radiology experts.
2. To understand the outputs and publications from IARC and how imaging involvement is proposed and how radiology will be reflected in future governance and publications.
3. To understand current oncologic imaging standards for reporting.

**C 34-2 14:05**

The work of the World Health Organisation in oncologic imaging
I. A. Cree, Lyons/FR (creei@iarc.fr)

**Learning objectives:**
1. To understand work of the World Health Organisation Classification of Tumours Editorial Board.
2. To understand the publications produced by the WHO for oncological reporting and where imaging will be represented.

**C 34-3 14:15**

How do radiologists currently standardise oncologic reporting?
A. Rockall, London/UK (a.rockall@imperial.ac.uk)

**Learning objectives:**
1. To understand the standards radiologists currently use to report oncologic imaging.
2. To understand how international standards might impact oncologic imaging.

14:25
Open forum discussion

**14:00 - 15:30 Da Vinci (Room D1)**

**Genitourinary**

**RC 307**

**The retroperitoneal “non-renal” mass**

**RC 307-1 14:00**

Chairperson’s introduction
M. Bertolotto, Trieste/IT (bertolot@units.it)

**Session objectives:**
1. To understand the imaging features of primary retroperitoneal tumours.
2. To know the imaging role in patients with “functioning” adrenal lesions.
3. To be able to recognise non-neoplastic retroperitoneal diseases and to guide patient management.

**RC 307-2 14:05**

A. Imaging primary retroperitoneal tumours
G. Heinz, St. Pölten/AT (gertraud.heinz@stpoeiien.knoe.at)

**Learning objectives:**
1. To know the imaging findings that allow recognising a mass as retroperitoneal.
2. To understand how to differentiate among different retroperitoneal tumours.
3. To be able to provide guidance to the surgical approach of these lesions.
2. To appreciate how to avoid unsuccessful collaborations.

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 (m.scaglione@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
I. 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.M.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.mcnelly@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.

EFRS WS 3-5 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
E² - European Diploma Prep Session

E² 323
Interventional

E² 323-1 14:00
Chairperson’s Introduction
J. I. Bilbao; Pamplona/ES (jibilbao@unaves)

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.
E³ 323-2 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.

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 manage these complications.
3. To become familiar with the protocols in imaging of brain death and potential organ donation.

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
B. 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 anatomic 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.
Wednesday

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 Garmendia; 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.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.

E³ 320-4 15:02
C. How far are we in getting AI into clinical practice?
L. Marti-Bonmati; Valencia/ES (Luis.Marti@uv.es)

Learning objectives:
1. To critically review the current level of AI adoption in clinical practice.
2. To understand the need of data scientists working in radiology departments.
3. To discuss what next steps need to be taken in order to increase take-up in clinical practice.

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 effects of GDPR for scientific use of imaging data.
2. 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 learn about the content of the GDPR.
2. To understand the effects of GDPR on data sharing.
3. To become familiar with the terminology as used in GDPR.

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 learn about 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 radiology fellows in improving quality in radiology.

C 2-3 16:20
Role of radiographers in “Quality and Standards”
H. Hjømly; 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

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 (elisov@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 recognise the differences between the dosimetric quantities used for diagnostic reference levels and those used for the epidemiological studies and population dose evaluation.
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 MEDIRAD project
J. Damilakis; Iraklion/GR (John.Damilakis@med.uoc.gr)

Learning objectives:
1. To learn about the objectives of the MEDIRAD 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 MEDIRAD 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?
Wednesday

Postgraduate Educational Programme

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 (jonnedodd@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

EuroSafe Imaging Session

EU 4b
Building capacity and quality/safety awareness in Africa
Moderators:
M. Abdel-Wahab; Vienna/AT
S. Abdulrazak; Vienna/AT
G. Frija; Paris/FR

C11-1/C 11-2/C 11-3 16:00
Introduction
B. Brijak; Zagreb/HR
G. Frija; Paris/FR (guy.frija@apho.fr)
S. Abdulrazak; 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 learn about the exchange of knowledge between African countries via ESR and IAEA.

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

PS 427-1 16:00
Chairperson’s Introduction
F. J. Gilbert; Cambridge/UK (fjg28@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.
**B. The evidence against breast screening**

P. Autier; Dardilly/FR (philippe.autier@i-pri.org)

**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.

**RC 410-3 17:00**

C. Imaging-guided percutaneous treatment of forefoot pain

R. L. Carzatto; Strasbourg/FR (gigicazzato@hotmail.it)

**Learning objectives:**
1. To explain the rationale behind the imaging-guided percutaneous treatment of forefoot pain.
2. To describe the imaging-guided percutaneous procedures for the treatment of forefoot pain.

**RC 410-4 16:22**

Artificial intelligence (AI) for analysis in large-scale population studies: UK biobank

D. Rueckert; London/UK (D.Rueckert@imperial.ac.uk)

**Learning objectives:**
1. To report the rationale of the UK biobank.
2. To describe the imaging workflow used.
3. To discuss the application of AI tools.

**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@sll.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.

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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 (andarnell@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.

**RC 410-2 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.

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**Musculoskeletal**

**RC 410**

Imaging of chronic forefoot 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 forefoot pain.
2. To describe the imaging findings of articular disorders that present with chronic forefoot 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 forefoot pain.
2. To describe the imaging findings of extra-articular conditions that are present in chronic forefoot pain.

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**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@sll.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.


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 and public practitioner partnerships at a national level: a UK case study
R. Harris; London/UK (rachelh@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. Pricots; Middelfart/DK (hepr@ucd.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.
Panel discussion: How can we ensure MRI radiographers keep up to date with evolving safety requirements?

**Room G**

**Genitourinary**

**RC 407**

**Acute and chronic pelvic pain**

RC 407-1 16:00
Chairperson’s introduction
O. Nikolic; Novi Sad/RS (nikolic.olivea@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 (raman.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 the treatment options, particularly venous embolisations.

17:21
Panel discussion: What radiologists have to know in female pelvic pain imaging

**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. Lobato; Lisbon/PT (m Lilu Lobato@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?

**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.scarsbrook@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.
RC 406-2 16:30
B. Hybrid imaging with PET/MRI
F. Kiessling; Aachen/DE (FKiessling@ukaachen.de)

Learning objectives:
1. To learn the basic principles of hybrid PET/MRI.
2. To understand what new information can be provided by PET/MRI.
3. To learn about emerging clinical applications of PET/MRI.

RC 406-3 17:00
C. Hyperpolarised MRI
F. A. Gallagher; Cambridge/UK (fag1000@cam.ac.uk)

Learning objectives:
1. To learn the basic principles of hyperpolarisation.
2. To understand what new information can be provided by hyperpolarised MRI.
3. To learn about oncological and non-oncological applications of hyperpolarised MRI.

16:00 - 17:30 Room M 2

E³ - Advanced Course: Hot Topics in Emergency Radiology

E³ 418
Non-neurological complications in intensive care patients

E³ 418-1 16:00
Chairperson’s introduction
M.-A. Weber; Rostock/DE (marc-andre.weber@med.uni-rostock.de)

Session objectives:
1. To become familiar with common and less frequent 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 common diagnostic questions, treatments, and interventions arising in ICU.

E³ 418-2 16:06
A. The white chest and severe dyspnoea
M. Herman; Olomouc/CZ (miroslav.herman@fnol.cz)

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 418-3 16:34
B. Acute abdominal complications
M. Scaglione; Middlesborough/UK (mscaglione@tiscali.it)

Learning objectives:
1. To become familiar with the most common requests: infection, bleeding, ischaemia, leakage, and obstruction.
2. To learn about the different imaging protocols (when to use intravenous and enteral contrast agent).
3. To learn the main imaging findings.

E³ 418-4 17:02
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 about the optimal utilisation of materials, equipment, and imaging including low-dose CT.
3. To learn the management of patients after failed interventional treatments.

16:00 - 17:30 Room M 3

Head and Neck

RC 408
Imaging of eye and orbital pathologies
Moderator:
M. Lemmerling; Beerzel/BE

RC 408-1 16:00
A. Traumatic lesions of the eye and orbit
A. Ailianou; Neuchâtel/CH (a_ailianou@yahoo.com)

Learning objectives:
1. To become familiar with imaging features of orbital fractures.
2. To learn about traumatic lesions of the eye and orbital soft tissues.
3. To review acute and chronic complications after orbital trauma.

RC 408-2 16:30
B. Infection and inflammation in the eye and orbit
K. Erb-Eigner; Berlin/DE (Katharina.Erb@charite.de)

Learning objectives:
1. To become familiar with infections and inflammation in different orbital structures.
2. To discuss imaging features of infection and inflammation in the eye and orbit.
3. To learn how to reach the final diagnosis.

RC 408-3 17:00
C. Benign and malignant masses of the eye and orbit
P. de Graaf; Amsterdam/NL (p.degraaf@amsterdamumc.nl)

Learning objectives:
1. To discuss advanced imaging techniques in tumoural orbit lesions.
2. To review intraocular tumours.
3. To become familiar with intraorbital masses.

16:00 - 17:30 Room M 5

E³ - Advanced Course: Artificial Intelligence

E³ 420
Radiomics: principles and applications

E³ 420-1 16:00
Chairperson’s introduction
S. Klein; Rotterdam/NL (s.klein@erasmusmc.nl)

Session objectives:
1. To become familiar with the basic principles of radiomics.
2. To understand that radiomics is a specific branch of machine learning.
3. To learn about the difference between radiomics and deep learning.

E³ 420-2 16:06
A. Radiomics: images are data!
G. Cicchetti; Rome/IT (cicchetti.giuseppe88@gmail.com)

Learning objectives:
1. To understand the design of a pipeline to develop a radiomics signature.
2. To learn about the current state of the art in radiomics.
3. To learn about the impact of radiomics for precision medicine.

E³ 420-3 16:34
B. Radiomics applications
T. Penzkofer; Berlin/DE

Learning objectives:
1. To learn about the state of the art of radiomics in prostate cancer.
2. To learn about the state of the art of radiomics in gliomas.
3. To learn about other promising application areas of radiomics.
E2 420-4 17:02

C. Multicentre studies for more robust radiomics signatures
M. P. A. Starmans; Rotterdam/NL (m.starmans@erasusmc.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.

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 (filipponea37@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 (vsini@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.

Professional Challenges Session

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 multidisciplinary working in the context of clinical audit.
2. To consider mechanisms of facilitating multidisciplinary involvement.
3. To evaluate multidisciplinary audit in practice.

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.

Panel discussion: Auditing: cumbersome formality or beneficial value-adding activity?
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/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; Llantrisant/UK

Learning objectives:
1. To understand 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

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 (brkljacic@gmail.com)

Session objectives:
1. To understand the major limitations of biomarkers used to diagnose heart failure.
2. To appreciate the role of thrombus-targeted fibrinolysis as a promising theranostic approach in diagnosing and managing pulmonary embolism.
3. To identify opportunities for combining radiological and laboratory investigations for more efficient management of patients with heart failure.

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.

09:45
Panel discussion: Integrating the diagnostic strategies in radiology and laboratory medicine: a “nice to have” or a necessity?

09:00 - 10:30 Room O

Genitourinary

RC 507
Imaging in pregnancy

RC 507-1 08:30
Chairperson’s introduction
G. Masselli; Rome/IT (gabriele.masselli@uniroma1.it)

Session objectives:
1. To understand how to safely perform imaging procedures in pregnant women.
2. To become familiar with the most relevant pathological conditions in pregnancy.
3. To learn about the indications of imaging procedures in pregnancy.

RC 507-2 08:35
A. Safety issues in pregnancy: what radiologists need to know
C. Bourgioti; Athens/GR (charisbourgioti@yahoo.com)

Learning objectives:
1. To learn about safe radiology practices and procedures in pregnant women.
2. To understand how to minimise the radiation burden in pregnant women.
3. To learn how and when to use contrast media in pregnancy.

RC 507-3 08:58
B. Imaging acute abdomen in pregnancy
M. Weston; Leeds/UK (michael.weston2@nhs.net)

Learning objectives:
1. To become familiar with the different causes of acute abdominal pain in pregnancy.
2. To understand how to use different imaging modalities in the setting of acute abdominal pain in pregnancy.

RC 507-4 09:21
C. Imaging the placenta
H. C. Addley; Cambridge/UK (helenclareaddley@hotmail.co.uk)

Learning objectives:
1. To understand the appearance of the placenta with different imaging modalities.
2. To become familiar with the imaging appearance of the most common pathological conditions of the placenta.
3. To discuss the added value of cross-sectional imaging in the evaluation of placental abnormalities.

09:44
Panel discussion: How should we image the pregnant woman, and when?
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

Musculoskeletal

RC 510
MRI of the knee
Moderator:
E. Oei; Rotterdam/NL

RC 510-1 08:30
A. Anterior knee pain
M. Tzalonikou; Athens/GR

Learning objectives:
1. To describe the normal anatomy and MRI appearances of the anterior knee structures (including the extensor mechanism, fat pads and synovial plicae).
2. To explain the imaging appearances of pathological conditions that present with anterior knee pain.

RC 510-2 09:00
B. Meniscal abnormalities: obvious and subtle
P. Omoumi; Lausanne/CH (Patrick.Omoumi@chuv.ch)

Learning objectives:
1. To describe the anatomy of the menisci and the classification of meniscal tears.
2. To explain usual imaging appearances of meniscal tears and potential pitfalls.

RC 510-3 09:30
C. Cruciate and collateral ligaments
A. P. Parkar; Bergen/NO (apparkar@gmail.com)

Learning objectives:
1. To describe the normal anatomy and MRI appearances of the cruciate and collateral ligaments.
2. To explain the imaging appearances of pathological conditions involving the cruciate and collateral ligaments.
3. To specify the indirect signs that occur with ligament injury.

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 (michael.torkzad@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
MRI of rectal carcinoma

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
Statistics resources for radiology research

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
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.

E³ 526b-3 09:00
B. Preventing sudden cardiac death with CT: pure theory or new diagnostic paradigm?
K. Gruszczynska; Katowice/PL (kgruszczynska@poczta.onet.pl)

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 (donnaene Newman@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 (takanonmasuda@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 (akihirokasuya1224@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?
**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.

**RC 512-5 09:45**
Panel discussion: The future direction of nuclear medicine imaging in paediatric oncology

**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.

**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.
Joint Session of the ESR and UEMS

ESR/UEMS
Visibility of imaging professionals in the EU

ESR/UEMS-1/ESR/UEMS-2 08:30
Chairpersons’ introduction
M. Adriaensen, Heerlen/NL (mirade@gmail.com)
L. Bonomo, Rome/IT (lorenzo.bonomo.md@gmail.com)

Session objectives:
1. To describe the normal imaging anatomy of the oral cavity, oropharynx, hypopharynx, and larynx.
2. To understand the imaging features of tumours of the oral cavity and oropharynx.
3. To understand the imaging features of tumours of the hypopharynx and larynx.

Putting your interests first: two approaches, one goal

ESR/UEMS-3 08:36
The ESR approach
L. E. Derchi, Genoa/IT (derchi@unige.it)

Learning objectives:
1. To understand the structure of the ESR.
2. To understand the differences between the ESR and the UEMS.
3. To understand the importance of UEMS/ESR political involvement in the EU affairs.

ESR/UEMS-4 08:41
The UEMS approach
B. Maillet, Brussels/BE (bernie.mail@skynet.be)

Learning objectives:
1. To understand the structure of the UEMS.
2. To understand the differences between the ESR and the UEMS.
3. To understand the importance of UEMS/ESR political involvement in the EU affairs.

What does the EU mean for me? A radiologist’s guide

ESR/UEMS-5 08:46
To be or not to be at the table: why advocacy matters for radiologists?
K. Riklund, Umeå/SE (katrine.riklund@umu.se)

Learning objectives:
1. To understand the concept of advocacy.
2. To understand the importance of advocacy at the EU level.
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. Papalios, 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. Sasiedek, Wroclaw/PL (marek.sasiedek@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. Papalios, 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, Sremska 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. Mock; 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 (allan@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.

E³ - 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 518
The specialised paediatric radiographer
J. McNulty; Dublin/IE (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.

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 518
E³ 518-1
Chairperson’s introduction
A. Blanco Barrio; Murcia/ES (anablancowhite@gmail.com)

Session objectives:
1. To become familiar with the changes in the new WHO classification for brain neoplasms.
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.

E³ 518-2
A. Low grade glioma
M. Smits; Rotterdam/NL (marion.smits@erasmusmc.nl)

Learning objectives:
1. To appreciate the role of the radiologist in the diagnostic workup of glioma.
2. To understand perfusion imaging and its role in diagnosis and follow-up of glioma.

E³ 518-3
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 understand the role of functional imaging and perfusion imaging in the diagnostic workup of high grade glioma.
3. To present the differential diagnosis and pitfalls in imaging high grade glioma.

E³ 518-4
C. Posterior fossa tumours
S. L. Kumar; Singapore/SG (shanilkumar@gmail.com)

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

ECR 2020 Thursday
08:30 - 10:00  Room M 5

E³ - Advanced Course: Artificial Intelligence

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

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 (fag1000@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. Krestel; 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.
**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 13:15**

Functional evaluation of chronic pancreatitis
M. A. Bali; Brussels/BE (mbali@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 Coffee & Talk 1**

**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

**12:45 - 13:45 Coffee & Talk 2**

**C 13**

**ESR iGuide: more appropriate imaging through clinical decision support**

**C 13-1 12:45**

Chairperson's introduction: Update on Croatia adoption
B. Brkljačić; 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/SA

*Learning objectives:*
1. To understand the problem with ordering radiology exams in Saudi government hospitals i.e. MNG-HA.
2. To explain the operational, clinical, and technical challenges in implementing CDSS for diagnostic services such as radiology.
3. To discuss why MNG-HA did a proof of concept (PoC).
4. To detail the impact of PoC on operational and clinical factors, and costs.
5. To explain the full implantation approach and the lesson learned.

**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. Martí-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

EDiR Session

EDiR 2
An instrument to develop excellence in your career: practical session (part 2)

Moderator:
L. Oleaga Zufiria; Barcelona/ES

EDiR 2-2 12:45
EDiR teaser
L. Oleaga Zufiria; Barcelona/ES (laurooleaga@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 2-3 13:05
Tips from an EDiR holder
C. J. Tolman; Rotterdam/NL (christinetolman@hotmail.nl)

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.

14:00 - 15:30
Room B

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.Løgager@regionh.dk)
J. McNulty: Dublin/IE (jonathan.mcnutley@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?
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<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>14:00 - 15:30</td>
<td></td>
<td><strong>Children in Focus</strong></td>
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<td><strong>IF 7</strong></td>
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<td><strong>The patient journey: from foetus to adulthood</strong></td>
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<td><strong>IF 7-1</strong></td>
<td>14:00</td>
<td>Chairperson’s introduction</td>
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<td>C. Owens; Doha/QA (<a href="mailto:owens.catherine.5@gmail.com">owens.catherine.5@gmail.com</a>)</td>
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<tr>
<td><strong>Session objectives:</strong></td>
<td></td>
<td>1. To set the scene for the Children in Focus sessions.</td>
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<td>2. To emphasize the importance of investment in the future of our world.</td>
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<td>3. To introduce the programme.</td>
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<tr>
<td><strong>IF 7-2</strong></td>
<td>14:05</td>
<td>in memoriam Prof. Helen M.L. Carty</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A. T. Carty; Liverpool/UK (<a href="mailto:owens.catherine.5@gmail.com">owens.catherine.5@gmail.com</a>)</td>
</tr>
<tr>
<td><strong>IF 7-3</strong></td>
<td>14:07</td>
<td>From Women in Focus to Children in Focus</td>
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<tr>
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<td>H. Hricak; New York/US (<a href="mailto:hricak_h@nih.gov">hricak_h@nih.gov</a>)</td>
</tr>
<tr>
<td><strong>IF 7-4</strong></td>
<td>14:12</td>
<td>inspiration behind Children in Focus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B. Brkljac; Zagreb/HR (<a href="mailto:boris@brkljac.com">boris@brkljac.com</a>)</td>
</tr>
<tr>
<td><strong>IF 7-5</strong></td>
<td>14:17</td>
<td>The foetus: from imagination to imaging</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L. E. Derchi; Genoa/IT (<a href="mailto:derchi@unige.it">derchi@unige.it</a>)</td>
</tr>
<tr>
<td><strong>Learning objectives:</strong></td>
<td></td>
<td>1. To learn the status of the unborn child in history.</td>
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<tr>
<td></td>
<td></td>
<td>2. To appreciate the historical understanding of life in utero.</td>
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<tr>
<td></td>
<td></td>
<td>3. To present images from carvings, paintings and illustrations along human history.</td>
</tr>
<tr>
<td><strong>IF 7-6</strong></td>
<td>14:35</td>
<td>The impact of advanced medical intervention on childhood malignancy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>where we are now and why we need to be here</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P. Veys; London/UK (<a href="mailto:pauleveys@gosh.nhs.uk">pauleveys@gosh.nhs.uk</a>)</td>
</tr>
<tr>
<td><strong>Learning objectives:</strong></td>
<td></td>
<td>1. To learn how we have moved on over the decades to more sophisticated, less toxic therapies for cancer treatment in childhood.</td>
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<td>2. To appreciate the importance and human impacts of these advances.</td>
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<td>3. To understand the vital differences we are making with more bespoke treatments and the impact on the individual.</td>
</tr>
<tr>
<td><strong>IF 7-7/IF 7-8</strong></td>
<td>14:53</td>
<td>My personal journey through childhood cancer in pictures: a ten year marathon</td>
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<tr>
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<td>O. Parry; London/UK</td>
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<td>P. Parry; London/UK</td>
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<tr>
<td><strong>Learning objectives:</strong></td>
<td></td>
<td>1. To learn how it feels to be a child with cancer.</td>
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<td>2. To appreciate the personal journey taken over time and the</td>
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<td>consequences to the individual.</td>
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<td>3. To understand the impact of historical therapy on future adult life.</td>
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<tr>
<td>15:11</td>
<td></td>
<td>Panel discussion: Where are we now and what has really changed?</td>
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<thead>
<tr>
<th>Time</th>
<th>Room E</th>
<th>Event</th>
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<tr>
<td>14:00 - 15:30</td>
<td></td>
<td><strong>E³ - Advanced Course: Interactive Teaching</strong></td>
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<tr>
<td><strong>Session for Young (and not so Young) Radiologists</strong></td>
<td></td>
<td><strong>Radiologists</strong></td>
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<tr>
<td><strong>E³ 721a</strong></td>
<td></td>
<td><strong>Errare humanum est</strong></td>
</tr>
<tr>
<td><strong>E³ 721a-1</strong></td>
<td>14:00</td>
<td>A. Errors in chest radiograph</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D. Tack; Braine-L’Alleud/BE (<a href="mailto:denis.tack@skynet.be">denis.tack@skynet.be</a>)</td>
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<tr>
<td><strong>Learning objectives:</strong></td>
<td></td>
<td>1. To learn to recognise ambiguous signs in plain films.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. To learn to avoid the most common pitfalls in reading plain chest films.</td>
</tr>
<tr>
<td><strong>E³ 721a-2</strong></td>
<td>14:45</td>
<td>B. Errors in CT of the chest</td>
</tr>
<tr>
<td></td>
<td></td>
<td>J. Vilar; Valencia/ES (<a href="mailto:vilarsamper@gmail.com">vilarsamper@gmail.com</a>)</td>
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<tr>
<td><strong>Learning objectives:</strong></td>
<td></td>
<td>1. To learn to interpret ambiguous chest CT signs.</td>
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<td></td>
<td>2. To learn to avoid the most common pitfalls in reading chest CT images.</td>
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<tr>
<td>14:00 - 15:30</td>
<td></td>
<td><strong>E³ - ECR Master Class (Neuro)</strong></td>
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<tr>
<td><strong>E³ 726</strong></td>
<td></td>
<td><strong>How to implement MRI neuro advanced techniques at home</strong></td>
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<tr>
<td><strong>E³ 726-1</strong></td>
<td>14:00</td>
<td>A. Practical approach to cerebral perfusion techniques</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H. R. R. Jäger; London/UK (<a href="mailto:hannes.jager@gms.hu">hannes.jager@gms.hu</a>)</td>
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<tr>
<td><strong>Learning objectives:</strong></td>
<td></td>
<td>1. To understand the essentials in MRI perfusion techniques.</td>
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<td>2. To describe how to interpret the data in brain perfusion MRI.</td>
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<td>3. To know the limitations of perfusion MRI studies.</td>
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<tr>
<td><strong>E³ 726-2</strong></td>
<td>14:30</td>
<td>B. How to read spectroscopy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C. Hoffmann; Tel Hashomer/IL (<a href="mailto:chen.hoffmann@sheba.health.gov.il">chen.hoffmann@sheba.health.gov.il</a>)</td>
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<tr>
<td><strong>Learning objectives:</strong></td>
<td></td>
<td>1. To describe the role of 1H spectroscopy in daily practice.</td>
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<td>2. To become familiar with 1H spectroscopic imaging and post</td>
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<td>processing techniques.</td>
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<td>3. To be aware of other MRI spectroscopy techniques e.g. 31P.</td>
</tr>
<tr>
<td><strong>E³ 726-3</strong></td>
<td>15:00</td>
<td>C. How to read diffusion tensor imaging (DTI)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>R. Gasparotti; Brescia/IT (<a href="mailto:roberto.gasparotti@unibs.it">roberto.gasparotti@unibs.it</a>)</td>
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<tr>
<td><strong>Learning objectives:</strong></td>
<td></td>
<td>1. To learn the principals of DTI in neuroradiology.</td>
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<td>2. To appreciate the practical value of DTI in different neurological disorders.</td>
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<td>3. To be familiar with pitfalls of diffusion-weighted imaging (DWI) and DTI - common language with neurosurgeons.</td>
</tr>
</tbody>
</table>
3. To be aware that these guidelines are useful for reviewers and editors.

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.

1. To learn about the concept of different reporting guidelines and how they are adapted to specific types of research.

Session objectives:
1. To understand the relationship between systematic review and meta-analysis.
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
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.

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 24-2 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 learn about 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
How radiologists can help the infertile couple

SF 7b-1 14:00
Chairperson’s introduction

M. Studniarek; Gdansk/PL (mstud@gumed.edu.pl)

Session objective:
1. To learn about infertility: definition, epidemiology, infertility types and mechanisms, patients’ expectations.

SF 7b-2 14:04
Andrology expert’s view on the role of radiology in infertility

D. Jezek; Zagreb/HR (davor.jezek@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. Uberoi; Oxford/UK (raman.uberoi@ouh.nhs.uk)

Learning objectives:
1. To learn the various causes of female infertility.
2. To understand the appropriate use of MRI in assessing infertility.
3. To illustrate uterine and extrauterine conditions impairing fertility.

SF 7b-5 14:59
Interventional radiology in male and female infertility

R. Forstner; Salzburg/AT (r.forstner@salk.at)

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-2 14:05
Cardiac findings in ungated chest CT
K. Nikolaou; Tübingen/DE (Konstantin.Nikolaou@med.uni-tuebingen.de)

Learning objectives:
1. To refresh knowledge surrounding cardiac anatomy and normal variants.
2. To review common pathological cardiac findings.
3. To become familiar with possible relationships between lung and cardiac findings.

SF 7c-3 14:25
Coronary artery disease: how, why, and when a cardiac CT?
R. Vliegenthart; Groningen/NL (tvliegenthart@umcg.nl)

Learning objectives:
1. To discuss the technical aspects of gated cardiac CT.
2. To be familiar with the appropriateness criteria for CT use in cardiac diseases.
3. To understand the most frequent indication to cardiac CT.

SF 7c-4 14:45
CMR: characterising myocardial damage
M. Francone; Rome/IT (marco.francone@uniroma1.it)

Learning objectives:
1. To become familiar with basic MR sequences to detect myocardial damage.
2. To learn about the differential diagnosis of ischemic and non ischemic cardiomyopathies.
3. To recognise the prognostic implications of MRI data.

SF 7c-5 15:00
Acute chest pain with normal coronaries: a clear indication for CMR
M. Gutberlet; Leipzig/DE (matthias.gutberlet@helios-gesundheit.de)

Learning objectives:
1. To review differential diagnosis of acute chest pain.
2. To understand the role of CMR in characterisation of acute presentation and normal invasive coronary angiography.
3. To become familiar with prognostic implications of MRI data in acute settings.

15:15
Panel discussion: The heart is not a black hole in the chest

14:00 - 15:30 Descartes (Room D3)

Genitourinary

RC 707
Prostate cancer management: pushing the diagnostic frontier

RC 707-1 14:00
Chairperson's introduction
O. Ratib; Geneva/CH (osman.ratib@hcuge.ch)

Session objectives:
1. To learn about the state of the art of prostate cancer imaging.
2. To understand how to skip the hurdles of implementing this into European and national prostate cancer guidelines.
3. To learn the next steps in the evolution of imaging of prostate cancer.

RC 707-2 14:05
A. The role of MRI
V. Panebianco; Rome/IT (valeria-panebianco@uniroma1.it)

Learning objectives:
1. To illustrate the evolution of MRI in terms of technical and standardisation improvement.
2. To understand the clinical impact of MRI in the era of the prostate imaging reporting and data system (PI-RADS).
3. To become familiar with the MRI strategies for risk-adapted prostate cancer diagnosis.

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.ihlan@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.
### Session 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).

### 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 7a-6 15:15**
**Multidisciplinary case presentation and discussion**

**G. Ivanac; Zagreb/HR**
(gordana.augustan@gmail.com)

### Session objectives:
1. To raise awareness of the radiological findings and their role in patient preparation.
2. To understand the interactions of known predictive factors, current neoadjuvant/adjuvant treatment options, and prognosis within an interdisciplinary treatment concept.

### 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 translation complications.

**MS 7b-6 15:20**
**Multidisciplinary case presentation and discussion**

**I. G. Lupescu; Bucharest/RO**
(ilupescu@gmail.com)

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<thead>
<tr>
<th>Time</th>
<th>Room</th>
<th>Session</th>
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<tbody>
<tr>
<td>14:00 - 15:30</td>
<td>K</td>
<td>Multidisciplinary Session</td>
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<tr>
<td>14:00</td>
<td>M 2</td>
<td>E³ - Advanced Course: Interactive Teaching Session for Young (and not so Young) Radiologists</td>
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<tr>
<td>14:00</td>
<td>M 3</td>
<td>ESOR Session</td>
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**ESOR**

### Education in research

**Moderators:**
M. Fuchsjäger; Graz/AT  
V. Vilgrain; Clichy/FR

**ESOR-1 14:00**
**Introduction**

**M. Fuchsjäger; Graz/AT**
(michael.fuchsjaeger@medunigraz.at)

### 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-2 14:05**
**ESOR in action 2020**

**V. Vilgrain; Clichy/FR**
(valerie.vilgrain@aphp.fr)

### 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.

**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.
Learning objectives:
1. To describe the anatomical considerations for ultrasonography of the tendons, ligaments and retinaculae 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.

ESOR-4 14:30
The importance of networking in research
G. M. Allen; Oxford/UK (gina_m_allen@btinternet.com)

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
Ž. 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 (maniefaruch@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.
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.avanooijen@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 - 17:00

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. Montvila; Kaunas/LT (montvila.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 (Jeannette.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

16:00 - 17:30 Room N

EuroSafe Imaging Session

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

Moderators:
J. Damilakis; Iraklion/GR
G. Frijia; Paris/FR

EU 8-1 16:00
An overview of the EUCLID project
J. Damilakis; Iraklion/GR (John.Damilakis@med.uoc.gr)

Learning objectives:
1. To understand why clinical DRLs are needed in adult imaging.
2. To learn about the EUCLID methodology of establishing DRLs.
3. To give an overview of the EUCLID results.

EU 8-2 16:15
EUCLID clinical DRLs values in CT and European comparisons
V. Tsapaki; Nea Ionia/GR (virginia@otenet.gr)

Learning objectives:
1. To present EUCLID CT data analysis in the attempt to define EUCLID CT DRLs.
2. To compare with existing clinical CT DRLs.
3. To present the challenges and limitations, as well as methods, to improving surveys for DRLs determination.
Special Focus Session

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 discuss positive and negative examples of services provided to children after reporting their abuse, and examples of the impact of child sexual abuse in some cases.

SF 8a-2 16:05
Liver, pancreatic and splenic incidentalomas
A. Cieszanowski; Warsaw/PL (andrzej.cieszanowski@wum.edu.pl)

Learning objectives:
1. To learn about health services available to survivors of child sexual abuse and awareness programmes currently available to deal with this issue.
2. To appreciate the paradox in law relating to child sexual abuse in India.
3. To discuss potential cultural differences in what is perceived as abuse.

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.

SF 8a-5 16:59
Child sexual abuse in India among children from marginalised backgrounds
R. M. George; Vienna/AT (reena.mary.george@univie.ac.at)

Learning objectives:
1. To present examples of cultural differences in what is perceived as ‘abuse’.
2. To understand the difficulties in appreciation of demographics of child abuse across Europe.
3. To discuss how potential cultural differences can create medical and legal dilemmas in defining child abuse.
4. To discuss the importance of prevention.

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 challenges around EU-BSS uptake and transposition.

C 14-2 16:05
Clinical audit: EU-BSS uptake, the ESR perspective
A. Brady; Cork/IE (adrianbrady@me.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 future direction for the European clinical audit.

C 14-3 16:20
Clinical audit: EU-BSS uptake, the regulator perspective
A. Karoussou-Schreiner; Louxembourg/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 16:02
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?

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@dzu.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@ucl.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.
C 25-3 16:07
Review articles: how to get your work published
F. Zarb; Msida/MT (francis.zarb@um.edu.mt)

Learning objectives:
1. To explore what constitutes a strong review article and appropriate review methodologies.
2. To consider the use of reporting guidelines such as PRISMA and STARD

C 25-4 16:12
The reviewer’s perspective and how to respond
A. England; Manchester/UK (A.England@salford.ac.uk)

Learning objectives:
1. To identify the purpose of peer review and to explain the steps within the peer review process.
2. To understand the qualities of a good review.
3. To learn how best to respond to reviewers’ comments

C 25-5 16:17
Editor-in-chief’s top ten tips for publishing success
J. M. Nightingale; Sheffield/UK (J.Nightingale@shu.ac.uk)

Learning objectives:
1. To discuss reasons why a manuscript may be rejected.
2. To emphasise how common manuscript errors can be avoided.
3. To highlight the author’s responsibilities in promoting their article.

16:25
Open forum discussion

Special Focus Session

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

SF 8b-1 16:00
Chairperson’s introduction
L. Mascaro; Brescia/IT (mascaro@libero.it)

Session objectives:
1. To understand the principles and methods of quantitative MRI modalities that are used to measure tissue microstructure.
2. To highlight the pros and cons of quantitative imaging as compared to weighted imaging.
3. To show the potentials and limitations of the mapping technique for providing sub-voxel metrics for tissue characterisation.
4. To give updates on the role of quantitative MRI in research and routine clinical applications.

SF 8b-2 16:05
T1, T2, and PD: direct mapping or not?
M. J. B. Wamtjes; Linköping/SE (marcel.wamtjes@cvm.liu.se)

Learning objectives:
1. To present current methods for T1, T2, and PD mapping.
2. To understand how mathematical multicomponent analysis of relaxation times can describe complex biophysical models of tissue microstructure.
3. To show how relaxation and PD mapping give novel information related to tissue microstructure at the subvoxel level.

SF 8b-3 16:28
Bringing quantitative magnetic susceptibility mapping into the clinic
C. Langkammer; Graz/AT

Learning objectives:
1. To present current methods for quantitative susceptibility mapping (QSM).
2. To understand which biophysical tissue properties can affects magnetic susceptibility, and to identify which tissues benefit from a QSM analysis.
3. To highlight the potentials of QSM to assess tissue function and disease, and to describe the actual limits of the technique as a standard tool for clinical diagnostic imaging.

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
Meets Bb-5 16:41
Artificial intelligence (AI) and the medical radiation profession: how our advocacy must inform future practice
A. Murphy; Vancouver/CA (aandrewfmurphy@gmail.com)

Learning objectives:
1. To learn about the 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.

PC 8-6 16:59
Quality, safety and peer review: a Canadian experience
S. DeColle; 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.
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 the choice of the most suited 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.

16:00 - 17:30 Room M 2

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.

16:00 - 17:30 Room M 1

E³ 818-2 16:06
A. Acute stroke: CT and MRI findings
K. Katulska; Poznan/PL (katarzyna_katulska@op.pl)

Learning objectives:
1. To understand the role of CT and 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 818-4 16:48  
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.

E³ 818-5 17:09  
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.

16:00 - 17:30  Room on demand  
Room C or Room M 3

Oncologic Imaging  
RC 816  
Role of imaging in cancer of unknown primary (CUP)  
Moderator:  
N. I. Traikova; Plovdiv/BG

RC 816-1 16:00  
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.

RC 816-2 16:22  
B. MRI with diffusion weighted imaging (DWI) and dynamic contrast-enhancement (DCE)  
A. R. R. Padhani; London/UK (anwar.padhani@stricklandscanner.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.

RC 816-3 16:45  
C. Nuclear medicine: (PET/CT, PET/MRI, novel tracers)  
T. Baeuerle; Erlangen/DE (tobias.baueerle@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.

RC 816-4 17:07  
D. Unknown primary: emerging challenges for imaging and the importance of integrated diagnostics  
H. Hricak; New York/US

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.

16:00 - 17:30  Room M 4

E³ - Advanced Course: Interactive Teaching  
Session for Young (and not so Young) Radiologists  
E³ 821  
Imaging of the brain  
E³ 821-1 16:00  
A. Stroke mimics  
M. M. Thurnher; Vienna/AT (majda.thurnher@meduniwien.ac.at)

Learning objectives:  
1. To become familiar with the different entities that can mimic a stroke.  
2. To know the usefulness of perfusion studies in the differential diagnosis.

E³ 821-2 16:45  
B. Acquired toxic-metabolic encephalopathies  
M. Spero; Zagreb/HR (martina.spero@gmail.com)

Learning objectives:  
1. To review the most common causes.  
2. To learn the MRI and CT appearances of these lesions.

16:00 - 17:30  Room M 5

E³ - Advanced Course: Artificial Intelligence  
E³ 820  
Making visible the invisible: pushing the boundaries in multimodality radiomic quantification  
Moderator:  
N. deSouza; Surrey/UK

E³ 820-1 16:00  
Chairperson’s introduction  
L. Fournier; Paris/FR

Session objectives:  
1. To introduce the subject of radiomic analyses across imaging modalities.  
2. To highlight the potentials and limitations to be discussed by speakers.  
3. To introduce the speakers.

E³ 820-2 16:05  
A. Unravelling the mysteries of the black box: does radiomics enhance or complement biomarker data?  
A. Jimenez-Pastor; Valencia/ES (anajimenez@iquibim.com)

Learning objectives:  
1. To learn what radiomic analyses add to current biomarker evaluation.  
2. To appreciate the limitations and pitfalls of such analyses.  
3. To understand the most robust statistical methods for carrying out the analyses.

E³ 820-3 16:28  
B. Working across modalities: how do we progress from redundant to relevant data?  
H. C. Woodruff; Maastricht/NL (h.woodruff@maastrichtuniversity.nl)

Learning objectives:  
1. To learn how radiomic outputs differ across modalities.  
2. To appreciate the variability of the method and how to ensure data is robust.  
3. To understand the relevance of the findings.
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.

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.
**E³ - 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-3 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.

09:48  
Panel discussion: New trends in hybrid imaging

**08:30 - 10:00**  
Special Focus Session

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

**SF 9a-1 08:30**  
Chairperson’s introduction  
T. Bever; Vienna/AUT

**Session objectives:**  
1. To provide an overview of non-FDG PET/CT imaging.  
2. To learn about the range of PET tracers that are in widespread use.  
3. To consider the potential clinical advantages of these tracers.

**SF 9a-2 08:36**  
Prostate specific membrane antigen (PSMA) hybrid imaging in guiding prostate cancer therapy  
C. C. Cryan; Munich/DE (clemens.cryan@med.uni-muenchen.de)

**Learning objectives:**  
1. To understand the biology of PSMA.  
2. To consider different approaches to imaging PSMA and its use in therapy.  
3. To learn about current clinical applications for guiding prostate therapy.

**SF 9a-3 09:54**  
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.  
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09:48  
Panel discussion: New trends in hybrid imaging

**08:30 - 10:00**  
Room X

**Session objectives:**  
1. To provide an overview of non-FDG PET/CT imaging.  
2. To learn about the range of PET tracers that are in widespread use.  
3. To consider the potential clinical advantages of these tracers.

**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.
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.

Friday

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. Hjern; 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 spectrum of findings on imaging in migrant and refugee children.
3. To discuss new diagnostic and practical challenges for radiologists.

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 discuss the limitations of the imaging methods for diagnosis.
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

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. Frija, Paris/FR (guillaume.frija@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@medunigrat.at)

Session objectives:
1. To appreciate tricks for targeting lesions in complicated locations.
2. To learn about the technical aspects of stereotactic biopsy.
3. To understand the importance of marker clip placement post-biopsy.

SF 9c-2 08:35
Screening with tomosynthesis
S. Zackrisson, Malmo/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 (athanavourtsi@yahoo.gr)

Learning objectives:
1. To recognise artefacts specific to automated breast ultrasound (ABUS).
2. To appreciate the value of multplanar reconstruction and the coronal spiculation pattern.
3. To gain insight into possible indications for ABUS.

SF 9c-4 08:47
Complex cystic and solid lesions
P. Kapetas, Vienna/AT (panagiotis.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-6 08:59
Imaging the axilla
A. O. Oktay Alifatli, 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-7 09:05
Contrast-enhanced spectral mammography
C. S. Balleyguier, 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-8 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 about the technical aspects of stereotactic biopsy.
3. To understand the importance of marker clip placement post-biopsy.

Questions and discussion

SF 9c-10 09:23
US-guided biopsy
G. Ivanac, Zagreb/HR (goran.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 (r.mann@rad.umcn.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 (boris@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 (viera.lehotska@ouz.sk)
M. Marolt Music, Ljubljana/SI (mmusic@onko-i.si)

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
Emboliensation techniques: tips and tricks

C 26-1 09:00
Chairperson's introduction
T. Kroencke; Augsburg/DE

Learning 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
Emboliensation 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
Emboliensation for endoleaks post endovascular aneurysm repair (EVAR)
R. Morgan; London/UK

Learning objectives:
1. To appreciate the indications for endovascular repair.
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 emboliensation
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 emboliensation 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. Tsiapali; Nea Ionia/GR (vinijana@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 the strategies to define attention levels and possible intervention thresholds.
2. To understand how to correlate cumulative dose indices with cumulative risks.
3. To evaluate which procedures and clinical pathways involve high cumulative risks.

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 learn about imaging derived biomarkers to predict the outcome of coronary revascularisation and to assess prognosis of patients with coronary artery 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 become familiar with imaging techniques to assess ischaemic myocardial disease.
3. 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?

**08:30 - 10:00**

**Postgraduate Educational Programme**

**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:**
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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?

**08:30 - 10:00**
Descartes (Room D3)

**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 (akataden@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 (rutemartinssantos@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
Preclinical 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 preclinical and clinical application of SPCCT.
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.
1. To explain the pathophysiology of degenerative changes in the spine.
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.

**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@kswch.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

**ECR 2020 - Advanced Course: Hot Topics in GU Cancer**

**E³ 922-2** 08:30
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.

**E³ 922-1** 08:30
Chairperson’s introduction
A. R. Padhani; London/UK (anwar.padhani@stricklands scanner.org.uk)
10:30 - 11:00  Forum (Room A)

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  Room B

E³ - The Beauty of Basic Knowledge: Breast

E³ 24C
Basics of breast MRI
Moderators:
J. Camps Herrero; Valencia/ES
K. Kinkel; Chêne-Bougeries/CH

E³ 24C-1 12:45
When is breast MRI indicated and what protocol to use?
R. M. Mann; Nijmegen/NL (r.mann@rad.umcn.nl)

Learning objectives:
1. To know the guidelines for accepted indications of breast MRI.
2. To learn the basic protocol for screening and diagnostic breast MRI.

E³ 24C-2 13:15
How to read breast MRI
F. Pediconi; Rome/IT (federica.pediconi@uniroma1.it)

Learning objectives:
1. To understand morphological and kinetic findings.
2. To know the value of diffusion-weighted imaging.
3. To learn about reporting by using the breast imaging reporting and data system (BIRADS).

12:45 - 13:45  Room C

E³ - The Beauty of Basic Knowledge: Pancreas

E³ 25C
Cystic neoplasms
Moderator:
T. Lauenstein; Düsseldorf/DE

E³ 25C-1 12:45
Intraductal papillary neoplasms
S. Skehan; Dublin/IE

Learning objectives:
1. To learn about the classification of cystic pancreatic neoplasms.
2. To appreciate the classification of intraductal papillary mucinous neoplasms (IPMNs).
3. To understand the diagnostic imaging findings of IPMNs.

E³ 25C-2 13:15
Other cystic pancreatic neoplasms
R. M. Pozzi-Mucelli; Stockholm/SE (raffaella.pozzi-mucelli@sl.se)

Learning objectives:
1. To understand diagnostic imaging findings of other cystic neoplasms.
2. To appreciate differential diagnosis of pancreatic cystic lesions.
3. To understand the follow-up of cystic pancreatic neoplasms.

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 (r.loose@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
**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.

**EDiR Session**

**EDiR 3**
The Essential Guide by Springer and other new tools to prepare the examination

**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.

**RC 1102**
State of the art and recent developments in breast ultrasound

**RC 1102-1** 14:00
A. Breast ultrasound: tell me the value of coloured images
C. S. Balleyguier; 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 (athinavourtsi@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. Banerjee; Geneva/CH (banerjeea@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)

EFOMPF 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 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.

**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.
**Postgraduate Educational Programme**

**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@gmail.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 (trimbolirm@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 describe the example of being an EDiR holder.
4. To present the assessment cases available in the app.
5. To show the new CARE 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 (alexandresolerp@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 (wvannlanken@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

16:00 - 17:00
Coffee & Talk 1

16:00 - 17:30
EuroSafe Imaging Session

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 (peter.noel@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 (jmgo@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.
17:20
Panel discussion: Which role does quantitative single- and multi-energy computed tomography play in daily practice, and is it compatible with dose reduction?

16:00 - 17:30
Room O

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; Gronigen/NL (a.a.e.verhagen@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 (olestien.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.

17:05
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 - 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
J. Blazic; Belgrade/RS (ivanablazic@yahoo.com)

Learning objectives:
1. To understand the imaging technique.
2. To identify the key imaging findings.

16:00 - 17:30 Room F1

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

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.

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.

16:00 - 17:00 Coffee & Talk 3

C 28
Value in radiology: in the eye of the beholder

C 28-1 16:00
Chairperson’s introduction
M. Fuchsjäger; Graz/AT (michael.fuchsjaeger@meduni graz.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; Helioco/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.fuchsjaeger@meduni graz.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

Meets 12
A guided tour of Slovenia through the modalities

Presiding:
J. McNulty; Dublin/IE
U. Gačnik; Ljubljana/SI

Meets 12-1 16:00
Session introduction
J. McNulty; Dublin/IE (Jonathan.mcnulty@ucd.ie)

Meets 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.

Meets 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.

Meets 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

Meets 12-6 16:47
Protocol designing and optimisation in cardiac CT
J. Mišić; 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.

Meets 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. Trianni; Udine/IT

**EF 12-2** 16:00
Chairperson's introduction
M. Kortesniemi; Hus/FI (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. Kaix; Boston, MA/US (MKALBA@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.

**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.

**MS 12a-2** 16:15
The need for a standardised approach to US screening for DDH
K. G. Chlapoutakis; Iraklion/GR (kgchlapoutakis@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 orthopaedic perspective on who, when and how to screen for developmental dysplasia of the hip.
2. To describe 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?

**MS 12b**
Multidisciplinary team for epilepsy

**MS 12b-1** 16:00
Chairperson's introduction
P. Demaerel; Leuven/BE

**Multidisciplinary Session**

**MS 12b**
Multidisciplinary team for epilepsy

**MS 12b-1** 16:00
Chairperson's introduction
P. Demaerel; Leuven/BE

**Session objectives:**
1. To review the clinical presentation of epilepsy.
2. To describe localising information in seizure semiology and EEG.
3. To review the role of imaging in the diagnosis and treatment planning of epilepsy.

**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. Coenen; Freiburg/DE (volker.coenen@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.
### 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

<table>
<thead>
<tr>
<th>16:00 - 17:30</th>
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<tr>
<td><strong>E³ - Advanced Course: How to Improve Your Expertise in Cardiothoracic Imaging</strong></td>
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<td><strong>E³ 1219</strong></td>
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<td><strong>Infections of the chest</strong></td>
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| **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** 16:34  
B. Tuberculosis (TB)  
I. E. Tyurin; Moscow/RU (igortyurin@gmail.com) |

**Learning objectives:**
1. To review the role and limitations of chest-x ray for diagnosing community-acquired pneumonia.
2. To learn about pulmonary infections in immunocompromised hosts.
3. To become familiar with CT signs suggesting fungal infection.

| **E³ 1219-4** 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.

### 16:00 - 17:30 Room M 1

**ESHi(MT) Session**

**ESHi(MT)**
The importance of identifying technical errors in hybrid imaging: pitfalls and artefacts in PET/CT and PET/MRI

**Moderators:**
M. D’Anastasi; Msida/MT  
J. Rübenthaler; Munich/DE

**ESHi(MT)-1 16:00**  
Artefacts on PET/CT and PET/MRI  
I. Rausch; Vienna/AT

**Learning objectives:**
1. To understand image distortions, artefacts, and bias from methodological pitfalls in PET/CT and PET/MR imaging.
2. To learn about possible solutions to frequent image distortions.
3. To understand the methodological limitations of PET/CT and PET/MRI.

**ESHi(MT)-2 16:23**  
Pitfalls in FDG-PET/CT  
J. L. Vercher Conejero; Barcelona/ES (jvercher@hotmail.com)

**Learning objectives:**
1. To become familiar with the different types of pitfalls in FDG-PET/CT imaging and how to minimise them.
2. To understand the strengths and limitations of FDG-PET/CT as a hybrid imaging modality.
3. To learn about the correct patient preparation, relevant patient history, and data and study acquisition.

**ESHi(MT)-3 16:46**  
Beyond FDG: pitfalls and artefacts  
C. C. Cyran; Munich/DE (clemens.cyran@med.uni-muenchen.de)

**Learning objectives:**
1. To learn about the most frequent pitfalls and artefacts of PET tracers beyond FDG.
2. To appreciate the most important risks of misinterpretation with PET tracers beyond FDG.
3. To understand the physiological background of pitfalls and artefacts when imaging with PET tracers beyond FDG.

17:09  
Panel discussion: Clinical relevance of misinterpreting pitfalls and artefacts in hybrid imaging. How can we augment diagnostic confidence in hybrid imaging?

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<th>16:00 - 17:30</th>
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<tr>
<td><strong>RTF - Radiology Trainees Forum</strong></td>
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<td><strong>TF</strong></td>
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<td><strong>Highlighted Lectures</strong></td>
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**Moderators:**
M. Marolt 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.
TF-3 17:00
Bone lesions: an integrated approach
V. Cassar-Pullicino; Oswestry/UK (Victor.Pullicino@nhs.net)

Learning objectives:
1. To describe typical features of normal bone marrow.
2. To understand normal bone marrow transformation over maturation.
3. To get familiar with MRI pattern of malignant bone marrow lesions.
4. To get familiar with MRI pattern of benign bone marrow lesions.
5. To get familiar with bone marrow MRI pattern as a consequence of iatrogenic (radiotherapy etc.) or metabolic (bone marrow transformation etc.).

16:00 - 17:30 Room M 4

Transatlantic Course of ESR and RSNA (Radiological Society of North America): Stroke Imaging and Endovascular Treatment: Now and the Future

TC 1228
Current status of stroke workup and treatment
Moderators:
R. Uberoi; Oxford/UK
A. Vagal; Cincinnati, OH/US

TC 1228-1 16:00
A. Current status of endovascular management of acute ischaemic stroke: evidence and guidelines
R. Uberoi; Oxford/UK (raman.uberoi@ouh.nhs.uk)

Learning objectives:
1. To learn about current evidence of endovascular treatment in acute ischaemic stroke.
2. To become familiar with evidence-based guidelines (AHA/ASA and ESO/ESMINT) in stroke treatment.

TC 1228-2 16:25
B. CT-based evaluation of acute stroke: advantages and challenges
A. Vagal; Cincinnati, OH/US (vagala@ucmail.uc.edu)

Learning objectives:
1. To learn about the advantages and challenges of CT-based stroke imaging workup.
2. To become familiar with the pitfalls of CT perfusion imaging.

TC 1228-3 16:50
C. MRI-based evaluation of acute stroke: advantages and challenges
M. Wintermark; Stanford, CA/US

Learning objectives:
1. To learn about the advantages of MRI-based stroke imaging workup.
2. To become familiar with the challenges of MRI-based stroke imaging workup.

17:15
Panel discussion: Strategy for acute stroke imaging and intervention

16:00 - 17:30 Room M 5

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. Rousset; Pierre-Bénite/FR (roussetpascal@gmail.com)

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 about the concept and technique of texture analysis.
2. To be familiar with the key associations between biology and texture features.
3. To be familiar with the potential added value of texture analysis in image interpretation.

Transatlantic Course of ESR and RSNA (Radiological Society of North America): Stroke Imaging and Endovascular Treatment: Now and the Future

Special Focus Session

SF 12
Update in head and neck cancer imaging

SF 12-1 16:00
Chairperson's introduction
M. Ravanelli; Brescia/IT

Session objectives:
1. To learn about the role of functional imaging in the diagnosis, treatment planning, and evaluation of head and neck cancer.
2. To become acquainted with the technique, current status, and future directions of quantitative imaging analysis in head and neck oncology.

SF 12-2 16:05
Functional imaging for characterisation of primary tumours
M. de Win; Amsterdam/NL (m.m.dewin@amsterdamumc.nl)

Learning objectives:
1. To review functional imaging techniques applied in head and neck oncology.
2. To gain an understanding of the underlying biologic phenomena represented by the different techniques.
3. To appreciate their usefulness for histopathologic differentiation of a primary head and neck tumour.

SF 12-3 16:30
Functional imaging for treatment prediction and treatment monitoring
M. Becker; Geneva/CH

Learning objectives:
1. To understand the role of functional imaging in treatment planning of head and neck cancers.
2. To become familiar with the role of functional imaging in the evaluation of therapeutic response.
3. To recognise the challenges of the execution and interpretation of hybrid imaging, and to learn about solutions.
SF 12-4 16:55
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.

17:20
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 (mariamanuela.franca@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. Wijnen; Utrecht/NL (jwijnen@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.

**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).

**Open forum discussion**
**Postgraduate Educational Programme**

**08:30 - 10:00**  
**Room N**

**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?

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**08:30 - 10:00**  
**Room O**

**E³ - ECR Master Class (Breast)**

**E³ 1326a**

**Artificial intelligence (AI) in breast imaging: potential perspectives and (unjustified) fears**

**Moderator:**
T. H. Helbich; 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-Nagaggia; 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.

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**08:30 - 10:00**  
**Studio 2020**

**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 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 13-3 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.
<table>
<thead>
<tr>
<th>Session</th>
<th>Time</th>
<th>Title</th>
<th>Location</th>
<th>Speaker</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF 13-4</td>
<td>09:10</td>
<td>Inflicted abdominal injury</td>
<td></td>
<td>M. Raissaki; Iraklion/GR (<a href="mailto:mraissaki@yahoo.gr">mraissaki@yahoo.gr</a>)</td>
<td></td>
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<tr>
<td>Learning objectives:</td>
<td>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.</td>
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<tr>
<td>SF 13-5</td>
<td>09:28</td>
<td>Testimony in court</td>
<td></td>
<td>A. C. Offiah; Sheffield/UK (<a href="mailto:amaka.offiah@nhs.net">amaka.offiah@nhs.net</a>)</td>
<td></td>
</tr>
<tr>
<td>Learning objectives:</td>
<td>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.</td>
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<tr>
<td>09:46</td>
<td>Panel discussion: Imaging in non-accidental injury: the role of the paediatric radiologist</td>
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<tr>
<td>08:30 - 09:30</td>
<td>Coffee &amp; Talk 2</td>
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<tr>
<td>Coffee &amp; Talk (open forum) Session</td>
<td>Organised by EuroSafe Imaging</td>
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<tr>
<td>C 17</td>
<td>International Society of Radiology (ISR) call for action on quality and safety</td>
<td></td>
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<tr>
<td>Moderators:</td>
<td>D. P. Frush; Durham/US  G. Frija; Paris/FR</td>
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<tr>
<td>C 17-1</td>
<td>08:30</td>
<td>Introduction to the concept of the International Atomic Energy Agency (IAEA) Bonn Call for Action</td>
<td></td>
<td>O. Holmberg; Vienna/AT (<a href="mailto:O.Holmberg@iaea.org">O.Holmberg@iaea.org</a>)</td>
<td></td>
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<tr>
<td>Learning objectives:</td>
<td>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.</td>
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<tr>
<td>C 17-2</td>
<td>08:40</td>
<td>The World Health Organisation (WHO) vision</td>
<td></td>
<td>M. D. Perez; Geneva/CH (<a href="mailto:perezm@who.int">perezm@who.int</a>)</td>
<td></td>
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<tr>
<td>Learning objectives:</td>
<td>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.</td>
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<tr>
<td>C 17-3</td>
<td>08:50</td>
<td>The Middle East vision</td>
<td></td>
<td>S. Hagi; Jeddah/SA (<a href="mailto:sarabhagi@gmail.com">sarabhagi@gmail.com</a>)</td>
<td></td>
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<tr>
<td>Learning objectives:</td>
<td>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.</td>
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<tr>
<td>C 17-4</td>
<td>09:00</td>
<td>The African vision</td>
<td></td>
<td>T. El-Diasty; Mansoura/EG (<a href="mailto:teldiasty@hotmail.com">teldiasty@hotmail.com</a>)</td>
<td></td>
</tr>
<tr>
<td>Learning objectives:</td>
<td>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 AFROSIAE.</td>
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<tr>
<td>C 17-5</td>
<td>09:10</td>
<td>The Chinese vision</td>
<td></td>
<td>E. Y. Jim; Beijing/CN</td>
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</tr>
<tr>
<td>Learning objectives:</td>
<td>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.</td>
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<td>09:20</td>
<td>Open forum discussion</td>
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<tr>
<td>C 17-4</td>
<td>09:00</td>
<td>The African vision</td>
<td></td>
<td>T. El-Diasty; Mansoura/EG (<a href="mailto:teldiasty@hotmail.com">teldiasty@hotmail.com</a>)</td>
<td></td>
</tr>
<tr>
<td>Learning objectives:</td>
<td>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 AFROSIAE.</td>
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<tr>
<td>E 3 1321</td>
<td></td>
<td>Musculoskeletal radiology: arthropathies</td>
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<tr>
<td>E 3 1321-1</td>
<td>08:30</td>
<td>A. Extremities</td>
<td></td>
<td>Ü. Aydingöz; Ankara/TR (<a href="mailto:ustunaydingoz@yahoo.com">ustunaydingoz@yahoo.com</a>)</td>
<td></td>
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<tr>
<td>Learning objectives:</td>
<td>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.</td>
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<tr>
<td>E 3 1321-2</td>
<td>09:15</td>
<td>B. The axial skeleton</td>
<td></td>
<td>A. H. Karantanas; Iraklion/GR (<a href="mailto:akarantanas@gmail.com">akarantanas@gmail.com</a>)</td>
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<tr>
<td>Learning objectives:</td>
<td>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.</td>
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<tr>
<td>E 3 1326b</td>
<td></td>
<td>Autoimmune thoracic diseases</td>
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<tr>
<td>E 3 1326b-1</td>
<td>08:30</td>
<td>A. Relapsing polychondritis</td>
<td></td>
<td>A.-L. Brun; Suresnes/FR (<a href="mailto:annelaure.brun@gmail.com">annelaure.brun@gmail.com</a>)</td>
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<tr>
<td>Learning objectives:</td>
<td>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.</td>
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</tbody>
</table>
Learning objectives:
1. To understand why it is important to target medical students.
2. To understand which imaging modalities are best suited for detection of foreign bodies in different clinical scenarios.
3. To learn their proper positioning, and the early signs of postoperative complications.
4. To be familiar with imaging signs of incorrect implementation of neurosurgical, and orthopaedic devices and materials.

C 29-3 09:13
Engaging undergraduates: lessons learnt from a young teacher’s perspective
A. Svare; Riga/LV (atis.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
J. B. C. M. Puylaert; The Hague/NL (dr.jbcmpuylaert@wxs.nl)

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 highlight 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.jbcmpuylaert@wxs.nl)

Learning objectives:
1. To be 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 (henrikleonhardt@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; Raamstondkveer/NL (peter@pi-medical.nl)

Learning objectives:
1. To understand the advantages and disadvantages of merging radiology and nuclear medicine departments.
2. To understand the history of hybrid imaging.
3. 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 importance 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 risk assessment and evaluation.
3. To learn about the challenges and import role for radiographers.

09:49
Panel discussion

Professional Challenges Session

PC 13
Equipment purchasing decisions:

PC 13-1 08:30
Chairperson’s introduction
A. Trianni; Udine/IT (annalisa.trianni@asuiud.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 the different types of technical specifications 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?
New Horizons Session

NH 13
Alzheimer's disease and neurodegeneration: visualising the invisible

NH 13-1 08:30
Chairperson's introduction
S. Haller; Geneva/CH (sven.haller@ime.com)

Session 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.

NH 13-2 08:35
Visualising the human glymphatic system
G. A. Ringstad; Oslo/NO (geirringstad@yahoo.no)

Learning 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.

NH 13-3 08:53
PET as part of the biomarker toolbox for early clinical diagnosis of Alzheimer's disease
I. Arbizu; Pamplona/ES (iarbizu@unaves.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.

NH 13-4 09:11
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.

NH 13-5 09:29
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.

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?

E³ - European Diploma Prep Session

E³ 1323
Urogenital

E³ 1323-1 08:30
Chairperson's introduction
V. Løgager; Herlev/DK (Vibeke.Loegager@regionh.dk)

Session objectives:
1. To become familiar with the imaging presentation of common neoplastic and infectious disorders of the kidneys.
2. To understand the typical imaging features of obstructive uropathy and neoplastic disorders of the ureter and bladder.
3. To understand the imaging presentation of benign and malignant disorders of the prostate.

E³ 1323-2 08:36
A. Renal and adrenal imaging
N. Grenier; Bordeaux/FR (nicolas.grenier@chu-bordeaux.fr)

Learning objectives:
1. To describe the normal imaging anatomy and variants of the kidney and the adrenal glands.
2. To understand the imaging features of benign and malignant tumours of the kidneys.
3. To describe imaging features of benign and malignant tumours of the adrenal glands.
4. To explain the imaging features of infectious disorders of the kidneys.

E³ 1323-3 09:04
B. Imaging of the ureter and bladder
M. Secil; Izmir/TR (mustafa.secil@deu.edu.tr)

Learning objectives:
1. To explain the imaging anatomy and variants of the ureter and bladder.
2. To understand the diagnostic evaluation and imaging features of obstructive uropathy.
3. To describe the imaging features of benign and malignant tumours of the ureter and bladder.

E³ 1323-4 09:32
C. Prostate imaging
H. C. Thoeny; Fribourg/CH (Harriet.thoeny@h-fch.ch)

Learning objectives:
1. To explain the prostate imaging reporting and data system (PIRADS) in prostate imaging.
2. To describe the imaging features of benign prostatic hypertrophy.
3. To understand the imaging features of prostate cancer.
4. To describe the imaging features of inflammatory changes of the prostate.

E³ - Advanced Course: How to Improve Your Expertise in Cardiothoracic Imaging

E³ 1319
Cardiovascular imaging in pregnancy

E³ 1319-1 08:30
Chairperson's introduction
J.-N. Dacher; Rouen/FR (jean-nicolas.dacher@chu-rouen.fr)

Session objectives:
1. To learn about risk factors, incidence, and outcomes of acute cardiovascular events during pregnancy.
2. To learn how to adapt CT acquisition protocol during pregnancy.
3. To become familiar with alternative imaging techniques.
To understand the principle of CT derived fractional flow reserve (CT FFR).

Learning objectives:
1. To become familiar with the interpretation of CT perfusion results.
2. To understand the opportunities of combining functional and morphological information by adding perfusion to cardiac CT.
3. To become familiar with alternative imaging techniques.

E3 1319-4
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.

RC 1303
New techniques in cardiac CT: game changers or money makers?

RC 1303-2
A. Pulmonary embolism: optimising patient’s selection and radiation protection
C. Loewe; Vienna/AT (christian.loewe@meduniwien.ac.at)

Learning 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 1303-3
B. Acute aortic disease in pregnancy
R. P. J. Budd; Rotterdam/NL (tbudd@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.

TC 1328
Practical stroke imaging and mimics

Moderators:
J.-P. Pruvo; Lille/FR
A. Vagel; Cincinnati, OH/US

TC 1328-1
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
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.

E3 1322
Tumour relapse in gynaecological cancer

E3 1322-1
Chairperson’s introduction
S. Hougaret; Montpellier/FRA

E3 1322-2
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
B. Planning exenterative surgery
H. A. H. Vargas; New York, NY/US (christian.loewe@meduniwien.ac.at)

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. Clevert; Munich/DE (Dirk.Clevert@med.uni-muenchen.de)
P. S. Sidhu; London/UK (paulsridhu@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 characterisation.

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 (borgalexandra@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 learn how AI is currently used in radiology to generate more effective outcomes.
2. To understand how AI will transform clinical practice for radiologists in the next few decades.
3. To identify best practices for bridging the gap between radiologist and patient due to technological developments.

RC 1510
Imaging of forgotten small joints
Moderator:
P. N. M. Tyrrell; Oswestry/UK

RC 1510-1 14:00
A. Sterno-clavicular joints: from trauma to inflammation
A.-G. Jurik; Aarhus/DK (jurik@dadi.net.dk)

Learning objectives:
1. To explain the pathological conditions that involve the sterno-clavicular joints.
2. To describe the imaging findings of abnormalities that involve the sterno-clavicular joints.

RC 1510-2 14:30
B. Symphysis pubis and its surroundings
A. Kassarian; Pozuelo de Alarcón/ES (akassarian@gmail.com)

Learning objectives:
1. To explain the pathological conditions that involve the symphysis pubis and its surroundings.
2. To describe the imaging findings of abnormalities that involve the symphysis pubis and its surroundings.

RC 1510-3 15:00
C. Proximal tibio-fibular joint: a cause for lateral knee pain
A. Cotten; Lille/FR (anne.cotten@chru-lille.fr)

Learning objectives:
1. To explain the pathological conditions that involve the proximal tibio-fibular joint.
2. To describe the imaging findings of abnormalities that involve the proximal tibio-fibular joint.

PA 4 14:20
Managing expectations for a patient-centred application of AI in radiology
E. Briers; Brussels/BE (erikbriers@telenet.be)

Learning objectives:
1. To understand what benefits patients expect from introducing AI in radiology.
2. To demonstrate how patients can contribute to better outcomes through shared-decision making and active involvement in utilising AI.
3. To learn how patients can be encouraged to co-develop AI in radiology that is patient-centred and adapted to patient expectations.

ESR Patient Advisory Group (ESR-PAG)

PA Artificial intelligence (AI) in radiology: meeting expectations and benefiting outcomes

PA-1/PA-2 14:00
Chairpersons’ introduction
B. Bauer; Abensberg/DE
N. I. Traikova; Plovdiv/BG (nikoletatraikova@gmail.com)

Session objectives:
1. To understand how patients can benefit from the application of AI in radiology.
2. To learn which management changes the introduction of AI in radiology triggers for professionals in clinical practice.
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.

PA-3 14:05
The untapped potential of AI in radiology
J. A. Brink; Boston, MA/US

Learning objectives:
1. To learn how AI is currently used in radiology to generate more effective outcomes.
2. To understand how AI will transform clinical practice for radiologists in the next few decades.
3. To identify best practices for bridging the gap between radiologist and patient due to technological developments.

PA-4 14:20
Managing expectations for a patient-centred application of AI in radiology
E. Briers; Brussels/BE (erikbriers@telenet.be)

Learning objectives:
1. To understand what benefits patients expect from introducing AI in radiology.
2. To demonstrate how patients can contribute to better outcomes through shared-decision making and active involvement in utilising AI.
3. To learn how patients can be encouraged to co-develop AI in radiology that is patient-centred and adapted to patient expectations.

PA-5 14:35
A patient perspective on data privacy in AI
C. Isaacs; Woking, UK (chrisisaacs85@gmail.com)

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 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.

PA-6 14:50
Putting ethics first: key questions concerning AI in radiology
A. Brady; Cork/IE (adrianbrady@me.com)

Learning objectives:
1. To understand which ethical implications accompany the introduction of AI in radiology.
2. To learn about practical solutions to uphold the highest ethical standards in radiology.
3. To share best practices of collaboration between patients and radiologists in developing guidelines and ethical standards.

PA-7 15:05
Data sets for training and validation of AI tools
L. Marti-Bonmati; Valencia/ES (Luis.Marti@us.es)

Learning objectives:
1. To learn about the relevance of training for AI development.
2. To appreciate the opportunities of collaborative developments of data sets for training.
3. To understand the need for validation of AI tools.

Panel discussion: How to embed AI in radiology to the benefit of a patient-centred approach

Coffee & Talk (open forum) Session
Organised by ESOR

C 8 ESOR one-year fellowship

C 8-1 14:00
Chairperson’s introduction
R. G. H. Beets-Tan; Amsterdam/NL (r.beetstan@nki.nl)

Session objectives:
1. To understand the goal of a one year ESOR research fellowship and to learn about the expectations.
2. To know how this fellowship could help you boost your career.

C 8-2/C 8-3 14:05
Why should you apply for a one-year fellowship?
T. D. L. Nguyen-Kim; Zurich/CH (thidanlinh.nguyen@usz.ch)
E. K. Hong; Seoul/KR (amyh0803@gmail.com)

Learning objectives:
1. To learn from their experiences during their visit to the centre.
2. To know how it improved their scientific skills.
3. To learn how their fellowship had an impact on their academic career.

Open forum discussion
14:00 - 15:30 Room N

Breast

RC 1502
Interventional breast imaging: the increasing role of the radiologist
Moderator:
C. Kurtz; Lucerne/CH

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 identify factors that affect success.

14:00 - 15:30 Room O

ESTI Session: Lung Cancer Screening Certification Programme

ESTI
Lung nodule management: case-based session

ESTI-4 14:00
Chairperson’s 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 nodes 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.

14:00 - 15:00 Coffee & Talk 2

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 Call for Action relevant for ArabSafe?
2. 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 Call for Action.
2. To outline 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, including the results and constraints.
3. To discuss 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
O. Husseiny Salama; Cairo/EG (ordinahusseiny@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.
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
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
### Postgraduate Educational Programme

**Saturday**

**Meets 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.

**14:30 - 15:30 Coffee & Talk 3**

**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. 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 shortages.  
2. To discuss ISRRT's collaborative efforts and strategies, submitted to WHO, to counter these shortages.  
3. To discuss the ISRRRT 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)**

**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 (alistairmackenzie@nhs.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?

14:00 - 15:30 Descartes (Room D3)

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.

14:00 - 15:30 Room G

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
F. Papadaki; Iraklion/GR (fpapada@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.
Learning objectives:
1. To understand the current controversial mechanism of posterior reversible encephalopathy syndrome (PRES).
2. To understand therapeutic and prognostic implications of PRES and reversible cerebral vasogenic oedema (RCVOS) diagnosis.
3. To appreciate imaging features of PRES, RCVOS, and their differentials.

Learning objectives:
1. To become familiar with the causes and imaging presentations of myocarditis.
2. To understand the diagnostic evaluation and imaging presentation of ischaemic heart disease.
3. To describe the diagnostic evaluation and imaging presentation of pericardial effusion.

Learning objectives:
1. To understand the MRI presentation of disorders of the myocardium.
2. To become familiar with the imaging presentations of disorders of the endocardium, the pericardium, and the cardiac valves.
3. To describe the technical aspects and methodology of cardiac and vascular MRI.

Learning objectives:
1. To understand the causes of intracranial hypertension.
2. To understand the threats of intracranial hypertension on the central nervous system and arterial integrity.
3. To recognise intracranial hypertension and its complications on CT and MRI.

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1. To understand the causes of intracranial hypertension.
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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.

Learning objectives:
1. To understand the basic principles and techniques of cardiovascular imaging, including CT and MRI of the heart and great vessels.
2. To become familiar with the imaging presentations of disorders of the endocardium, the pericardium, and the cardiac valves.
3. To understand the MRI presentation of disorders of the myocardium.

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Learning objectives:
1. To understand the causes of intracranial hypertension.
2. To understand the threats of intracranial hypertension on the central nervous system and arterial integrity.
3. To recognise intracranial hypertension and its complications on CT and MRI.

Learning objectives:
1. To become familiar with the new classification of mediastinal compartments.
2. To become familiar with the imaging presentations of disorders of the mediastinum and cardiac tumours in adults.
3. To learn when to suspect lymphoma and when to suggest percutaneous biopsy.

Learning objectives:
1. To learn how to present interview findings.
2. To understand the importance of a well-designed and thorough interview process.
3. To learn how to present interview findings.

Learning objectives:
1. To become familiar with the aims of systematic reviews.
2. To understand the systematic reviews process and explore methodologies.
3. To be aware of the importance of identifying the appropriate keywords, databases, and search strategies to promote a robust systematic review.

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2. To understand the systematic reviews process and explore methodologies.
3. To be aware of the importance of identifying the appropriate keywords, databases, and search strategies to promote a robust systematic review.
**Postgraduate Educational Programme**

**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.Løgager@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. Boullouis; Paris/FR (gregoireboullouis@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).

**ESR Ultrasound Subcommittee Session**

**US 15**

**Common applications of dermatologic ultrasound**

Moderators:
- O. Catalano; Naples/IT
- D. 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. Gaitini; Haifa/IL (d_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.
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 different CT protocols in bluntly injured 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.

Session 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.

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. Pecht; 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 (lstruels@sckcen.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
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.

NH 16-6 17:17
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.
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.

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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 transgastral vs percutaneous drainage.
3. To learn how to avoid complications following pancreatic interventions.

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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 (curlin@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.

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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 material 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 material 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 material in diagnosing septic arthritis.
3. To list the differential diagnostic considerations in imaging septic arthritis.

**16:00 - 17:00 Coffee & Talk 3**

**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
Judi[ng 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. Krestit; 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@ipsj.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@ikl.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.
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?

16:00 - 17:30 Room K

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 about 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 about 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 - ECR Master Class (Genitourinary)

E³ 1626b
Prostate MRI: the accreditation issue

E³ 1626b-1 16:00
Chairperson's introduction
J. Richenberg; Brighton/UK (jonathan.richenberg@nhs.net)

Session objectives:
1. To understand the emerging role of the multidisciplinary approach for prostate cancer.
2. To discuss the role of the radiologist in the multidisciplinary approach to prostate cancer.
3. To discuss the accreditation and certification issues for prostate imaging.
**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.

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**17:14**
Panel discussion: Prostate units: the radiologist must be in the core team

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**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 (aparkar@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.

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**E3 1619-4** 17:02
C. The heart in pulmonary hypertension
K.-F. Kreitner; Mainz/DE (karl-friedrich.kreitner@unimedizin-mainz.de)

**Learning objectives:**
1. To learn about cardiac causes of pulmonary hypertension.
2. To become familiar with cardiac assessment in pulmonary hypertension.
3. To recognise the prognostic importance of right ventricle dysfunction in pulmonary hypertension.

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**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

**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. Uberoii; 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, ZH/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 future 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 (klau.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.

ESR Ultrasound Subcommittee Session

US 16
Ultrasound-guided interventional procedures: new techniques and applications

Moderator:
D.-A. A. Clevert; Munich/DE

US 16-1 16:00
Liver
E. Leen; London/UK

Learning objectives:
1. To learn about the new results and applications of ultrasound in guided interventional procedures: liver malignancy biopsy, primary liver malignancy ablation, secondary liver malignancy ablation.
2. To understand consolidated and new indications of ultrasound-guided interventional procedures: PEI, RFA, MWA, IRE.
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 the new diagnostic and therapeutic indications for ultrasound-guided interventional 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 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 pancreatic malignancy biopsy and treatment, RFA, MWA, IRE, combination treatment.
Postgraduate Educational Programme

US 16-3 16:30
Kidney
J.-M. Correas; Paris/FR

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, elastasonographic imaging for renal malignancy biopsy and treatment, RFA, cryoablation, MWA, combination treatment.

US 16-4 16:45
Thyroid
G. Mauri; Milan/IT (vanni.mauri@gmail.com)

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, elastasonographic imaging for thyroid malignancy FNA.

US 16-5 17:00
Vascular
D.-A. A. Clevert; Munich/DE (Dirk.Clevert@med.uni-muenchen.de)

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.

17:15
Panel discussion: How to be prepared for ultrasound-guided interventions?
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.

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.

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?

Special Focus Session

SF 17a
Colorectal liver metastasis: treatment planning and management

SF 17a-1 08:30
Chairperson's introduction
D. 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 underline what a surgeon would like to know from diagnostic radiologists.
2. To appreciate the potential of supportive solutions.
3. To understand the different situations across Europe.

SF 17a-3 08:52
Radiologist’s perspective: what should be shown?
D. Miletic: Rijeka/HR (damir.miletic@medri.hr)

Learning objectives:
1. To describe the best techniques and their indications for diagnosis.
2. To describe the role of surgery for treatment through comparing or combining with the other options.
3. To teach which surgical treatment options we have.

SF 17a-4 09:10
Interventional radiology in oncology perspective: which therapies are recommended?
R. Iezzi, Rome/IT (roberto.iezzi@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 describe 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.

PC 17 08:30 - 10:00
Professional Challenges Session

PC 17-1 08:30
Chairperson’s introduction
S. Morozov: Moscow/RU (morozov@npcmcr.ru)

Session objectives:
1. To learn about the differences in concepts for education and training across Europe.
2. To appreciate the potential of efficient education and training in radiology.
3. To understand the need for appropriate support to implement education and training structures.
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.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 clinical 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. 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. 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 radiotracers 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.
NH 17-2 08:35
Is there a future for gadolinium-based contrast agents?
O. Clement; Paris/FR (olivier.clement@aphp.fr)

Learning objectives:
1. To discuss the risks of gadolinium-based contrast agents.
2. To learn about the target of gadolinium-based contrast agents.
3. To learn about new MRI contrast agents.

NH 17-3 08:50
High field MRI: is higher better and is there a limit?
S. Trattnig; Vienna/AT (siegfried.trattnig@meduniwien.ac.at)

Learning objectives:
1. To discuss the advantages of high field MRI.
2. To learn about the challenges of using high field imaging.
3. To consider potential clinical roles for high field MRI.

NH 17-4 09:05
Novel MRI contrast methods: CEST, hyperpolarisation
S. Aime; Turin/IT (silvio.aime@unito.it)

Learning objectives:
1. To present novel methods to generate MRI contrast.
2. To understand the underlying biology.
3. To consider potential clinical applications in the future.

NH 17-5 09:20
Quantitative MRI: fingerprinting and beyond
V. Gulani; n/a

Learning objectives:
1. To understand the principles underlying magnetic resonance fingerprinting (MRF).
2. To learn how the method can be applied clinically.
3. To discuss potential roles of MRF in healthcare.

NH 17-6 09:35
Matrix in vision: non-invasive imaging of the extracellular matrix
B. Hamm; Berlin/DE

Learning objectives:
1. To learn about the extracellular matrix as an imaging target.
2. To understand the role of molecular imaging.
3. To understand the role of magnetic resonance elastography.

09:50
Panel discussion: What are the promising emerging areas in MRI?

E³ - European Diploma Prep Session

E³ 1723
Gynaecology and obstetrics

E³ 1723-1 08:30
Chairperson's introduction
M. Bekiesinska-Figatowska; Warsaw/PL (m.figatowska@mp.pl)

Session objectives:
1. To understand the imaging presentation of the most common benign and malignant disorders of the uterus.
2. To become familiar with inflammatory and neoplastic disorders of the adnexa.
3. To understand the imaging features of acute gynaecological disorders and of acute diseases in pregnancy.

E³ 1723-2 08:36
A. Imaging of the uterus
R. A. Kubik-Huch; Baden/CH (raheilkubik@ksb.ch)

Learning objectives:
1. To comprehend the imaging anatomy of the uterus and its changes throughout life and during pregnancy.
2. To understand typical imaging features and the local imaging-based staging of cervical cancer.
3. To become familiar with the typical imaging features of benign disorders of the uterus, especially uterine leiomyomas, adenomyosis, and endometriosis.

E³ 1723-3 09:04
B. Disorders of the adnexa
R. Forstner; Salzburg/AT (r.forstner@salk.at)

Learning objectives:
1. To describe the imaging features of benign tumours of the ovaries.
2. To understand the diagnostic evaluation and imaging features of malignant tumours of the ovaries.
3. To identify imaging features in regard to the stage and extent of adenexal tumours.
4. To become familiar with the imaging features useful for differentiating adnexal masses.

E³ 1723-4 09:32
C. Acute gynaecological and obstetric disorders
G. Masselli; Rome/IT (gabriele.masselli@uniroma1.it)

Learning objectives:
1. To become familiar with the typical and atypical imaging features of acute disorders of the uterus.
2. To understand the common emergencies associated with acute gynaecological disorders, including ectopic pregnancy, placenta previa, and emergencies related to abortion.

08:30 - 10:00 Room M 2

E³ - ECR Master Class (Emergency Imaging)

E³ 1726
Post-treatment emergencies in oncologic patients

E³ 1726-1 08:30
Chairperson's introduction: The role of imaging in the early detection of complications in oncologically treated patients
N.N.

Session 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.

E³ 1726-2 08:35
A. Chest
S. Bommart; Montpellier/FR (s-bommart@chu-montpellier.fr)

Learning objectives:
1. To become familiar with the modern approach to malignant chest tumour therapy.
2. To learn how to differentiate clinically important complications.
3. To understand how to look for early signs of severe and urgent conditions.

E³ 1726-3 09:00
B. Abdomen
R. Basilico; Chieti/IT (raffaellabasilico@gmail.com)

Learning objectives:
1. To learn about different therapies used in abdominal tumours.
2. To become familiar with possible complications.
3. To understand the effectiveness of imaging modalities in the evaluation of emergent complications.

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.

09:50
Panel discussion: What is the impact of complication findings on the continued management of oncologic patients?
08:30 - 10:00 Room M 3

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@ucd.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?

08:30 - 10:00 Room M 4

Special Focus Session

SF 17b
When stroke happens in children

SF 17b-1 08:30
Chairperson's introduction
M. Argyropoulou; Ioannina/GR (margyrop@cc.uoi.gr)

Session objectives:
1. To learn about the aetiology and imaging features of stroke in children.
2. To learn about the imaging protocols for stroke in children.
3. To discuss the optimal diagnostic and treatment pathway when stroke happens in children.

SF 17b-2 08:35
Stroke in neonates
M. H. Lequin; Rotterdam/NL (m.h.lequin@umcutrecht.nl)

Learning objectives:
1. To learn about the indications for neonatal stroke imaging.
2. To discuss the role of ultrasonography and MRI in neonatal stroke imaging.
3. To understand the different imaging patterns in neonatal stroke and their prognostic implications.

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?

08:30 - 10:00 Room M 5

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 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.

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 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 (tjargi@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  I. 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. 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.
**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?

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**Abdominal Viscera**

**RC 1801**  
**Imaging of the biliary system**  
Moderator:  
P. K. Prassopoulos; Thessaloniki/GR

**RC 1801-1** 10:30  
A. Magnetic resonance cholangiopancreatoigraphy (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 (giomorana@yahoo.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.

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**E1 - 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 (bucrem@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)
ECR 2020 | Scientific Programme

Postgraduate Educational Programme

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?

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 (umityasarayar@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 (ibarber@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.

**Panel discussion: The requisites for usual paediatric indications**

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**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 the anatomical considerations and pathophysiology of abnormalities that involve the biceps and triceps brachii.
4. To discuss the imaging findings of abnormalities that involve the biceps and triceps brachii.

**Genitourinary**

**RC 1807**

**Contrast media: acute kidney injury and acute adverse reactions**

**RC 1807-1 10:30**

Chairperson's introduction
M.-F. Bellin; Le Kremlin-Bicêtre/FR

**Session objectives:**
1. To learn about emergent issues regarding the safe use of contrast media.
2. To understand the mechanisms underlying acute reactions and renal function deterioration after contrast media injection.
3. To provide evidence-based recommendations for safe use of contrast media and for the management of acute reactions.

**RC 1807-2 10:35**

A. Post-contrast acute kidney injury (PC-AKI)
A. J. van der Molen; Leiden/NL

**Learning objectives:**
1. To learn about the possible causes for PC-AKI.
2. To review current evidence regarding PC-AKI.
Postgraduate Educational Programme

RC 1807-3 11:00
B. Iodine-based contrast media in myeloma patients
G. Heinz; St. Pölten/AT (gertraud.heinz@stpoelten.lknoe.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
G. 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

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 appreciate the 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?
F. 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.
RC 1817•3 11:00
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.

RC 1817•4 11:25
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.

11:50
Panel discussion: Imaging of the elderly patient: A forgotten task?

10:30 - 12:00 Room M 4
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.

RC 1804•6 11:43
E. Mediastinal syndrome
M. Occhipinti; Florence/IT (mariaelena.occhipinti@gmail.com)

Learning objectives:
1. To review the normal mediastinal lines.
2. To learn about the normal and abnormal mediastinal contour.
3. To know how to use the silhouette sign to localise mediastinal opacities.

10:30 - 12:00 Room M 5
E³ - Advanced Course: Interactive Teaching Session for Young (and not so Young) Radiologists

E³ 1821b
Breast imaging

E³ 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).

E³ 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 Session numbers are prefixed by RPS. My Thesis in 3 Minutes session numbers are prefixed by MyT3. Clinical Trials in Radiology are prefixed by CTiR. E³ Rising Stars: Student Sessions are prefixed by S. Sessions are listed by days.

There are 329 Invest in the Youth research papers presenters at ECR 2020. You can find their sessions marked with on the following pages.

There are 27 Shape your Skills research papers presenters at ECR 2020. You can find their sessions marked with on the following pages.
**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. Micali; 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. Schnoolls; 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; Turn/IT

**RPS 116-3** 08:52 Influence of the minimum b-value on prostate cancer assessment using conventional DWI and DKI models


**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 Multimparametric MRI characteristics of cribriform growth in prostate cancer in comparison to other Gleason sub-patterns


**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


**RPS 116-7** 09:16 Diffusion-weighted imaging in prostate cancer: a descriptor of tumour habitat differentiates high-risk and low-risk lesions

A. Bevilacqua, M. Mottola, F. Ferroni, D. Barone, G. Gavelli; Bologna/IT, Mediolan/IT

**RPS 116-8** 09:22 Can PSMA PET CT rule out all relapses of prostate cancer?

M. Garcia Fontes, L. Valuntas, M. Rodriguez Parodi, G. Dos Santos, V. Gigirey, O. Alonso; Montevideo/UY

**RPS 116-9** 09:28 VERDICT MRI fractional intravoxel volume assessment could help avoid unnecessary biopsies in men assessed for prostate cancer with multi-parametric MRI

S. Singh, 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. Gündüz, M. B. Esen, A. Yildirim, A. Kabaalioglu; Istanbul/TR

**RPS 116-11** 09:40 The development of postoperative image-guided tissue sampling using 3D-printed tumour moulds enabling multi-omics data integration

S. Ursprung, M. Crispin-Ortuzar, M. Gehring, A. Priest, F. A. Gallagher, A. Warren, G. Stewart, E. Sala, F. Markowitz; Cambridge/UK

**RPS 116-12** 09:46 Radiologic analysis in renal cell carcinoma: the impact of computed tomography vascular phase on parameter quantification


**RPS 116-13** 09:52 Patterns of response and comparison of RECIST1.1, iRECIST, and iRECIST criteria in a population of patients treated by nivolumab for a metastatic clear renal cell carcinoma


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**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. Birdar; 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

G. 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. Xie, V. Chen, V. Vardhanabhuti; Hong Kong/HK, Beijing/China

**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. Xie, J. Ho, H. Pang, R. Du, K. Chiu, E. Lee, V. Vardhanabhuti; 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. Vidiri, E. Gangemi, E. Ruberto, R. Pasqualoni, R. Sciuco, 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


**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. Guazzarotti, 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. Garba1, S. Bisdas2, P. Strojar, 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. Florio, N. Landini, A. Menegaldo1, D. Caruso1, P. Boscolo Rizzo1, A. C. Frigo1, A. Laghi1, 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. Ikeda1, Y. Ohno1, K. Murayama1, K. Yamamoto2, A. Iwase1, T. Fukuba1, D. Tabata1, M. Ikeda1, H. Toyama1; 1Toyoake/JP, 2Otarawa/JP

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, 2Otarawa/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 tumours
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. Vatteroni1, G. O. Santonocito2, G. Ferrillo2, R. Ramberti1, G. Mercante1, B. Fiamengo1, G. Spriano1, L. Balzarini1; 1Milan/IT, 2Ulm/DE

RPS 108-13 09:52
MRI accuracy in the detection of optic nerve invasion in retinoblastomas: a radio-pathologic correlation

08:30 - 10:00 Coffee & Talk 3

Physics in Medical Imaging

RPS 113
Advances in CT

RPS 113-1 08:30
Physical evaluation of a novel ultra-high-resolution CT scanner
L. J. Oostveen1, K. Boedeker2, M. Brink3, M. M. Prokop2, F. de Lange1, S. H. van der Grif1, Nijmegen/NL, 2Otawa/JP

RPS 113-2 08:36
Context-sensitive ultrahigh-resolution bone imaging in whole-body photon-counting CT
L. Klein, E. Wehrse, C. Amato, H. Ziener, M. Uhrig, G. Schlemmer, 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, H. Ziener, 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. Byl, L. Klein, J. Hardt, E. Wehrse, H.-P. Schlemmer, S. Heinze, M. Uhrig, S. Sawall, 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. Vlaschenko1, H. Ruitenbeek1, M. Boonekamp1, M. Fasaglia1, J. Hernandez-Giron1; 1Leiden/NL, 2Eindhoven/NL, 3Amsterdam/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, 3Alessandria/IT

RPS 113-7 09:06
Threshold-dependent dual-energy performance and spectral separation in a clinical whole-body photon-counting CT
S. Sawall, L. Klein, C. Amato, E. Wehrse, J. Maier, H.-P. Schlemmer, C. H. Ziener, S. Heinze, M. Kachelrieß; Heidelberg/DE

RPS 113-8 09:12
Does patient off-centring impact the accuracy of dual-energy CT-based iodine quantification in liver tumours?
C. S. Schmidt, B. Baessler, D. N. Nakhodkin, H. Alkadhi, A. Euler; Zurich/CH

RPS 113-9 09:18
A 3D generalisation of a detectability index in computed tomography: a feasible approach?
R. Villa, N. Paruccini, 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. Vanzulli1, 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. Primakov2, 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. Vanzulli1, G. Feliciani1, A. Sarnelli4, A. Torresin1; 1Milan/IT, 2Segrate/IT, 3Meldola/IT, 4Forli/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
G. Ardila Pardo, J. Conzelmann, U. Genske, B. Hamm, M. Scheel, A. Hasegawa1, T. Pan2; 1Maastricht/NL, 2Novara/IT

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. Hassegawa1, T. Pan2; 1Chapel Hill/US, 2Houston, TX/US
**Breast**

**RPS 102**

**Mammography and breast ultrasound: technical advances**

**Moderators:**
- C. S. Balleyguier; Villejuif/Fr
- N. Healy; Cambridge/UK

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<th>Session</th>
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<tr>
<td>RPS 102-4</td>
<td>08:48</td>
<td>Combination use of quantitative parameters for shear wave elastography and superb microvascular imaging to evaluate breast masses</td>
<td>E. J. Lee, Y.-W. Chang, Seoul/KR</td>
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<tr>
<td>RPS 102-5</td>
<td>08:54</td>
<td>What is the most predictive parameter in shear wave elastography to differentiate breast cancer and to predict tumour characteristics and immunohistochemical subtypes?</td>
<td>H. Kim, J. Lee, B. J. Kang, S. H. Kim, Seoul/KR</td>
</tr>
<tr>
<td>RPS 102-7</td>
<td>09:06</td>
<td>SonoeLASTograpy in the evaluation of fibrocystic breast disease</td>
<td>N. Jain, R. Rastogi, Moradabad/IN</td>
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<tr>
<td>RPS 102-9</td>
<td>09:18</td>
<td>Real-time MRI-US imaging fusion technique for breast lesion characterisation</td>
<td>A. Abate, R. Giovannazzi, C. Di Bella, S. de Beni, S. D'onofrio, M. Cereseto, G. Quercues, V. Besostri, R. Corso, Lesmo/IT, Monza/IT, Esaote/IT, Pavia/IT</td>
</tr>
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**Musculoskeletal**

**RPS 110**

**Cartilage, bone marrow oedema, tissue and body imaging**

**Moderators:**
- E. Vassalou; Iraklion/GR

<table>
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<td>RPS 110-1</td>
<td>08:30</td>
<td>Sub-regional morphological assessment of normal and degenerative articular cartilage</td>
<td>R. Khandelwal, A. Kharat, K. Saoj, A. Jaju, D. Kumar, Pune/IN, Bangalore/IN</td>
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<tr>
<td>RPS 110-2</td>
<td>08:36</td>
<td>The evaluation of cartilage degeneration using quantitative ultrashort echo time magnetisation transfer (UTE-MT): a feasibility study</td>
<td>J. Yang, H. Shao, Y. Ma, L. Wan, J. Du, G. Tang, Shanghai/CN, San Diego/US</td>
</tr>
<tr>
<td>RPS 110-4</td>
<td>08:48</td>
<td>Regional bone mineral density assessed by statistical parametric mapping in patients with and without reoperation following instrumented lumbar spinal fusion: a case-control study</td>
<td>M. T. Löffler, A. Valentinitsch, C. Zimmer, Y.-M. Ryang, J. S. Kirschke, Munich/DE</td>
</tr>
<tr>
<td>RPS 110-5</td>
<td>08:54</td>
<td>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</td>
<td>C. Booß, I. Yel, L. Lenga, S. S. Martin, K. Eichler, R. Hammerstingl, T. J. Vogl, M. H. Albrecht, Frankfurt am Main/DE</td>
</tr>
<tr>
<td>RPS 110-6</td>
<td>09:00</td>
<td>The effectiveness of methotrexate in the management of localised scleroderma (morphea) according to an ultrasound activity score</td>
<td>C. Wortsman; Santiago/CL</td>
</tr>
</tbody>
</table>
RPS 110-7 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, +Busan/KR

RPS 110-8 09:12
Early functional and morphological changes of calf muscles in delayed onset muscle soreness (DOMS) assessed with 7T MRI
R. Heiß, R. Janka, M. S. May, W. Wuest, T. Hotfiel, M. Uder, A. Nagel, F. W. Roemer; Erlangen/DE

RPS 110-9 09:18
Clinical usefulness of cross-sectional imaging modalities in grading the severity of sarcopenia in liver 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. Yavas, A. Akçay, F. Ufuk; Denizli/TR

RPS 110-11 09:30
The assessment of intramuscular tissue perfusion in PRICE therapy using contrast-enhanced ultrasound (CEUS)
R. Heiß, M. Hoppe1, C. Lutter1, R. Forst1, M. S. May, W. Wuest1, P. D. M. Engelhard1, C. Grimm1, T. Hotfiel1, Erlangen/DE; *Osnabrück/DE, +Rostock/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. Malich, N. Valouš2, A. Pfeil1; *Papageorgiou, Nordhausen/DE; +Heidelberg/DE, *Jena/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. Vadapalli1; *Hyderabad/IN, +London/UK

08:30 - 10:00 Room M 2

Wednesday

**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; *Seoul/KR, +Boston, 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. Ishihama1, S. Sanduleanu1, G. Wu1, H. Gietma1, L. Hendriks1, O. Morin1, H. C. Woodruff1, P. Lambin1; *Maastricht/NL, +San 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. J. Weikert1, P. Jäger1, J. Bremerich1, G. Sommer1, B. Stietljes1, S. Yang1, K. H. Maier-Hein1, A. W. Sauter1; *Basel/CH, +Heidelberg/DE

**RPS 105-4 08:58**
Evolving UNet architecture for lung cancer segmentation
S. Thulasi Seetha1, K. Driessens2, H. C. Woodruff1, U. Pastorino1, E. Bertocchi1, P. Lambin1; Milan/IT, +Maastricht/NL

**RPS 105-5 09:04**
The effectiveness of deep learning combined with multiple tumour-related antigen autodiagnostics to diagnose lung cancers at T0-T1 stages
Q. Meng1, J. Ding1, X. J. Chen1; *Zhengzhou/CN, +Beijing/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. Pillard1, Y. Diascorn1, B. Padovani1; *Nice/FR, +Palaiseau/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. Vaidhya4, D. S. Mahra2, K. C. Kaluva2, A. Chunduru1, S. Dhawan1; *Delhi/IN, +Bengaluru/IN, +New Delhi/IN

**RPS 105-8 09:22**
The influence of kernel reconstruction and nodule size in computer-aided detection (CAD) of lung nodules
A. Paternain Nuin1; I. Soriano Aguadero, P. Malmierca Ordoqui, A. C. Igual Rouilleau1, L. García Del Barrio, J. Larrache, J. C. Pueyo Villoslada, G. Bastarraka Alemani1, 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. Kaluva1, S. Vaidya1; V. K. Venugopal2, S. Rajan1, P. S. Shad2, V. Mahajan1, H. Mahajan2, A. Raj1, S. Upadhyay1; *Bengaluru/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. Notohamiprodjo2, F. Meinel1, C. C. Cyran1, M. Ingrisch1, J. Ricke1, B. O. T. Sabel1, *Munich/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. Saxena2, S. Vaidya1, D. S. Mahra2, K. Vaidhya4, A. Chunduru1, B. Aggarwal1; *Delhi/IN, +Bengaluru/IN, +New 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. Nempont, T. K. Y. Broussaud, V. Cottin, J. C. Pueyo Villoslada, G. Bastarraka Alemani1, Pamplona/ES

**RPS 105-13 09:52**
Automatic pleural effusion detection on chest x-ray as a triage tool
J. V. Isser1, M. Rossius1, Y. Blinder1, M. Cohen-Sfady2, C. Bretehl1, E. Zivi1, A. Akserod-Ballim1, E. Elnekave1, E. Goz1, E. Zivi1, R. Wities1; Rotterdam/NL, +Kibbutz Shefayim/IL, +Petchaburi/TH, +Shefayim/IL

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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. Wiensers1, 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. Drudi1, A. Lucarelli1, A. Beleu1, A. Giaretta1, G. Rizzo1, S. Conci1, M. D’Onofrio1, 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. Marcello1, G. Marcello1, G. Assegnati1, D. Konda1, E. Pofi1; Rome/IT

**RPS 109-4** 08:48

Real-time CT thermometry during hepatic radiofrequency ablation: an examination of the correlation between CT number shift, tissue temperature, and feasibility in a clinical setting

P. L. Cheah1, C. H. Yeo1, N. Sulaiman1, Y. H. Wong1, D. L. Lee1, D. Tan1, K.-S. Lim1, B. J. Abdullah1; Kuala Lumpur/My

**RPS 109-5** 08:54

The role of intra-arterial 90Y-DOTATATE therapy in the treatment of hepatic metastasis from neuroendocrine tumours

M. Rajasekaran1, I. Subbanna1, V. Bhargavi1, J. Moideen1; Bangalore/IN

**RPS 109-6** 09:00

Introduction and early experience with percutaneous microwave ablation in Croatia: our first 150 cases

L. Novosel1, 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. Li1, M. Xu1, X. Xie1; Guangzhou/CN

**RPS 109-8** 09:12

The role of intravoxel incoherent motion (IVIM) MRI imaging in the response evaluation of hepatocellular carcinoma after transarterial chemoembolisation (TACE)

M. R. Bursupalle1, V. Jineesh1, A. Ayyapan1, A. Alex1; 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’acrierno1, F. Somma1, V. Stoia1, R. D’angelo1, F. Fiore1; 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. Tancrili1, R. Iezzi1, A. Posa1, F. Carchesio1, A. Gasbarrini1, R. Manfredi1; 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. Vogl1, H. Adwan1, N.-E. A. Nour-Eldin1, T. Gruber-Rouh1; Frankfurt am Main/DE

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. Abrantes1, L. P. V. Ribeiro1, R. P. P. Almeida1, A. D. M. Ribeiro1, S. Rodrigues1, K. B. Azevedo1; Porto/PT, Faro/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. Mercieca1, M. L. Board1, Salford/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. Bravhar1, N. Mekis2, E. Alukić2; Zagreb/HR

**RPS 214-5** 10:54

The eye-tracking system as an assessment tool for improving the performance of mammographers in a breast cancer screening program

E. Pinto; Liverpool/UK
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
R. Gullien1, A. E. Haakull1, A. S. Bakken1, J.G. Andersen1,2; Oslo/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. Gremon1, N. Richli1; Lausanne/CH

RPS 214-9 11:18
Does radiographer assessment of image quality align with that required for diagnosis?
R. G. L. Decoster1, R. Toomey1, M.-L. Ryan1; Dublin/IE

RPS 214-10 11:24
Are image quality judgements by radiographers guided by a global signal or “gist”? 
R. Toomey1, J. Ryan1, R. G. L. Decoster1, J. G. Stowe1, M. O’connor1, K. G. Cronin1, L. A. Rainford1; Dublin/IE

RPS 214-11 11:30
Radiographers’ visual acuity performance can impact image quality evaluation
C. S. D. Reis1, E. A. P. S. Soares2, G. M. Bartoli1, K. Dastan3, Z. Dhlamini4,5; Bloemfontein/ZA, Johannesburg/ZA; Lifepoint/ZA

RPS 214-12 11:36
Quality assessment of paediatric chest radiographs: differences between radiologists and radiographers
C. I. D. C. T. Martins1, F. M. Nogueira1, J. Santos2; Lisbon/PT, 2-Coimbra/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. Viltužnik1, N. Mekis1; Riga/EL, Riga/EL

RPS 214-14 11:48
An investigation of how exposure faults can be accounted for in the reject analysis of digital radiographs
C. Mc Keown1, K. Matthews1; 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. Lynch1, K. Matthews1; 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. Chen1, N. Chen1, Z. Wang1; Beijing/CN

RPS 211-2 10:36
Paediatric retroclival epidural haematoma in the acute trauma setting: a sign of tectorial membrane stripping injury
P. Fiester1, D. Rao1, S. Andreou2, E. Soule1, J. Patel1; 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 Armindo1, D. Foutain1, S. Davies1, D. Ballard1; London/UK, Cambridge/UK
**MyT3 2**

**Breast**

Moderators: J. Nori1, V. Miele1

**MyT3 2-1** 10:30


**MyT3 2-2** 10:34

Mammographic density and risk factors collected by direct interview in breast interval and screen-detected cancers L. Laporte, L. Baglietto1, D. Caramelia, C. Iaconii, 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 X. Zhang, H. Luo, Z. Zhang; Chengdu/CN

**MyT3 2-4** 10:42


**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. Franconeri2, C. Bellini2, G. Bicchierai, D. de Benedetto1, F. Di Naro2, J. Nori, V. Miele; Pavia/IT, Florence/IT

**MyT3 2-7** 10:54

Breast arterial calcification on mammography does not predict coronary artery disease on invasive coronary angiography A. Fathalla; 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. Bellini1, A. Franconeri2, G. Bicchierai, D. de Benedetto1, F. Di Naro1, J. Nori, V. Miele; Florence/IT, Pavia/IT

**MyT3 2-11** 11:10


**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

**MyT3 2-13** 11:18

Breast's density and CAD: could a suspicious lesion change the assessment of computer-aided detection? A retrospective study F. Leone, M. A. Orsi, M. Cellina, G. Oliva; Milan/IT

**MyT3 2-14** 11:22

Value of machine learning with MRI radiomics for early prediction of pathological complete response to neoadjuvant chemotherapy in HER2-positive invasive breast cancer L. Qin, G. Yaji; Shanghai/CN

**MyT3 2-15** 11:26

Ultrasonographical evaluation of BI-RADS® 4 breast injuries and their histological correlation L. L. Ospina Ortiz2, A. P. Ortiz Gomez2, K. Catein2; Rio de Janeiro/BR, Petropolis/BR

**MyT3 2-16** 11:30

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 S. Atzori1, L. Baglietto1, M. Fornili1, D. della Latta2, D. Caramella1, C. Iaconii1; Pisa/IT, Massa/IT, Carrara/IT

**MyT3 2-17** 11:34

The use of digital breast tomosynthesis in the surveillance of breast cancer patients following breast conservative surgery S. Ahmed, R. Hassan; Assuit/EG

**MyT3 2-18** 11:38

Prognostic value of MRI complete radiological response in breast cancer patients after neoadjuvant chemotherapy M. Costilla Frías, J. H. Del Riego Ferrer, L. Tortajada Gimenez, A. Martin Oloriz, C. Aynes, M. T. Villafajos, F. Escobedo Alcántara, C. Codina; Sabadell/ES

**MyT3 2-19** 11:42

Radiomic features of tumour and fibro-granular tissue for predicting sentinel lymph node metastasis of breast cancer X. Chen; Chengdu/CN

**MyT3 2-20** 11:46

Comparison of prone digital breast tomosynthesis-guided vacuum-assisted biopsy (DBT-guided VAB) and prone atereotactic-guided vacuum-assisted biopsy (S-guided VAB) G. Boffelli1, C. Ferrari1, C. Depretto1, C. G. Monaco, A. Liguori2, A. Borelli2, G. Scaperrotta2; Bergamo/IT, Milan/IT

**Cardiac**

**RPS 203**

Myocardial perfusion imaging and infarct characterisation: diagnosis and prognosis

Moderators: T. Emrich, Mainz/DE

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

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. Kendziora, 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. Bogcalini, S. A. Si-Mohamed, L. Hanquier, L. Boussel, D. Revel, P. C. Douek, Lyons/FR, ’Broun/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

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. Ma, Y. Hou, X. Lu, J. Wang, X. Wang; ’Shenyang/CN’, ’Beijing/CN’

RPS 203-11 11:24
Sequential strategy including FFR, plus stress-CTP impacts on the management of patients with stable chest pain: the stress-CTP RIPCord study

RPS 203-12 11:30
Invisible to the eye: radiomics revealing alterations in apparently healthy myocardial tissue of patients with ischemic disease A. Cavaliere, L. Baffoni, R. Motta, B. Giorgi, E. Quaia, M. de Lazzari, M. Perazzolo Marra, C. Giraudo, ’Padua/IT’, ’Montebelluna/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. Marzi, C. Martin, N. Gaibazzi, A. Palumbo, G. W. Antonucci; ’Reggio Emilia/IT’, ’Parma/IT’, ’Barletta/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. Moideenbawa Abdulmajed, U. Debi, V. Bhatia, A. Sood, 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

RPS 203-2 10:30
Intravoxel incoherent motion imaging for the study of placental microstructure in intrauterine growth restriction: a prenatal in vivo MR study
A. Antonelli, S. Capuani, G. Ercolani, S. Bernardo, B. Kuehm, R. Grimm, A. de Rinaldis, L. Manganaro, C. Catalano; ’Rome/IT’, ’Erlangen/DE’

RPS 203-4 10:48
Left atrial dysfunction in children and adolescents with severe obesity: a cardiac magnetic resonance imaging myocardial strain study

RPS 203-5 10:54
Chest x-ray or lung ultrasound in neonatal lung disease? S. Deftereos, S. Foutzitzi; ’Alexandroupolis/GR’

RPS 203-6 11:00
Chronic aspiration in children: a retrospective study of CT findings and videofluoroscopy correlations

RPS 203-7 11:06
The upper airway after open airway surgery for laryngotracheal stenosis: a magnetic resonance imaging videofluoroscopy correlations
J. Hennermann, C. Düber, G. Staatz; ’Erlangen/DE’, ’Paris/FR’, ’Créteil/FR’

RPS 203-8 11:12

RPS 203-9 11:18
Acoustic radiation force impulse imaging for predicting liver cirrhosis in infants with biliary atresia
Y. Chen, S. Gu, Y. Zhu; ’Shanghai/CP’

RPS 203-10 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. Loret, C. Hoffmann, M. Lache, J. König, M. Brixius-Huth, J. Henniermann, C. Düber, G. Staatz, Mainz/DE

RPS 203-11 11:30
Diffusion-weighted imaging for the differentiation of biliary atresia and grading of hepatic fibrosis in infants
J. Kim, H. J. Shin, H. Yoon, S. J. Han, H. Koh, M.-J. Kim, M.-J. Lee; ’Seoul/KR’

RPS 203-12 11:36
New insights in paediatric body imaging
Moderators: B. Morel; Tours/FR
S. Stafrace; Doha/QA

RPS 203-13 11:42
Intravoxel incoherent motion imaging for the study of placentac microstructure in intrauterine growth restriction: a prenatal in vivo MR study
A. Antonelli, S. Capuani, G. Ercolani, S. Bernardo, B. Kuehm, R. Grimm, A. de Rinaldis, L. Manganaro, C. Catalano; ’Rome/IT’, ’Erlangen/DE’

RPS 203-14 11:48
Is there a worldwide standard normal foetal lung volume by MRI measurement? S. Sefidbakht, A. Dehdashtian, S. Bagheri, N. Rahimirad, P. Keshavarz, B. Bijan; ’Sharizz/IR’, ’Sacramento, CA/US’

RPS 203-15 11:54
Chest x-ray or lung ultrasound in neonatal lung disease? S. Deftereos, S. Foutzitzi; ’Alexandroupolis/GR’

RPS 203-16 11:00

RPS 203-17 11:06
The upper airway after open airway surgery for laryngotracheal stenosis: a magnetic resonance imaging videofluoroscopy correlations
J. Hennermann, C. Düber, G. Staatz; ’Erlangen/DE’, ’Paris/FR’, ’Créteil/FR’

RPS 203-18 11:12

RPS 203-19 11:18
Acoustic radiation force impulse imaging for predicting liver cirrhosis in infants with biliary atresia Y. Chen, S. Gu, Y. Zhu; ’Shanghai/CP’

RPS 203-20 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. Loret, C. Hoffmann, M. Lache, J. König, M. Brixius-Huth, J. Henniermann, C. Düber, G. Staatz, Mainz/DE

RPS 203-21 11:30
Diffusion-weighted imaging for the differentiation of biliary atresia and grading of hepatic fibrosis in infants J. Kim, H. J. Shin, H. Yoon, S. J. Han, H. Koh, M.-J. Kim, M.-J. Lee; ’Seoul/KR’
RPS 212-11 11:36
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 212-12 11:42
Dynamic MR lymphangiography to find the location of chylus leakage in children

W. M. Klein, B. Verhoeven, F. Udink Ten Cate, L. J. Schultze Kool; Nijmegen/NL

RPS 212-14 11:48
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. Dou1, W. Shen2; ‘Tianjin/CN, ‘Beijing/CN

RPS 212-15 11:54
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 14:00
Keynote lecture
D. Stojanov; Nis/RS

RPS 311-1 14:10
Gadolinium retention in the human body: the awareness of radiologists and impacts on daily radiology practice

M. E. Adin; Florence/IT

RPS 311-2 14:16
MRI evidence of progressive gadolinium deposition in bone during monthly triple-dose gadolinium CE-MRIs and its relationship to hypophosphataemia

J. J. Debevits1, D. Bagac1, P. Dicamillo2, R. Munbodh1, R. Wu1, S. Dhin-Jalbut3, L. J. Wolansky1, D. Karimeddini1, C. Kleinschnitz2, M. Forsting2, A. Radbruch2; ‘Barcelona/ES, ‘Heidelberg/DE

RPS 311-3 14:22
Gadolinium-based contrast agent in the aqueous chamber of infantile healthy eyes promptly after intravenous injection

K. Deike-Hofmann1, K. E. Kim, C. K. Kim; ‘Seoul/KR

RPS 311-4 14:28
High signal intensity in the globus pallidus (GP) and dentate nucleus (DN) on unenhanced T1-weighted magnetic resonance images: an assessment of two macrocyclic gadolinium-based agents

S. Rozenblatt1, J. Luckman1; ‘Toronto/CA, ‘Lille/Fr

RPS 311-5 14:34
The absence of T1 hyperintensity in the brain of high-risk iron-loaded thalassemia patients after multiple administrations of high-dose gadobutrol

A. Meloni1, D. Montanaro1, M. C. Resta2, P. Keilberg1, L. Pistoia1, T. Casini3, S. de Cori1, V. Positano1, A. Pepe1; ‘Pisa/IT, ‘Bari/IT, ‘Florence/IT

RPS 311-6 14:40
No changes in T1 relaxometry after a mean of eleven administrations of gadobutrol

K. Deike-Hofmann1, J. Reuter1, R. Haase1, T. Kuder1, D. Paech1, M. Forsting2, H.-P. Schlemmer1, C. P. Heuël1, A. Radbruch1; ‘Heidelberg/DE, ‘Essen/DE

RPS 311-7 14:46
A comparison of the effects of gadolinium-based contrast agents on neuronal cells

M. A. Erdogan1, M. Apaydin, G. Armagan, D. Taskiran; ‘Izmir/TR

RPS 311-8 14:52
Dynamic susceptibility MR perfusion imaging of the brain: not just a question of contrast molarity

Y. Panara, P. Chiacchiaretta, M. Parenti, M. Calzo; ‘Chieti/IT

RPS 311-9 14:58
Impact of the novel contrast agent gadopentetol on decision making in patients with brain metastases

F. A. Giordano1, J. Fleckenstein1, M. Eckl1, L. Hoppen1, F. Wenz1, M. Essig2; ‘Mannheim/DE, ‘Winnipeg, MB/CA, ‘Heidelberg/DE

RPS 311-10 15:04
The value of 4D-MR angiography at 3T compared to DSA for the follow-up of treated dural arteriovenous fistulas

D. Issaux1, F. Eugene1, J. Ognard1, J.-C. Gentic1, J.-C. Ferre2; ‘Brest/FR, ‘Rennes/FR

RPS 311-11 15:10
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 15:16
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 14:00
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 14:06
Individualised prostate cancer risk assessment using MRI-based deep learning compared to multivariate risk modelling including PI-RADSv2: a decision curve analysis

D. Denifle1, N. Abraham1, K. Namdar1, S. Motamedi1, I. Gujrathi2, E. Salinas-Miranda1, F. Khalvati1, M. A. Haider1; ‘Toronto/CA, ‘Boston/US

RPS 307-3 14:12
Independent validation of deep learning-based automated patient assessment on prostate MRI: the influence of image co-registration

P. Schell1, X. Wang1, S. Kohl1, M. Görtz1, M. Wiesenfarth1, H.-P. Schlemmer1, K. H. Maier-Hein1, D. Bonekamp1; ‘Heidelberg/DE, ‘Hirschberg/DE

RPS 307-4 14:18
Pi-RADS 3 lesions: role of prostate MRI texture analysis in the identification of prostate cancer

R. Cannella, D. Giambellucca, F. Vernuccio, A. Comelli, A. Pavone, L. Salvaggio, M. Mideri, R. Lagalla, G. Salvaggio; ‘Palermo/IT

RPS 307-5 14:24
Added value of quantitative DCE imaging on mpMRI prediction of stage pT3 prostate cancer

A. Cretece, F. Bonato, L. Cereser, G. Como, C. Zuiani, R. Girometti; Udine/IT
**RPS 307-6** 14:30
Comparison of first-order radiometric parameters to the mean ADC for the prediction of clinically significant cancer from prostate MRI

**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. Gattil, A. Motta, V. Giannini, M. Petrocchini, S. Cirillo, D. Regge, P. Foni, R. Faletti, Turn/IT, Candido/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. Gianneramo, 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

**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, D. de Santis, T. Blondi, N. Panvini, A. Laghi, Rome/IT, Belvedere Marittimo/IT, Latina/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. Grecre, M. C. Ambrosietti, 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. Strani, D. Basile, M. Calandri, V. Giannini, S. Mazzetti, A. de Pascale, F. Russo, A. Veltr, D. Regge, Catanzaro/IT, Rivoli/IT, Turin/IT, Candido/IT, Orbassano/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. Barucci, C. Caudai, S. Agostini, V. Miele, Florence/IT, Pisa/IT

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**RPS 303-1** 14:00
Comparison of free breathing 3D mDIXON with 3D inversion recovery and 3D spectral pre saturation 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. Grigoratos, A. Pantano, L. Ait-Ali, A. Barison, G. Todiere, G. Festa, G. Sinagra, G. D. Aquaro, Pisa/IT, Thiete/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 4DFlow 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. Guerri, M. Giglielmo, 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

**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
RPS 303-11 15:00
Two-shot compressed sensing techniques accelerate cardiac cine sequence acquisition and quantitative evaluation of diagnostic efficacy
J. Wang¹, L. Lin¹, J. An¹, M. Schmidt², C. Forman³, Y. Wang¹; ¹Beijing/CN, ²Erlangen/DE

RPS 303-12 15:06
A prospective randomised non-inferiority study of low iodine dual-energy coronary CT-angiography
D. C. Pottinger¹, S. A. Si-Mohamed¹, L. Bousseti¹, R. A. Meuli¹, P. C. Douek¹; ¹Lausanne/CH, ¹Bron/FR, ¹Lyons/FR

RPS 303-13 15:12
Improvement of image quality in high-resolution coronary computed tomography angiography when using a new deep learning image reconstruction algorithm
L. Macron, J. Feignonx, C. Le Goff, J.-L. Sablayrolles; Saint-Denis/FR

RPS 303-14 15:18
A new dual-energy algorithm for better displaying vessel wall borders of the coronary artery on coronary CT angiography
F. Zhang¹, W. Deng², K. Chen¹, H. Tan¹; ¹Sanya, Hainan/CN, ²Shanghai/CN, ¹Beijing/CN

RPS 303-15 15:24
CT-FFR profiles in patients without coronary artery disease
T. Leonard¹, C. N. de Cecco¹, U. J. Schoepf¹, S. S. Martin²; ¹Charleston, SC/US, ²Frankfurt am Main/DE, ¹Groningen/NL

Paediatric

RPS 312
New insights in paediatric head and neck imaging
Moderators:
I. L. Stéphán-Busakowska; Prague/CZ
E. Vazquez Mendez; Barcelona/ES

RPS 312-1 14:00
Neurodevelopmental outcomes of posterior fossa anomalies diagnosed by foetal MRI
S. Seifidbakhsh¹, A. Teimour¹, P. Katiibeh¹, N. Rahimirad¹, N. Asadi¹, P. Keshavarz¹, P. Iranpour¹, F. Zare¹, B. Bijani¹; ¹Shiraz/IR, ¹Sacramento, CA/US

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
A. Youssef; I. Zaky, A. Mohammed Aly, D. Elgalaly, M. Afifi, H. Taha, H. Elzomor, A. Alieidin; Cairo/EG

RPS 312-4 14:18
Neurosensoric hearing loss in children with Zika virus microcephaly and brain MRI evaluation
N. Anaissi Rocha Pessoa¹, M. de Carvalho Leal¹, S. Caldas Da Silva Neto¹, L. Ferreira Muniz¹, P. M Parizel¹, M. D. F. Vasco Araque¹; ¹Recife/BR, ¹Perth/AU

RPS 312-5 14:24
Chronic rhinosinusitis in patients with primary ciliary dyskinesia: comparison with findings in cystic fibrosis
F. Wuer tengmann¹, O. Sommer burg¹, M. Stahl¹, H.-U. Kauczor¹, I. Baumann¹, M. A. Mal¹; M. Eichinger¹, M. O. Wielpütz¹; ¹Heidelberg/DE, ¹Berlin/DE

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. Ciet; Rotterdam/NL

RPS 312-7 14:36
A preliminary study assessing a novel neonatal brain MRI in the neonatal ICU
N. Berkovitz¹, E. Ben-David¹, A. Pais¹, D. Rosenbaum¹, Y. Kassierer¹, A. Bin Nun¹; ¹Yad-Binyamin/IL, ¹Jerusalem/IL, ¹Shoham/IL, ¹New York/US

RPS 312-8 14:42
Cerebral white matter alterations in very preterm infants: the contribution of 2D shear-wave elastography
M. Francavilla², P. Picq², P. Boizeau², M. Tanter², O. Baud², S. Guilmin Crepron², V. Biran², M. Alison²; ¹Bar/I, ²Paris/FR, 2Geneva/CH, 2Saint Mandé/FR

CTiR 3
Clinical Trials in Radiology 1

Moderators:
M. Dewey; Berlin/DE
U. Mahmood; Oak Brook/US

CTiR 3-3 14:00
Can additional cancers detected by digital breast tomosynthesis in screening be detected on the corresponding mammography examination using artificial intelligence?
V. Dahlblom, A. Tingberg, K. Lang, I. Andersson, S. Zachrisson, M. Duster, Malmo/SE

CTiR 3-4 14:10
Discussant
E. Szabó; Szeged/HU

CTiR 3-5 14:15
Digital Breast Tomosynthesis (DBT) as a primary screening test in a population-based screening program: results from the “Trento DBT pilot study” including interval carcinoma analysis
D. Bernardi¹, M. A. Gentilini², M. Pellegrini³, C. Fantò², M. Valentini², V. Sabatino², M. de Nisi², N. Houssami¹; ¹Milan/IT, ²Trent/IT, ³Sydney/AU

CTiR 3-6 14:25
Discussant
P. A. T. Baltzer; Vienna/AT

CTiR 3-9 14:30
Dose reference levels during fluoroscopically-guided procedures performed using mobile X-ray systems in operating rooms
I. Hadid-Beurrier¹, M. Demonchy¹, J. Le Roy¹, B. Royer¹, D. Dabl²; ¹Paris/FR, ²Frejus/FR, ³Montpellier/FR, ⁴Maxéville/FR, ⁵Angers/FR

CTiR 3-10 14:40
Discussant
A. Triantis; Udine/IT

CTiR 3-11 14:45
CT screening for early lung cancer, cardiovascular disease, and COPD in China: rationale and design of the NELCIN-B3 study
Y. Du¹, M. Vonder¹, Q. Li¹, G. Sidorenkov¹, Z. Ye¹, X. Xie¹, W. Wang², M. Oudkerk², S. Liu¹; ¹Groningen/NL, ²Shanghai/CN, ³Tianjin/CN

CTiR 3-12 14:55
Discussant
M. Benegas Urteaga; 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 Dekker¹, M. F. Bakker¹, S. V. de Lange¹, R. M. Pijnappel¹, W. B. Veldhuis¹, C. van Gils¹; Utrecht/NL

CTiR 3-8 15:10
Discussant
U. Biek; Berlin/DE

14:00 - 15:30 Descartes (Room D3)
RPS 312-9 14:48
The neurodevelopmental effect of intracranial haemorrhage observed in hypoxic-ischaemic brain injury in hypothermia-treated asphyxiated neonates: an MRI study
A. Lakatos2, M. Kolossvary2, M. Szabo2, Á. Jermendy1, H. Barta2,
G. Gyebnár2, G. Rudas3, L. R. Kozák2, Miskolc/HU, 2Budapest/HU

RPS 312-10 14:54
Quantitative paediatric MRI going clinical: comprehensive brain assessment from a single sequence based on quantitative brain maturation atlases
B. Morel1, G. F. Piredda2, T. Hilbert2, C. Tauber1, J. P. Cottier1, B. Maréchal2, T. Kober2; 1Tours/FR, 2Lausanne/CH

RPS 312-11 15:00
Frequency-dependent changes of interhemispheric functional connectivity and aberrant cerebral synchronisation in idiopathic generalised epilepsy
X. Ma, L. Jiang, S. Li, T. Zhang; Zunyi/CN

RPS 312-12 15:06
Fibre tractography and diffusion tensor imaging in children with corpus callous anomalies: a clinicoroadiologic correlation
N. F. El Ameen1, M. Ibraheim1, S. Mounir1, ElMinia/EG

RPS 312-13 15:12
Posterior reversible encephalopathy syndrome in children: the association of blood pressure with imaging severity
K. Khandwala1, K. Hilal1, N. Sajjad1, A. Malik2; 1Karachi/PA, 2Atlanta/US

RPS 312-14 15:18
Cerebral perfusion in children sedated with propofol: an arterial spin labelling (ASL) study
V. Maruotti, E. Piccirilli, P. Chiacchiaretta, A. Ferretti, V. Panara, M. Caulo; Chieti/IT

14:00 - 15:30 Room M 1
Abdominal Viscera

RPS 301a 14:00
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 radionics score and G1/2 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. Zhu1, P. Asbach2, T. Denecke1, B. Hamm1, Z. Jin1; 1Beijing/CN, 2Berlin/DE, Leipzig/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
G. T. Sarac, A. Djuric-Stefanovic; Belgrade/RS

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. Xue1, G. Lo1, O. L. Wong3, J. Yuan1; 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. Özgül, I. Başara Akin, M. Seçil; 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. Jin; Beijing/CN

RPS 301a-14 15:18
Gadoxetic acid-enhanced MRI in primary sclerosing cholangiitis: added value in liver function evaluation and monitoring of disease progression
A. Elkilany1, T. Müller1, A. Fischer1, T. Denecke1, D. Geisel1; Berlin/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. Elkilany1, T. Müller1, A. Fischer1, T. Denecke1, D. Geisel1; Berlin/DE

14:00 - 15:30 Tech Gate Auditorium
Abdominal Viscera

RPS 301b 14:00
The role of imaging in hepatocellular carcinoma (HCC) management
Moderators:
M. C. Burgmans; Leiden/NL
R. Sartoris; Clichy/FR

RPS 301b-K 14:00
Keynote lecture
A. Ba-Ssalamah; Vienna/AT
RPS 301b-2 14:10
Short MRI surveillance protocol for the detection of hepatocellular carcinoma: the SMS protocol
F. Willemse; G. de Lussanet de la Sablonière, R. S. Dwarkasing; Rotterdam/NL

RPS 301b-3 14:16
Diagnostic performance of an abbreviated non-contrast MRI for hepatocellular carcinoma surveillance

RPS 301b-4 14:22
Abbreviated magnetic resonance imaging (AMRI) for HCC detection: a five-year single-center experience
A. Pecorelli; P. M. Dautt Medina, N. Layyous, J. Y. An; A. Mamdipalli, R. L. Brunsing, M. T. Booker, C. B. Sirlin, K. J. Fowler; San Diego, CA/US, Stamford/US

RPS 301b-5 14:28
Radiomics model to predict hepatocellular carcinoma on liver MRI of high-risk patients in surveillance: a proof-of-concept study
M. P. A. Starmans, C. J. Elt, F. Fiduzzi, W. J. Niessen, S. Klein, R. S. Dwarkasing; Rotterdam/NL

RPS 301b-6 14:34
Combining CT-liver perfusion and MRI with hepatobiliary contrast agent to increase diagnostic accuracy in patients with suspected hepatocellular carcinoma
G. Kalarakis; E. Chryssou, K. Perisinakis, D. Samonakis; Heraklion/GR, Stockholm/SE, Thessaloniki/GR

RPS 301b-7 14:40
Atypical enhancement pattern of hepatocellular carcinoma on multiphasic CT due to presence of portal vein thrombosis: a potential pitfall in imaging-based diagnosis
M. Rauf, C. Bai, S. Gul, B. Yawar Faiz; Islamabad/PK

RPS 301b-8 14:46
Radiomic analysis of contrast-enhanced CT predicts microvascular invasion and outcome in hepatocellular carcinoma
X. Xu, Y. D. Zhang; Nanjing/CN

RPS 301b-9 14:52
Radiological appearance of HCC recurrence after orthotopic liver transplantation (OLT) in adult patients: practical approach for an effective imaging follow-up
A. Pecorelli, M. Pace, P. A. Bonaffini, F. Sala, M. Lucà, S. Fagiuoli, S. Sironi; Bergamo/IT

RPS 301b-10 14:58
Risk of liver cirrhosis and hepatocellular carcinoma after Fontan operation: a need for surveillance
D. H. Lee; Seoul/KR

RPS 301b-11 15:04
Hepatocellular carcinoma: MRI texture analysis as a predictive biomarker of survival by Yttrium-90 radioembolisation
S. Liu; M. King, C. Zhan, A. Tong, B. Dane, C. Huang, K. Shanbhogue; New York, NY/US

RPS 301b-12 15:10
Predicting the therapeutic response of hepatocellular carcinoma to transcatheter arterial chemoembolisation based on CT texture analysis: evaluation of a multiparametric prediction model
J. Vossenreich, C. J. Zech, T. Boldanova, M. Heim, D. Boll; Basel/CH

RPS 301b-13 15:16
Impact of skeletal muscle mass loss and sarcopenia on cumulative survival and procedure success in hepatocellular carcinoma (HCC) patients who have undergone transarterial chemoembolisation (TACE)
L. Allois, A. Deapoli, E. Mosso, S. Gaia, A. Ferraris, P. Carucci, C. Guarnaccia, E. Rolle, P. Fonio; Turin/IT

RPS 301b-14 15:22
Endovascular management of cerebral arteriovenous malformations
M. T. N. Mekhall1, A. Bessar1, T. Elserafy, M. Teaeama; Zagazig/EG, Cairo/EG

MyT3 4 16:00
Clinical applications of partial splenic artery embolisation
A. M. Teams; Kafrelsheikh/EG

MyT3 4-1 16:16
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 4-2 16:04
Endovascular management of cerebral arteriovenous malformations
M. T. N. Mekhall1, A. Bessar1, T. Elserafy, M. Teaeama, F. Youssef; Cairo/EG

MyT3 4-3 16:08
Evaluation of 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 sphen 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, P. Casanova, W. D. Strain; Exeter/UK

MyT3 4-6 16:20
How we see congenital portosystemic shunts through CT-angiography
M. Akvaci; I. Akdolum, M. Öztürk, Ö. L. Boyunağa, A. Sigirli; 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. Lepekshina; 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. Rießenkow, I. Benzar; Kiev/UA

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
E. Ozcul; Akyonkarahisar/TR

MyT3 4-13 16:48
Quality control studies of dynamic contrast-enhanced 3-dimensional magnetic resonance angiography for spinal vascular
J. Cao, L.-L. Cui; Shenyang/CN
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. Yungian, 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; 2Xiang/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; 2Xiang/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; 2Czeladź/PL

MyT3 4-20 17:16
Non-contrast magnetic resonance angiography in renal artery assessment
S. Sethu Madhavan; V. Bhat; Kannur/IN; 2Bengaluru/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 vermian 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. Alibeigi Nezhad; N. Seyed Saadat; M. A. Kazemi; M. Shirazi; A. Borhani; Tehran/IR; Z. Alibeigi Nezhad/IR

RPS 411-4 16:18
Widespread cortical dyslamination in epilepsy patients with periventricular heterotopia and focal cortical dysplasia
E. Lotan; G. Tomer; I. Tavori; I. Blatt; H. Goldberg-Stern; C. Hoffmann; Petah Tikva/IL; 2Tel Hashomer/IL; 2Tel 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. Malinge; Tel-Aviv/IL; 2Holon/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. Panfilii; F. Pilato; L. Massimi; C. Colosimo; 2Taranto/IT; 2Rome/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. Tené; R. Goldstein; N. Gupta; O. Glenn; Beer Sheva/IL; 2Winnipeg, MB/CA; 2San 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. A. Mattei, M. Caldo; Chieti/IT

RPS 411-11 17:00
Age-related differences in subfields and subregions of the hippocampus in normal volunteers
N. Ananyeva, E. Andreev, 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. Fadzi; K. S. Lim; Kuala Lumpur/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; 2New 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

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Scientific Programme | ECR 2020 343
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. Mandeville, 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. Percivalle, A. Carriero, M. Spinetta, G. Guzzardi, F. Caumo1, G. Gennaro1, A. Pittaro1, G. Romanucci2, C. Fedato3

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. Vanhoenacker2; 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. Selvarajah1, A. Curtis2, O. Kennedy1, 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
S. Tian, H. Yuan; Shanghai/CN

MyT3 5-7 08:54
MRI evaluation to predict tendon size for knee ligament reconstruction

MyT3 5-8 08:58
Hand extensor compartments: how to study them and is it always their fault?
A. Paladini1, G. Guzzardi1, M. Spinetta1, A. Galbiati1, G. Romanucci2, C. Fedato3

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, I. Ye1, N. Grosse Hokampi2, J. Borggrefe2, L. Lenga1, 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 desomophene dependent 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
P. Ruiz Santiago, N. Prados Olleta, P. Tomás Muñoz, A. J. Láinez Ramos-Bossini; Granada/ES

MyT3 5-13 09:18
Shoulder stability: where does it fail?
C. A. B. Oliveira, F. D. S. Costa, V. Mendes, F. Vieira; Braga/PT

MyT3 5-14 09:22
Pitfalls in imaging of TFCC
O. Balazs; Timisoara/RO

MyT3 5-15 09:26
Sarcopenia in total hip replacement and its effects on complications
M. Ay, H. Çetin, N. Çay; Ankara/TR

MyT3 5-16 09:30
MRI findings and their correlations in patients with symptomatic subtalar cavovarus hindfoot deformity
I. Menkova; St. Petersburg/RU

MyT3 5-17 09:34
The role of diffusion-weighted MRI in the assessment of treatment response to chemotherapy in osteosarcoma
R. Kaddali1, T. Raafat1, M. E.-M. S. A. Bokhary1; Cairo/EG, Giza/EG

MyT3 5-18 09:38
Immediate morphological spine modification after positioning of removable interspinal spacer for unifocal lumbar canal stenosis
L. J. Payan1, F. Torre1, J. Yazbek2, A. Prestat3, S. Guinebert4, D. S. Palominos Pose5, N. Stacco6, N. Amoretti7;Nice/FR, Bordeaux/FR, Paris/FR, Santiago/CL, Lyons/FR

MyT3 5-19 09:42
Use of DISC0GEL® to treat cervical and lumbar disc bulging: results and consideration in our monocentric experience
A. Paladini1, G. Guzzardi1, M. Spinetta1, A. Galbiati1, M. Cernigliaro1, D. Negroni1, I. Percivalle1, Z. Falaschi1, G. F. Buoni1; Novara/IT, Turin/IT

08:30 - 10:00 Tech Gate Auditorium

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. Brandal4; 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. Setz1, M. Broeders4, V. C. G. Tjan-Heijnen1, L. Duijm3, 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. Caumo1, G. Gennaro1, A. Pittaro1, G. Romanucci2, C. Fedato1, S. A. Montemezzi2; Padua/IT, Verona/IT, Treviso/IT
RPS 502-4 08:58
The early effects of a mammography screening program on advanced breast cancer incidence in the Friuli Venezia Giulia Italian region

F. Giudici1, M. Tonutti2, M. Bortol1, F. Zanconati1, A. Zucchetto1, A. Franzo1, M. Gobbato1, M. A. Cova1, L. Bucchi4; 1Trieste/IT, 2Croc-Aviano/IT, 3Udine/IT, 4Forlì-Meldola/IT

RPS 502-5 09:04
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. Zuliani; Udine/IT

RPS 502-6 09:10
Delayed breast cancer diagnoses in women recalled at screening mammography: trends in the proportions and lengths of delay over two decades of screening

L. Duijm1, J. L. R. Lameijer2, M. Broeders1, R. M. Pijnappel3, 1Eindhoven/NL, 2Utrecht/NL, 3Maastricht/NL

RPS 502-7 09:16
Classification of interval cancers on digital breast tomosynthesis compared to digital mammography in the Malmö breast tomosynthesis screening trial

K. Johnson1, K. Lang2, D. M. Ikeda3, S. Zackrisson2; 1Nijmegen/NL, 2Malmö/SE, 3Stanford/US

RPS 502-8 09:22
First Australian pilot trial of digital breast tomosynthesis (3D-mammography) population-based screening in BreastScreen Victoria

D. J. Lockie1, N. Houssami2, M. E. Clemson1; 1Southbank/AU, 2Sydney/AU, 3Ringwood East, VI/AU

RPS 502-9 09:28
Breast cancer detection rate of screening digital breast tomosynthesis versus 2D mammography: a meta-analysis

A. Warden1, M. Alabousi1, D. N. Zha1, J.-P. Salamé1, L. Samoilov1, A. Dehmoobad Sharifabad1, A. Pozdynakow2, B. Sadeghirad2, A. Alabousi1, 1Valhalla, NY/US, 2Hamilton, ON/CA, 3Ottawa, CA, 4London/CA

RPS 502-10 09:34
A survey of technical repeats and recalls in the UK Breast Screening Service

M. L. Hill1, M. Halling-Brown2, P. Whelehan3, R. Highnam4; 1Issy-Les-Moulineaux/FR, 2Guildford/UK, 3Southend/AU, 4Wellington/NZ

RPS 502-11 09:40
A multicentre, retrospective analysis of interval cancers to determine clinicopathological factors that correlate with increased growth rates

N. Sharma1, S. Duffy2, M. W. Wallis3, L. S. Wilkinson1, K. Satchithananda1, R. Rahman1, A. Turnbull1, E. G. E. Macinnes1, J. Simpson1; 1Leeds/UK, 2London/UK, 3Cambridge/UK

RPS 502-12 09:46
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?

R. G. Blanks1, M. G. Wallis2, R. Alison1, R. Given-Wilson1; 1Oxford/UK, 2Cambridge/UK, 3London/UK

RPS 502-13 09:52
Trends in recall and outcome of screen-detected microcalcifications during two decades of screening mammography in the Netherlands

L. Duijm1, J. L. R. Lameijer2, M. Broeders1, K. Roes1, L. Duijm2, V. C. G. Tian-Heijnen3, A. Voogd4; 1Nijmegen/NL, 2Tilburg/NL, 3Breda/NL, 4Maastricht/NL

11:15 - 12:30 Room B

Musculoskeletal

RPS 610 Ultrasound, interventions and new techniques

Moderators:
G. M. Allen; Oxford/UK
N.N.

RPS 610-K 11:15
Keynote Lecture
B. Bignotti; Genoa/IT

RPS 610-1 11:25
Accuracy of ultrasound in the characterisation of superficial soft tissue tumours: a prospective study

S. W. Y. Yip1, J. F. F. Griffith2, E. H. Hung3, W. H. A. Ng2, C. S. Tong2, K. L. L. Lee1; 1Shatin/HK, 2Hong Kong/CN, 3Hong Kong/HK

RPS 610-2 11:31
Quantitative evaluation of muscle stiffness with shear-wave elastography in children with cerebral palsy after a botulinum toxin A injection


RPS 610-3 11:37
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

RPS 610-4 11:43
Detection of intra-articular urate deposition in gout: an ultrasound and dual-energy CT study

J. Legrand1, F. Becque1, C. Marzin1, L. Norberciak1, J.-F. Pudzki1, T. Pascart1; 1Lille/FR, 2Lausanne/CH

RPS 610-5 11:49
Quantitative evaluation of image quality of reduced-dose cone-beam CT images using an adaptive image noise optimiser

R. H. H. Wellenberg1, G. J. Sreekraka2, M. Maas; Amsterdam/NL

RPS 610-6 11:55
Prognostic prediction in initially diagnosed multiple myeloma patients using IVIM-DWI and multi-echo Dixon MR imaging


RPS 610-7 12:01
Change of apparent diffusion coefficient during CT-guided periradicular infiltration as an indicator of therapy success

S. Ilyas1, D. F. P. Uthenbrock2, P. Haager3, C. A. Stuckle1; 1Dortmund/DE, 2Wuppertal/DE, 3Witten/DE

RPS 610-8 12:07
Chondroblastoma treatment by radiofrequency thermal ablation

F. Ruiz Santiago1, G. Guzman Alvarez1, A. Martinez Martinez; 1San José/ES

RPS 610-9 12:13
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/CH

RPS 610-10 12:19
Dynamics of muscle injuries and recovery in diffusion-tensor imaging

L. Wu; 1Baltimore, MD/US

RPS 610-11 12:25
The effect of radiofrequency pulse transmission polarisation on metal-related artefacts in 3T magnetic resonance imaging: circular versus elliptical polarisation

I. Khodarahmi1, G. Chang2, J. Fritz2; 1New York, NY/US, 2Baltimore, MD/US
GI Tract

**RPS 601a**

**Advances in rectal cancer imaging**

**Moderators:**
B. J. Op De Beeck; Edegem/BE
I. Blazic; Belgrade/RS

**RPS 601a-1**  11:15
The predictive value of pre- and post-neoadjuvant chemoradiotherapy MRI characteristics for patient outcomes in locally advanced rectal cancer
Y. Meng1, C. Wang2, P. Dou, H. Zhang3, K. Xu1, C. Zhou1; 'Xuzhou/CN, 'Jiangsu/CN, 'Beijing/CN

**RPS 601a-2**  11:21
What's in a name? “Polyloid” as a descriptor in pelvic MRI synoptic reporting for rectal cancer

**RPS 601a-3**  11:27
Clinical T4a rectal cancer at MRI: do these patients develop peritoneal carcinomatosis?
C. Simmers1, M. Capanu1, D. Bates1, J. Fuqua1, J. S. Golia1; S. Javed-Tayyab1, V. Paroder1, I. Petkovska1, M. J. Gollub1; 'New York, NY/US, 'Bridgeport, CT/US

**RPS 601a-4**  11:33
MRI texture analysis for the early prediction of therapeutic response to neoadjuvant chemoradiotherapy and tumour recurrence of locally advanced rectal cancer
H. Park1, K. A. Kim1, S. S. Hwang2, S. Y. Park1, H. A. Kim1; Suwon-si/KR

**RPS 601a-5**  11:39
Value of high-resolution MRI in detecting lymph node calcifications in patients with rectal cancer
Y. Chen1, Z. Wen1, Y. Liu1, X. Yang1, Y. Ma1, B. Lu1, X. Xiao1, S. Yu2; 'Guangzhou/CN, 'Shenzhen/CN

**RPS 601a-6**  11:45
Humans cannot distinguish mucinous rectal cancer from acellular mucin post-treatment: can computers? A multi-institutional pilot study
Y. Chen1, Z. Wen1, Y. Liu1, X. Yang1, Y. Ma1, B. Lu1, X. Xiao1, S. Yu2; 'Guangzhou/CN, 'Shenzhen/CN

**RPS 601a-7**  11:51
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. Donati1, R. Cervelli1, P. Boraschi1, N. Furbetta1, G. Tarantini1, L. Morelli1, D. Caramella2; 'Pisa/IT

**RPS 601a-8**  11:57
The role of high-resolution apparent diffusion coefficient histogram analysis in evaluating tumour response of locally advanced rectal cancer after neoadjuvant chemoradiotherapy
L. Yang1, C. Xia1, D. Liu1, B. Wu1; 'Chengdu/CN

**RPS 601a-9**  12:03
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. Haak1, M. Maas1, T. N. Boellaard1, A. Deli Pizz2, C. Minh1; D. van der Zee1, G. L. Beets1, R. G. H. Beets-Tan1, D. M. J. Lambrecht2; 'Amsterdam/NL, 'Chieti/IT, 'Maastricht/NL, 'Uden/NL

**RPS 601a-10**  12:09
Patho- radiomic signatures predict pathological complete response to neoadjuvant chemoradiotherapy in rectal cancer
W. Liujuan1, H. Zhang2, Z. Sun1, W. Peng1, L. Wan1; 'Beijing, Chaoyang/CN, 'Beijing/CN

**RPS 601a-11**  12:15
Rectal cancer: a methodological approach for matching PET/MRI to histopathology
M. K. Rutegård1, M. Båtsman1, J. Axelsson1, F. Brännström1, L. C. O. K. Blomqvist2, I. Ljuslinder1, R. Palmqvist1, M. Rutegård1, K. Riklund1; 'Umeå/SE, 'Söderåsens/SE, 'Stockholm/SE

**RPS 601a-12**  12:15
Vascular

**RPS 615**

**CT in vascular imaging**

**Moderators:**
P. Chabrot; Clermont-Ferrand/FR
V. Rafailidis; London/UK

**RPS 615-K**  11:15
Keynote lecture
M. Radzina; Riga/LV

**RPS 615-1**  11:25
Impact on clinical practice of updated guidelines on iodinated contrast material: CINART
E. C. Nijsen1, P. J. Nelemans2, R. Rennenberg2, A. J. van der Molen3; V. van Ommeren1, J. E. Willebergen1; 'Maastricht/NL, 'Leiden/NL

**RPS 615-2**  11:31
Time-resolved dual-source CT angiography: an evaluation of type II endoleaks after endovascular aneurysm repair
N. Schicchi1, M. Fogante1, P. Esposto Pirani1, G. Agliata1, A. Giovagnoni1; Ancona/IT

**RPS 615-3**  11:37
The clinical application of adaptive statistical iterative reconstruction V combined with a low tube current technique in head dual-energy spectral imaging CTA
T. Song1, Z. Li1; 'Chengdu/CN

**RPS 615-4**  11:43
Split-phase aortic CTA for TAVI planning using a dual-layer spectral CT with reconstruction of low-keV monoenergetic images
D. Mangold1, J. Riffel1, H.-U. Kauczer1, T. F. Weber1; 'Heidelberg/DE

**RPS 615-5**  11:49
Artificial intelligence and the thoracic aorta: do we still have to measure manually?
M. Pradella1, T. J. Weikert1, J. Cyriac1, R. Kärger1, J. Bremerich1, G. Sommer1, A. W. Sauter1, B. Stieltjes1, P. Brantner1; 'Basel/CH, 'Nuremberg/DE

**RPS 615-6**  11:55
Identification of fast-growing abdominal aortic aneurysms (AAAs) via radiomics analysis of contrast-enhanced computed tomography (CE-CT) imaging
F. Xiong1, Y. Wang1, J. Leach1, E. Kao1, D. Mitsouras1, D. Saloner1; 'San Francisco/US

**RPS 615-7**  12:01
Twin-beam dual-energy CT for the diagnosis of pulmonary embolisms: first clinical results
B. M. W. Petritsch1, A. Weng1, P. Pannenbecker1, S. Veldhoen1, T. A. Bley1, T. Song2, Z. Li2; 'Chengdu/CN

**RPS 615-8**  12:07
Low-contrast media dose protocol in renal CT angiography for non-obese patients: the usefulness of low virtual mono-energetic images derived from a dual-layer spectral detector CT
Y. Yang1, F. Yan1, R. Chang1, X. Chen1, Q. Han1, H. Dong1; 'Shanghai/CN

**RPS 615-9**  12:13
A preoperative MDCT angiography study of hepatic arterial and portal venous anatomy in liver donors
P. Saraswat1, S. Vohra1; 'New Delhi/IN
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
Amsterdam/NL

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, Bordeaux/FR, Lyons/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
Amsterdam/NL

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; Bordeaux/FR, Talence/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

RPS 616a-8 11:57
Low skeletal muscle mass and postoperative morbidity in surgical oncology: a systematic review and meta-analysis
L. Weerink, A. van der Hoorn, B. van Leeuwen, G. de Bock; Almelo/NL, Groningen/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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<th>Keynote lecture</th>
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<td><strong>RPS 602a</strong> Contrast-enhanced breast MRI and beyond</td>
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<td>R. M. Trimboli; Milan/IT</td>
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<td>O. Puchkova; Moscow/RU</td>
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<td><strong>RPS 602a-K</strong> Keynote lecture</td>
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<td>J. Camps Guerrero; Valencia/ES</td>
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<td><strong>RPS 602a-1</strong> The additional utility of ultrafast MRI on conventional DCE-MRI in evaluating preoperative MRI of breast cancer patients</td>
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<td><strong>RPS 602a-2</strong> The usefulness of postoperative surveillance MR for women after breast-conservation therapy: focusing on MR features of early and late recurrent breast cancer</td>
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<td><strong>RPS 602a-3</strong> A systematic review on variability in studies of breast diffusion-weighted imaging for treatment monitoring</td>
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<td>K. van der Hoogt, R. J. Schipper, G. Winter-Warnars, L. C. Ter Beek, C. Loo, R. M. Mann, R. G. H. Beets-Tan; Amsterdam/NL</td>
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<td><strong>RPS 602a-4</strong> A novel model for the evaluation of breast DWI: is it possible to predict BI-RADS categories?</td>
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<td>Y. Selek; I. Durur Subasi; A. T. Ariok; B. Hekimoğlu; Ankara/TR, Istanbul/TR</td>
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<td><strong>RPS 602a-5</strong> Diffusion-weighted imaging for breast lesion detection and characterisation: additional value of synthetic higher b-values</td>
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<td><strong>RPS 602a-6</strong> Value of multiparametric MRI with dynamic contrast-enhanced and diffusion-weighted imaging in non-mass enhancing breast tumours</td>
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<td>M. A. Marin; D. B. Avendano; D. Leitner; F. Clausen; S. Thakur; P. A. T. Baltzer; M. S. Joehlson; E. A. Morris; K. Pinker-Domenig; Messina/IT, Monterrey, Nuevo Leon/MX, Frankfurt am Main/DE, Vienna/AT, New York, NY/US</td>
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**Cardiac**

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<tr>
<td><strong>RPS 603a</strong> Cardiomyopathies: functional assessment and deep phenotyping</td>
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<td>N. Galea; Rome/IT</td>
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<td>A. Jacquier; Marseille/FR</td>
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<td><strong>RPS 603a-K</strong> Keynote lecture</td>
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<td>M. Pirnat; Maribor/SI</td>
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<tr>
<td><strong>RPS 603a-1</strong> Similar but not identical: radiomic analyses of areas with late gadolinium enhancement in patients with ischaemic and non-ischaemic disease</td>
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<td>L. Baffonni, A. Cavalieri, R. Motta, B. Giorgi, R. Stra Mare, M. de Lazzari, M. Perazzolo Marra, E. Quaia, C. Giraudo; Montebelluna/IT, Padua/IT</td>
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<td><strong>RPS 603a-2</strong> Global longitudinal diastolic strain rate as an early marker for predicting adverse outcomes in hypertrophic cardiomyopathy by cardiac magnetic resonance feature tracking</td>
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<td>X. Chunchao, Z. Li; Chengdu/CN</td>
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<td><strong>RPS 603a-3</strong> Rare disease: cardiac risk assessment with MRI in patients with myotonic dystrophy type 1</td>
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<td><strong>RPS 603a-4</strong> Right ventricular involvement in Fabry's disease</td>
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<td>T. Emrich; S. Benz, I. A. Abidoye, C. Düber, L. Arash-Kaps, J. B. Hennermann, C. Kampmann, K.-F. Kreitner; Mainz/DE, Abo-Ekitt/NG</td>
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<td><strong>RPS 603a-5</strong> Texture analysis of cine CMR sequences in patients with dilated cardiomyopathy: may the radiomic signature predict the prognosis?</td>
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<td>N. Di Meo, L. Zanolini, G. M. Agazzi, L. Lupi, M. Ravanelli, D. Farina; Brescia/IT</td>
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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. Muscogori, 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. Abadia1, V. Virgini2, M. van Assen3, S. S. Martin1, A. Varga-Szemes1, U. J. Schoepf; 1Charleston, SC/US, 2Rome/IT, 3Utrecht/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

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
M. P. Engberg1, M. Versleijen, D. M. J. Lambregts, R. G. H. Beets-Tan, M. Tesselaar, M. J. Lahaye; Amsterdam/NL

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. Ingenerf, 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; Candriolo/IT

RPS 616b-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 90Yttrium-microspheres
M. Ingenerf, N. Fink, J. Sauerbeck, H. Ilhan, J. Ricke, C. Schmid-Tannwald; Munich/DE

RPS 616b-6 11:45
The impact of inter-reader contouring variability on textural radiomics of CRC liver metastases
F. Rizzato1, C. de Mattia2, F. Calderoni3, L. Vassallo4, V. Giannini4, A. Defeudis4, D. Regge5, A. Torresi6, A. Vanzulli7; 1Rho/IT, 2Milan/IT, 3Monasterolo di Savigliano/IT, 4Candiolo/IT, 5Segrate/IT

RPS 616b-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. Klump; Tübingen/DE

RPS 616b-8 11:57
Changes in tumour heterogeneity with tyrosine kinase inhibitor therapy in metastatic renal cell carcinoma: preliminary results from the STAR trial
A. Azam1, A. Jahangeer1, L. Gervais-Andre1, C. Kelly-Morland1, M. M. Siddique1, G. Cook1, F. Collinson1, V. Gohe1, J. Brown2; 1London/UK, 2Leeds/UK

RPS 616b-9 12:03
Patterns of progression under immunotherapy in metastatic kidney cancer
S. Mezghani1, B. Rance2, A. Simonaggio1, J. Deidier1, A. Bellucci2, M. Fiorini, S. Oudard3, Y. Van3, L. Fournier4; 1Boulogne-Billancourt/FR, 2Issy Les Moulineaux/FR

RPS 616b-10 12:09
Diagnostic performance of trimodality imaging follow-up in bladder cancer patients treated with preservation therapy
S. Ahmed; Cairo/EG

RPS 616b-11 12:15
Whole-body MRI: a ‘one-stop-shop’ for staging high-risk prostate cancer?
N. Ali1, P. Charters1, N. Burns-Cox2, P. Burn1; 1Bristol/UK, 2Taunton/UK

RPS 616b-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. Yaremenko, N. Rucheva, V. E. Sinitsyn; Moscow/RU

Breast

RPS 602b
High-risk situations in breast cancer
Moderators:
M. A. Lövbiksson; 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. Eriksson1, K. Czene1, S. Zackrisson2, P. Hall1; 1Stockholm/SE, 2Malmö/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, I. Polico, F. Caumo; Padua/IT
Abdominal Viscera

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. Arazi-Kleinman2, G. Bar On1; 1Holon/IL, 2Zeriffin/IL, 3Natanya/IL

RPS 602b-5 11:39
Six-month interval screening with mammography and ultrasound in BRCA mutation carriers who undergo annual MRI: does it improve cancer detection?
B. Musaie, 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. Yagil1, A. Shalmon1, M. Gottlieb1, D. Madorsky Feldman1, M. A. Ban David; 1Ramat Gan/IL, 2Tel Aviv/IL, 3Hershy/IL

RPS 602b-7 11:51
Ductal carcinoma in situ as seen on MRI in BRCA mutation carriers
R. Faerman, M. Brodsky, J. Weidenfeld, O. Halshok, A. Shalmon, M. Gottlieb, 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. Evans; 1Guildford/UK, 2Manchester/UK

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

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. Grueinseis2, I. L. Umutlu3, G. Antoch1, L. M. Sawicki; 1Düsseldorf/DE, 2Essen/DE

RPS 601b-2 11:31
Etiology of the liver stiffness assessed with ultrasound elastography: a cross sectional twin study
D. L. Tarnoki, M. O. Erdei, M. Piroska, A. Hernyes, H. Szabol, M. Fekete, A. Tarnoki, Budapest/HU, 1Linz/AT, 2Kaposvar/HU

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. Soutatos2, P. S. Zoumpoulis; 1Athens/GR, 2Kifissia/GR, 3Marousi/GR

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. Sartoni1, A. Souhami Amanou1, A. Calandra2, P.-E. Raoutou, F. Cauchy, V. Vilgrain1, R. Maxime1; 1Clichy/FR, 2Palermo/IT

RPS 601b-6 11:55
Liver stiffness and fatty liver quantification in high risk patients
I. Sporea, R. Mare, S. Nistorescu, A. Vite, R. Siri, 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. Renata, 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. Sy1, T. Wolfson2, A. Pecorelli3, T. I Delgado2, A. S. Boehringer2, R. Loomba2; 1San Diego/US, 2Rancho Santa Margarita, CA/US, 3Milan/IT

RPS 601b-9 12:13
Interobserver variability in the evaluation of magnetic resonance elastography in patients with fibrotic liver disease
M. W. Raudner1, D. Bencikova; S. Pöpper-Lang1, N. Bastati; K. Gräf2; G. Reiter2, S. Kannengiesser3, S. Trattnig1, A. B. Salsalama; 1Vienna/AT, 2Warsaw/PL, 3Graz/AT, 4Erlangen/DE

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. Kreisil, I. Sack2, A. Berzigoiti; M. O. Obmann; J. T. Heverhagen1, A. Christie1, A. T. Huber1, 1Berne/CH, 2Berlin/DE, 3Basel/CH

RPS 601b-11 12:25
Can TT-mapping serve as an alternative to MR-elastography in the staging of liver fibrosis?
S. Frein von Ulmenstein, S. Bogdanovic; H. Honcharova-Biletska, S. Blumen; A. Deibel1, C. Jüngst1, A. Weber; C. Gubler1, C. S. Reiner1; Zürich/CH, 2Gossau/CH
RPS 611a
Neurodegenerative diseases
Moderators:
J. Boban; Sremska Kamenica, Novi Sad/RS
B. M. Göraj; Nijmegen/NL

RPS 611a-1 11:15
Classifying white matter hyperintensities according to intensity and spatial localisation reveals a specific association with cognition
I. Melazzini1, V. Bordin1, S. Suri2, E. Zsoldos2, K. Ebmeier2, M. Jenkinson2, C. Mackay2, F. Sardanelli3, 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. Luo2, L. Shi1, D. Lew1, V. Mok1, 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. Shenohara1, T. Yoneda1, Y. Tatewaki1, B. Thyeau1, T. Nagasaka2, T. Mutoh1, H. Arai2, 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
N. A. Teichert1, C. Rubbert1, C. Mathys2, S. B. Eickhoff1, M. Südmeyer1, C. J. Hartmann1, B. Turowski1, A. Schnitzler1, J. Prudlo1; 1Düsseldorf/DE, 2Oxford/UK

RPS 611a-9 12:03
Histogram analysis of DTI metrics of grey and white matter in the cognitive decline of Parkinson’s disease
G. V. Glózcz1, L. G. Astrakas1, M. Chondrogiorgi1, S. Konitsiotis1, J.-P. Pruvot1, M. Argyropoulou1; 1Ioannina/GR, 2Lille/FR

RPS 611a-10 12:09
Measuring the midsagittal midbrain area in T1-weighted 3D MRI to differentiate between TDP-43-proteopathies (ALS) and tauopathies (PSP)
D. Cantré1, C. Koch, M. Dyeba, 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. Watanabe2, H. Tanaka3, H. Kato4, H. Adachi5, M. Mihara1, H. Mochizuki1, N. Tomiyama1; 1Osaka/JR, 2Otsu/JR, 3Suita/JP

RPS 611a-12 12:21
Neurite orientation dispersion and density imaging in the substantia nigra and striatum in early-stage idiopathic Parkinson disease
X. Zeng, Y. Xu, C. Ye, H. Yuan; Beijing/CN

RPS 608
Thyroid gland
Moderators:
E. Gotsiridze; Tbilisi/GE
T. Beale; London/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
J. Y. Lee1, S. L. Jung1, H. K. Lim2, J. H. Shin1, S. Y. Han1, J. E. Lee2; 1Seoul/KR, 2Bucheon/KR

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. Attan, P. Lebersant, K. Azam, Y. Azrak, N. Goldberg, L. Appelbaum; Jerusalem/IL

RPS 608-4 11:43
Radiological-pathological correlation of thyroid nodule ultrasound and cytology using the TIRADS and Bethesda classifications
S. Attan; 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; S. B. Grover, S. Patra, D. Chaukar, A. Dcruz; Mumbay/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’obrien; S. Wright, O. Hilmi, C. McArthur; Glasgow/UK

RPS 608-10 12:19
The size did matter: radiofrequency ablation for benign thyroid nodules
N. Kan, W.-C. Lin; Kaohsiung/TW
**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
T. Szczykutowicz1, B. Nett1, J. Tangi1, J. Hsieh1; Madison, WI/US, Waukesha, WI/US, Brookfield, WI/US

**RPS 613-2 11:21**

How does a deep learning image reconstruction algorithm affect image quality in CT abdominal imaging?
X. Liu1, J. Rong1, C. T. Jensen1, A. G. Chandler1; 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
C. Franck1, P. D. Deak2, G. Zhang3, F. Zanca4; Edegem/BE, Leuven/BE, Heverlee/BE

**RPS 613-4 11:33**

Equal CNR at thinner slice thicknesses enabled the use of a CE-marked deep learning reconstruction method for CT for reducing radiation exposure: a phantom study
N. Nagasawa1, K. Kitagawa1, K. Kubooka1, Y. Ichikawa1, A. Yamazaki1, H. Maki1, H. Sakuma1; Tokyo/JP

**RPS 613-5 11:39**

The potential of deep learning image reconstruction for CT reconstruction and hybrid-iterative reconstruction for ultrahigh-resolution CT: the impact of radiation dose on spatial resolution and noise texture
L. J. Oostveen1, M. M. Prokop1, F. de Lange1, I. Sechopoulos1; Leuven/BE, Nijmegen/NL

**RPS 613-7 11:51**

Impact of a deep learning-based reconstruction algorithm on pulmonary nodule detection in chest CT
C. Franck1, M. J. Spinholven1, A. Snoeck1, H. El Addouli1, S. Nicolay1, A. van Hoyweghen1, P. D. Deak1, F. Zanca2; Edegem/BE, Leuven/BE, Heverlee/BE

**RPS 613-8 11:57**

A comparison of advanced AI-based CT reconstructions by noise magnitude and centroid frequency ratios
T. Pan1, A. Hasegawa1; Houston, TX/US, Chapel Hill/US

**RPS 613-9 12:03**

Deep learning applied to low kV imaging in CT
T. Szczykutowicz1, B. Nett1, J. Tangi1, J. Hsieh1; Madison, WI/US, Waukesha, WI/US, Brookfield, WI/US

**RPS 613-11 12:09**

Image quality capabilities and dose reduction opportunities of a deep learning image reconstruction algorithm: a phantom study
J. Greffier1, H. Pasquier1, A. Hamard1, J. P. Beregi1, J. Frandon1; Nîmes/FRA, Buc/FRA

**RPS 613-12 12:15**

Towards 4D interventional guidance: reconstructing interventional tools from four x-ray projections using a deep neural network
E. Eulig1, J. Maier1, N. R. Bennett1, M. Knaup1, D. K. Hörndler1, A. Wang1, M. Kachelrieß1; Heidelberg/DE, Palo Alto/US, Nuremberg/DE

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**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. Gashonova; Moscow/RU

**RPS 607-1 11:25**

Contrast-enhanced ultrasound (CEUS) following renal cryoablation: potential and limits
I. Campe1, S. Sachs1, R. Ciabattoni1, M. A. Cova1; 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 adnexal 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
J. Rubenthaler1, S. H. Kim1, W. G. Kunz1, W. Sommer1, D.-A. A. Clevert1, M. F. Froelich1; Munich/DE, Frankfurt am Main/DE, Mannheim/DE

**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 Esther1, A. Roca Muñoz1, F. X. Aragon Tejada1, S. Aso Manso1, R. A. A. Barón Rodíz1, F. Garcia García1; Toledo/ES, Madrid/ES

**RPS 607-9 12:13**

Comparing computed tomography (CT) and contrast-enhanced ultrasound (CEUS) in the management of complex renal cysts: a single-centre experience
E. Gioiuli1, L. Angelini1, N. Civitareale1, A. Zago1, M. Cossi1, G. Piccoli1, N. Napoli2, S. Valerio2, M. Salemi2; Vittorio 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. Arya1, M. Arab Ahmadi1; Tehran/IR
RPS 604a-1 11:15 - 12:30 Darwin (Room D2)

**Chest**

**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

How to increase eligibility in MrgFUS (magnetic resonance-guided focused ultrasound surgery) to treat difficult cases of uterine fibroids (UFs): tips and tricks
L. P. Vazza; S. Iafrate, I. Capretti, F. Arrigoni, M. Di Luzio, S. Mascaretti, G. Mascaretti, C. Masicocchi; L'Aquila/IT

**RPS 604a-2** 11:31

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. Milanesi, M. Silva, V. R. Papapietro, E. Bacchini, G. Capretti, 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 telediagnosis 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/France

**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. Şengil; D. Kocakaya, C. Ilgin, 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. Wuys; M. Camerfinck, D. de Surgeloose, L. Vermeiren, D. Leulemans, C. 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

11:15 - 12:30 Descartes (Room D3)

**Interventional Radiology**

**RPS 609a**

**Lung and mediastinal interventions**

Moderators:
M. Krokidis; Cambridge/UK
L. Musayeva; Baku/AZ

**RPS 609a-1** 11:15

Bronchial artery diameter as a predictor of haemoptysis: a single-centre experience
B. S. R. Reddy; P. Chatterjee, K. Sunder, R. Kumar, V. Mazumdar; Chennai, Tamil Nadu/IN, Guwahati, ASSAM/IN, Chennai/IN

**RPS 609a-2** 11:21

Transpulmonary chemoembolisation (TPCE) and transarterial chemoperfusion (TACP) in patients with primary and secondary lung neoplasms: evaluation of apparent diffusion coefficient (ADC) values
T. J. Vogl; T. Hoppe, N. N. N. Naguib, N.-E. A. Nour-Eldin, T. Gruber-Rouh, L. Basten; Frankfurt am Main/DE

**RPS 609a-3** 11:27

Lung cancer CT-guided FNAC with rapid on-site evaluation (ROSE)
F. Fiore, L. D'acierno, V. Stoia, N. Martucci, R. D'angelo, F. Somma; Naples/IT

**RPS 609a-4** 11:33

Correlation between the length of embolisation material pulmonary arteriovenous malformation and the distal pulmonary hypoperfusion evaluated by spectral imaging in patients with HHT
J. Bizouerne, L. Cassagnes; Clermont-Ferrand/FR

**RPS 609a-5** 11:39

Endovascular treatment of haemoptysis: a study of failures and relapses

**RPS 609a-6** 11:45

Multiparametric evaluation of CT-guided local thermal ablation of inoperable lung tumours

**RPS 609a-7** 11:51

CT fluoroscopy-guided single-needle core biopsy of anterior mediastinal masses: retrospective analysis of accuracy and complications
G. Vatteroni; F. D'antuono, C. Sicuso, E. Lanza, D. Poretti, R. Lutman; Milan/IT, Rochetta S. Antonio/IT, Rozzano/IT, Pisa/IT

**RPS 609a-8** 11:57

The effect of an autologous blood clot seal to prevent and minimise the risk of pneumothorax in CT-guided lung and mediastinal biopsy: an initial experience
B. K. Choudhury; Guwahati/IN

11:15 - 12:30 Thursday
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
Keynote lecture
S. Vinnicombe; Cheltenham/UK

RPS 605b-1
Accelerating breast cancer screening using an abbreviated MRI protocol and artificial intelligence
X. Jing, M. Wielema, L. Cornlissenn, S. Zheng, J. Guo, P. Sijens, M. Oudkerk, M. Dorrius, P. M. van Ooijen; Groningen/NL

RPS 605b-2
Mammographic breast density classification and risk assessment using deep learning
M. Jie, M. Xu, X. Lin, S. Wu, Y. Zhang, Z. Cao, L. Huang, M. Wu, Y. Wang; Shenzhen/CN, Palo Alto/US

RPS 605b-3
Performance of radiologists versus a machine learning classifier for optoacoustic imaging of the breast
G. Menezes, S. Dykes, B. A. Clingman, A. T. Stavros; San Antonio, TX/US

RPS 605b-4
Detecting and delineating suspicious masses in contrast-enhanced mammography (CEM) using a deep learning workflow
M. Beuque, Y. van Wijk, H. C. Woodruff, W. Didaatalla, M. B. I. Lobbes, P. Lambin; Maastricht/NL

RPS 605b-5
Can artificial intelligence reduce the interval cancer rate in mammography screening?
K. Lang, S. Hofvind, A. Rodriguez Ruiz, I. Andersson; Malmö/SE, Oslo/Norway, Nyhøjne/NL

RPS 605b-6
Breast cancer detection by mammographic view with artificial intelligence in digital breast tomosynthesis

RPS 605b-7
Deep learning model used in mammographic breast density assessment
J. Tao, F. Yang, J. Liu; Wuhan/CN

Comparing the mammography screening performance of three external AI CAD algorithms and radiologists within a true population-based screening cohort
M. Salim, E. Wahlén, K. Dembrower, M. Eklund, K. Smith, F. Strand; Stockholm/SE

RPS 605b-9
Evaluating the feasibility of fully automated mammography image positioning assessments
M. Abdelkafi, N. Paquet, R. Duggan, N. Sharma, S. Hofvind, S. E. Iles; Halifax/Canada, Leeds/UK, Oslo/NO

RPS 605b-10
Differentiating diagnosis of benign and malignant breast lesions using ultrasound-derived texture analysis features and a machine learning approach
V. Romeo, R. Cuocolo, R. Apolito, A. Ventimigilia, A. Vitale, R. Buonocore, M. R. Argenzio, M. P. S. Maureen, M. Imbiaco; Naples/Italy, Salerno/Italy, Castellamare di Stabia/Italy, Pontecagnano Faiano/Italy

RPS 605b-11
Machine learning ensembled with deep learning model to classify density and detect lesions in mammography studies

RPS 614
Computed tomography: examination improvement

Moderators:
S. J. Foley; Dublin/IE
T. A. Yalynska; Kiev/UA

RPS 614-K
Keynote lecture
F. Zarb; Msida/MT

RPS 614-1
Lead shielding significantly reduces the dose to the breasts during head CT: a phantom study
N. Zalokar, N. Mekis; Slovenska Bistrica/Slovenia, Ljubljana/Slovenia

RPS 614-2
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. Upponi; Cambridge/UK

RPS 614-3
The factors associated with radiation dose variation in cardiac CT angiography

RPS 614-4
The accuracy of Hounsfield values with “artificial 120 kVp” reconstruction kernel on different tissues and kVp at multislice CT: a phantom study
M. Kusk, M. Vestergaard; Esbjerg/DK

RPS 614-5
40kV virtual mono-energetic image quality and optimisation of window settings in pancreas dynamic contrast enhancement
J. Xu, Y. Yang, R. Chang, Q. Han, X. Chen, H. Dong; Shanghai/China

RPS 614-6
Establishing DRLs for the most common CT procedures based on patients’ body mass indexes
N. Zalokar, M. Kukuljan, M. Karig, A. Diklic, N. Mekis; Slovenska Bistrica/Slovenia, Ljubljana/Slovenia
RPS 614-7 12:01
The influence of a scan projection radiograph sequence and
decentring on a total dose at thoracoabdominal CT: a phantom study
M. Kusk, M. B. Vestergaard; Esbjerg/DK

RPS 614-8 12:07
Dose outliers in computed tomography
L. Kuopusjärvi, M. Hanni, A. Kotiaho; Oulu/FI

RPS 614-9 12:13
Acceptable quality dose (AQD) for common CT examinations: a UAE
W. Elshami, M. M. Abuzaid, D. Z. Joseph, I. H. M. Elhag, M. A. Musallam; Odense/DK

RPS 614-10 12:19
Optimisation of post-processing parameters for abdominal forensic CT scans

RPS 614-11 12:25
A model-based iterative reconstruction with a lung image filter versus
filtered back projection and adaptive statistical reconstruction in chest CT: a comparable assessment of image quality

RPS 603b 11:15 - 12:30 Room M 1
Cardiac

RPS 603b Connecting the heart with the lungs and the rest of the body
Moderators:
I. Carbone; Rome/IT, P. Wieske; Berlin/DE

RPS 603b-K 11:15
Keynote lecture
M. Nedevska; Sofia/BG

RPS 603b Ventricular mass index for non-invasive treatment control of balloon pulmonary angioplasty in chronic thromboembolic pulmonary hypertension
A. Brosig, M. Richter, V. Bethke, A. Hasse, M. Richter, K. Tello, C. B. Wiedenroth, G. Krombach, F. Roller; Giessen/DE, Bad Nauheim/DE

RPS 603b Association of left and right ventricular strains with presence of pulmonary hypertension: a cine realtime feature-tracking study
V. Nijzhnikova, G. Reiter, U. Reiter, C. Kräuter, C. Reiter, G. Kovač, H. Olschewski, M. Fuchsjäger; Graz/AT

RPS 603b Atrial measurements: can they predict adverse events in patients with acute pulmonary embolism (PE)?

RPS 603b 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. Cipriani, E. Di Cesare, C. Masciocchi; L’Aquila/IT

RPS 603b 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/CN

RPS 603b 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 People living with HIV have diverse and independent forms of cardiac involvement: insights from cardiac magnetic resonance imaging
C. Arendt, D. Leitner, T. Wolf, A. Haberl, C. Stephan, T. J. Vogl; E. Nagel, P. de Leuw, V. Puntmann; Frankfurt am Main/DE

RPS 603b Selected clinical parameters and changes in cardiac magnetic resonantin in patients with rheumatoid arthritis and ankylosing spondylitis without clinically apparent myocardial injury
W. Tanski, P. Gaë, A. Chachaj, M. Sobieszczanska, R. Poreba, A. Szuba; Wroclaw/PL

RPS 603b 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 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

11:15 - 12:30 Room M 2
Interventional Radiology

RPS 609b Experimental
Moderators:
F. Pedersoli, Maastricht/NL

RPS 609b Validation of a dose tracking software for skin dose map calculation using on-phantom measurements with radiochromic films

RPS 609b Large biodegradable microspheres: evaluation using dynamic renal CT-perfusion in an experimental pig model

RPS 609b 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 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 Fabrication of Adriamycin/Fe3O4 gelatin microspheres via a high-voltage electrospaying method for embolisation
J. Li, J. Ji, C. Lu, N. Zhang; Lishui/CN

RPS 609b Identification of the effects on PD-1 and Tim-3 expressions and the function of T lymphocytes in tumour-bearing mice by RFA
S. Xu, T. Y. Huang, X. Y. Xie; Guangzhou, Guangdong/CN
RPS 609b-7 11:51
Low-dose CBCT based on optimised source-detector trajectories for C-arm
S. Hatamika1, A. Biguri1, G. Kronreif1, J. Kettenbach1, T. Russ2, W. Birkfellner3; 1Vienna/AT, 2Southampton/UK, 3Heidelberg/DE

RPS 609b-8 11:57
Phase-contrast imaging based on the microbubble monitoring of radiofrequency ablation: an ex vivo study
P. Haopeng1, H. Wei1, L. Jian1, T. Rongbiao1, W. Zhiyuan1, D. Xiaoai1, W. Qingbing1, W. Zhongmin1, C. Kemin1, 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. Lohöfer1, G. Kaisi1, E. Blemmersrieder1, P. Bohrer1, J. Werner1, R. Buchholz1, E. J. Rummeny1, R. Braren1, P. M. Paprottka1; 1Munich/DE, 2Münster/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. Fleckenstein1, F. Streitparth1, B. Gebauer1, D. Geisel1, C. D. Schmidt1, R. W. W. Günther1, W. M. Lidemann1, Berlin/DE

RPS 609b-11 12:15
Funnel-shaped catheter model decreases clot migration during mechanical thrombectomy
Y. Tanyildizi1, E. Payne1, T. Gerber1, L. Seidmann1, A. Heimann1, O. Kempski1, N. Keric1, M. A. Brockmann1, S. Kirschner1, 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. Kim1; Jeju-si/KR

11:15 - 12:30 Room M 3

Chest

RPS 604b 11:15
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. Neri1; 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. Yin1, N. Hong1; 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. Handa1, K. Tanizawa1, T. Oguma1, N. Tanabe1, T. Niwamoto1, H. Shima1, T. Kubo1, K. Togashi1, T. Hirai1; 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. Weng1; J. Hui1, H. Wang1, C. Lan1, M. Chen1, P. Pang2, M. Xu1, Z. Wang1, J. Ji1; Lishui/ CN, 2Hangzhou/CN

RPS 604b-5 11:43
3D computer-aided volumetry (CADv) system with AI system: a comparison of quantitative nodal component measurement accuracy and pulmonary nodule differentiation capability on repeated CT examination
Y. Ohno1, K. Aoyagi1, Y. Kishida1, S. Seki1, Y. Ueno1, A. Yaguchi1, T. Yoshikawa1; 1Yoyoake/JP, 2Ootawara/JP, 3Kobe/JP, 4Kawasaki/JP

RPS 604b-6 11:49
Objectively evaluating the labelling accuracy of the Stanford CExPert dataset: a multi-reader study
H. Mahajan1, R. S. Rajan1, V. K. Agarwal1, M. Murugavel1, V. K. Venugopal1, V. Mahajan2; 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. Younis1, K. Nye1, G. Rao1, T. Fischer1; 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. Son1, K.-H. Do1, G.-S. Hong1, K.-W. Jo1, K. P. Kim1, J. H. Yun1; 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. Wu1, H. C. Woodruff1, S. Sanduleau1, T. Refaee1, A. Jochems1, R. Leijenaar1, P. Lambin1; Maastricht/NL

RPS 604b-10 12:13
Development and validation of a deep learning-based model for automatic detection of tuberculosis on radiographs
D. Wang1, S. Wu1, H. Wang1, T. Zou1, Y. Sun1, S. Drago Gonzalez1, Y. Shen1; Beijing/CN, 2Wiesbaden/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. Stevenson1, J. Schuizer1, S. Rollison2, T. Machado3, A. Jones3, P. Julien-Williams1, J. Moss2, M. Chen1; 1Adelaide/AU, 2Bethesda/US

11:15 - 12:30 Room M 4

Neuro

RPS 611b 11:15
Multiple sclerosis
Moderators:
C. Giannì; Rome/IT
A. Rovira Cañellas; Barcelona/ES

RPS 611b-K 11:15
Keynote lecture
F. Barkhof1; Amsterdam/NL

RPS 611b-1 11:25
Brain atrophy in multiple sclerosis and clinically isolated syndromes: a 30-year follow-up
L. Haider1; K. Chung1, G. Birch2, S. Mangesius1, F. Prados2, O. Ciccarelli2, F. Barkhof3, D. Chard3; 1Vienna/AT, 2London/UK, 3Innsbruck/AT, 4Amsterdam/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. Seraq1, S. A. H. Hassanein1, 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
P. Antulov1, M. Kusk1, V. Antonov1, J. M. Christiansen1, M. Dawari1, E. M. H. Kruse1; 1Esbjerg/DK, 2Middelfart/DK

RPS 611b-5 11:43
Cervical cord atrophy in MS: in search of a threshold area — a meta-analysis
A. Guarnera1, C. C. C. Quattrocchi1, V. Di Lazzaro1, R. Papalia1, B. B. Beomonte Zobel1; Rome/IT
Abdominal Viscera

**RPS 611b-6** 11:49
Brain connectivity changes in CMTIA patients: a resting-state functional MRI study  
T. Peralta, G. Pontillo, S. Cocozza, R. Dubbioso, S. Tozza, F. Manganelli, M. Quarantelli, A. Brunetti;  
Giuli Giannano / Campania/IT, *Naples/IT*

**RPS 611b-7** 11:55
Investigation of brain structural plasticity in CMTIA patients: a combined machine learning and texture analysis approach  
E. A. Vola, G. Pontillo, S. Cocozza, R. Dubbioso, S. Tozza, F. Manganelli, M. Quarantelli, A. Brunetti;  
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. Cocozza, R. Cuocolo, G. Pontillo, L. Ugga, M. Petracca, R. Lanzillo, V. Brescia Morra, A. Brunetti;  
Naples/IT, *Scafati/IT*

**RPS 611b-9** 12:07
Impact of enhancement and lesion size on quantitative susceptibility mapping values of multiple sclerosis lesions  
Vienna/AT

**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 Andersen, S. Lasic, H. Lundelli, M. Nilsson, D. Topgaard, F. Szczepankiewicz, H. Roman Siebner, M. Blinkenberg, T. B. Dyrbj;  
Copenhagen/DK, *Lund/SE*

**RPS 611b-11** 12:19
MR planimetric measurements for diagnosis and outcome prediction of multiple sclerosis  
Innsbruck/AT, *Vienna/AT*

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  
M. Dioguardi Burgio, P. Garteiser, F. Julea, A. Abyzov, V. Paradis;  
Montpellier/FR

**RPS 601c-3** 11:27
Quantification of local 3D texture maps for detection of fibrosis in the liver  
W. Hamilton, S. Carey, B. E. Hoppel, Z. Afraz, F. Rogalla;  
Toronto/CA, *Vermont Hills, WI/US*

**RPS 601c-4** 11:33
Liver vein to cava attenuation: a simple parameter to increase predictive value of caudate-right lobe ratio and liver segmental volume ratio to detect significant liver fibrosis on abdominal CT scans  
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  

**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. Bican, G. Semmier, B. Simbrunner, T. Reiberger, A. Ba-Ssalama;  
Vienna/AT

**RPS 601c-7** 11:51
Multi-parameter magnetic resonance imaging for staging liver fibrosis and detecting macrophage polarisation  
Y. M. Lu, 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  
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. Bredt, 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. Obmann, A. Christie, A. Berzigotti, T. J. Everhagen, L. Ebner, C. Grani, A. T. Huber;  
Berne/CH

**RPS 601c-11** 12:15
Iron measurement by quantitative MRI-R2* at 3.0T and 1.5T  
J. Yamamura, S. Keller, R. Grosse, B. P. Schönnagel, Z. J. Wang;  
P. Nielsen, R. Fischer;  
Hamburg/DE, *Dallas, TX/US, Oakland, CA/US*

**RPS 601c-12** 12:21
Quantitative MRI characterisation of NASH in a dietary rodent model  
M. Dioguardi Burgio, P. Garteiser, F. Julea, A. Abyzov, V. Paradis, V. Vilgrain;  
Brussels/BE, *Paris/FR*

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. Bertolini; G. Vatteroni, F. Episcopo, A. Chiti, L. Balzarini;  
Milan/IT, *Pieve Emanuele/IT*

**RPS 605c-2** 11:21
Attitudes and perceptions of UK medical students towards artificial intelligence and radiology: a multicentre survey  
D. S. Poon, C. Sit, A. Azam, A. Amlani, K. Muthuswamy, R. Srivivasan, 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 Meirelles, G. D’ippolito;  
Sao Paulo/Brazil
How do expectations and attitudes towards artificial intelligence applications differ between radiologists and IT experts?
F. Jungmann, T. Jorg, R. Natalie, C. Düber, J. Stefanie, P. Mildendenber; Mainz/DE

A European-wide needs assessment to prioritise technical procedures for simulation-based education in radiology
L. Nayahangan; E. Albrecht-Bestle; L. Konge; B. Brkljacic; C. Catalano; B. B. Ertl-Wagner; K. Riklund; M. B. Bachmann Nielsen; Copenhagen/DK, Zagreb/HR, Rome/IT, Munich/DE, Umeå/SE

Experience diagnosis confidence in medical experts with different levels of artificial intelligence (AI): an international survey of 1,041 radiologists and residents
M. Huisman; E. R. Ranschaert; W. Parker; D. Mastrodicasa; M. Kočí; D. Pinto Dos Santos; T. Leiner; M. J. Willemin; Utrecht/NL, Turnhout/BE, Vancouver/CA, Stanford, CA/US, Palo Alto, CA/US, Cologne/DE, Menlo Park, CA/NL

Implementation of artificial intelligence: is the community ready? An international survey of 1,041 radiologists and residents
M. Huisman; E. R. Ranschaert; W. Parker; D. Mastrodicasa; M. Kočí; D. Pinto Dos Santos; T. Leiner; M. J. Willemin; Utrecht/NL, Turnhout/BE, Vancouver/CA, Stanford, CA/US, Palo Alto, CA/US, Cologne/DE, Menlo Park, CA/NL

Anticipated hurdles and incorporation into residency programs of artificial intelligence (AI): an international survey of 1,041 radiologists and residents
M. Huisman; E. R. Ranschaert; W. Parker; D. Mastrodicasa; M. Kočí; D. Pinto Dos Santos; T. Leiner; M. J. Willemin; Utrecht/NL, Turnhout/BE, Vancouver/CA, Stanford, CA/US, Palo Alto, CA/US, Cologne/DE, Menlo Park, CA/NL

The influence of AI-based computer-aided diagnosis systems on diagnosis confidence in medical experts with different levels of experience
J. P. M. Gawlitza; P. Friesl; P. D. A. Heinzl; A. Bücker; E. Jussupow; Hofburg/BE, Mannheim/DE

14:00 - 15:30 Room X

Student Session

S 7
My educational or social project at my university
Moderator: C. Stroszcynski; Regensburg/DE

A simplified method to estimate the energy spectrum for megavoltage photon beams by monoenergetic dose library
P. Chakraborty, H. Saitoh; Tokyo/JP

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. Wang, Z. Wang, X. Lu, Z. Jin; Beijing/CN, Shenyang/CN

Missed lung cancers on radiographs and CT
A. S. Lyslog, A. P. Parkar; Bergen/NO

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. Streekchenbach, M.-A. Weber, F. Meinel; Rostock/DE

The diagnostic accuracy of regadenoson perfusion cardiac magnetic resonance imaging in individuals with known or suspected coronary artery disease
A. Azzona; M. Roncal Redin; I. Soriaño; A. Paternain Nuñ, E. Zponda Casajus; G. Bastarraka Alemañ; Zizur Mayor/ES, Pamplona/ES

The establishment of a student sonography course: from zero to over 1,000 in 2.5 years
L. Müller, J. Weimer; Mainz/DE

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

3D printed models: the new revolutionary tool in medical education
A. S. Constantinescu; E. Licu, Voluntari/RO, Bucharest/RO

14:00 - 15:30 Coffee & Talk 1
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. Fontanella1, C. A. T. Manganiello1, M. Mancinelli1, A. Festi1, S. de Lucia1, B. Brogna1, S. Borrelli1; Benevento/IT, 2Naples/IT

RPS 710-10 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 711-1 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 712-15:00
Gastrointestinal stromal tumours (GISTs): an imaging perspective
P. Gupta1, V. Choudhary2; 1Jammu/IN, 2New Delhi/IN

RPS 713-15:06
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/CHN

RPS 714-15:12
Development and validation of a risk model based on deep learning for preoperative prediction of occult peritoneal metastasis in gastric cancer
D. Liu1, Z. Huang1, B. Wu1, P. Yu2; 1Chengdu/CN, 2Beijing/CN

RPS 715-15:18
Gastrointestinal stromal tumours (GISTs): the relationship between preoperative imaging features on contrast-enhanced computed tomography (CECT) and pathologic risk stratification
S. Guerri1, G. Danti2, G. Grazzini1, A. Masserelli1, S. Pradella1, V. Miele1; 1Bologna/IT, 2Florence/IT

RPS 716-14:40
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 717-14:40
Evaluation of the reproducibility abdominal compression with thermoplastic mask in adrotherapeutic treatment with carbon ions and respiratory gating
L. Anemoni, A. Mancin, C. M. I. Diegoli, A. Vai, V. Vitolò, F. Valvo, S. Tampellini, A. Barcellini; Pavia/IT

RPS 718-14:42
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. Fuji1, K. Doi1, J. Miyagawa1, N. Tamara1, M. Taniguchi1, Y. Fujinaga1; 1Matsumoto/JP, 2Willowbrook, IL/US

RPS 719-14:48
Safe administration of contrast media: adding shine to the shades of grey
R. Hassan, P. P. Wall, A. Chethan Kumar, S. Kānumukalakshinarayana, B. Singh, S. Gopalan, A. Nagadi, H. C. Chadaga, A. Kumar; Bangalore/IN

RPS 720-14:54
Systematic review and meta-analysis on risk factors and interventions to prevent contrast media extravasations in patients undergoing computed tomography
S. Ding, C. Campeanu, N. Richli, G. Gullo; Lausanne/CH

RPS 721-4:11:00
The individualisation of CT-protocols for suspected pulmonary embolism: a national survey
A. Rusandu, B. Dymbe, E. V. Mæland, J. R. Styve; Trondheim/NO

RPS 722-14:06
Stroke imaging: a multiphase CT angiography standard protocol for the improvement for hub-and-spoke hospital organisation
E. Stefani1, M. Centenaro2, L. Baldo2, E. Delazer2, M. Gamberotto2, G. Molena1, T. Nistor1; 1Conegliano/IT, 2Treviso/IT

RPS 723-14:12
Good practices for radiographers: patient installation and centring for brain-CTs
V. Berclaz, C. Chevallier, C. Bruguier, J.-B. Ledoux; Lausanne/CH

RPS 724-14:12
CT scan anthropometric study of the frontal sinus for sexual diagnosis: first results from a documented osteological collection (Portugal, 19th-20th centuries)
P. M. Martins1, R. C. M. C. R. Gaspar1, A. Silva1, B. Magalhães2; 1Aveiro/PT, 2Coimbra/PT

RPS 725-5 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 726-4:30
Evaluation of the reproducibility abdominal compression with thermoplastic mask in adrotherapeutic treatment with carbon ions and respiratory gating
L. Anemoni, A. Mancin, C. M. I. Diegoli, A. Vai, V. Vitolò, F. Valvo, S. Tampellini, A. Barcellini; Pavia/IT

RPS 727-4:36
Planning and verification of radiation exposure in head and neck radiotherapy treatment
M. F. N. Coelho, M. Mariano, J. Santos; Coimbra/PT

RPS 728-4:42
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. Fuji1, K. Doi1, J. Miyagawa1, N. Tamara1, M. Taniguchi1, Y. Fujinaga1; 1Matsumoto/JP, 2Willowbrook, IL/US

Radiography
RPS 702 Artificial intelligence, radiomics and more: part 1

Moderators:
O. H. Arponen; Tampere/FI
K. Pinker-Domenig; New York; NY/US

RPS 702-K Keynote lecture
B. Schulz-Wendland; Erlangen/DE

RPS 702-1 Breast cancer detection in mammography using artificial intelligence: a large-scale retrospective evaluation
K. H. Kim, H.-E. Kim, H. Nam, B.-K. Han, H. H. Kim, E.-K. Kim; Seoul/KR

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. Jansch, M. Mieskes, M. Hertlein, A. Hacker; Munich/DE

RPS 702-5 Mammographic case conspicuity: a comparison between a radiologist's assessment and a masking index
S. Hickman1, J. Mainprize2, R. Black1, J. Kaggie1, Y. Huang1, M. Yaffe1; Cambridge/UK, Toronto/CA

RPS 702-6 Acceptability of 3D printed breast models and their impact on the decisional conflict of breast cancer patients
L. Santiago, E. Arribas, B. E. Adrada, 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
S. Paciè, J. Lopez2, P. Chone2, T. Bertinotti2, P. Pillard4; Valbonne/FR, Newport Beach/US, Oakland/US, Paris/FR

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
A. D. Lauritzen1, M. C. von Euler-Chelpin2, E. Lynge2, I. Vejborg2, M. Nielsen2, M. Lillholm2; Kabenhavn/DK, Copenhagen/DK, Roedovre/DK

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. Jie1, M. Xu2, X. Lin3, Y. Zhang4, Z. Cao2, S. Wu2, L. Huang2, M. Wu2, Y. Wang2; Shenzhen/CN, Palo Alto/US

RPS 702-11 Workflow reduction and performance using an FDA cleared platform for mammography triage
A. Watanabe1, V. D. Lim1, L. N. Tanenbaum1; Manhattan Beach, CA/US, La Jolla/US, New York, NY/US

RPS 702-12 Mammographic breast density assessment using deep learning especially for Asian women: clinical implementation
J. Liu1, F. Yang2, J. Tao1, L. Shi2, J. Lv1; Wuhan/CN, Hangzhou/CN

RPS 702-13 Deep learning-based mass segmentation in mammograms
M. Jie1, M. Xu1, X. Lin1, Z. Cao2, Z. Yang2, S. Wu1, L. Huang1, M. Wu1, Y. Wang2; Shenzhen/CN, Palo Alto/US

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
C. Kräuter1, U. Reiter1, C. Reiter1, V. Nizhnikava1, M. Masana2, A. Schmidt1, M. Fuchsjaeger1, R. Stollberger1, G. Reiter1; Graz/AT, Barcelona/ES

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. Liu1, Z. Li2, C. Xia3, K. Diao4; Chengdu/CN

RPS 703-3 Academic challenge meets reality: the transfer of a cardiac ventricle segmentation algorithm to clinical data
C. Anastasopoulos1, P. Fulip, T. Akinci D’antonoli1, F. Isensee2, P. Haaf1, K. Maier-Hein3, J. Bremerich1, B. Stieltjes3, G. Sommer4; Basel/CH, Heidelberg/DE

RPS 703-4 Retro-gated compressed sensing cardiac cine imaging: sharper borders and accurate ventricular quantification in 60 seconds
B. Longere1, L. Grenier1, J. Pagniez1, V. Silvestri1, A. Simeone1, M. Schmidt1, C. Formani1, F. Pontani1; Lille/FR, Erlangen/DE

RPS 703-5 The role of strain analysis in patients with suspicious arrhythmogenic cardiomyopathy
G. Muscogiuri1, F. Ricci1, L. Fusini1, M. Guglielmo1, A. Baggiano1, A. I. Guaricci1, G. Cicala1, M. Pepi1, G. Pontone1; Milan/IT, Rome/IT, Parma/IT

RPS 703-6 Compressed sensing 4D flow assessment of parameters of left ventricular diastolic function
G. Reiter1, C. Reiter1, N. Jin2, F. Testud2, C. Kräuter1, D. Giese4, A. Trieb1, M. Fuchsjaeger1, U. Reiter1; Graz/AT, Chicago/US, Malmo/SE, Erlangen/DE

RPS 703-7 Extra-cellular volume (ECV) of the left and right ventricle as a marker to triage diastolic dysfunction
A. Kapoor1, G. Mahajan2, A. Kapoor2, 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. C. Halfmann, S. Benz, T. Leckebusch, T. Klimzak, M. Michael, M. Larisch, C. Düber, K.-F. Kreitner, T. Emrich; Mainz/DE

RPS 703-10 14:54
Global myocardial strains in pulmonary hypertension: association with severity of the disease
V. Nizhnikaya, G. Reiter, U. Reiter, C. Reiter, K. Kräuter, G. Kovacs, H. Olschweski, M. Fuchsjaeger; Graz/AT

RPS 703-11 15:00
Feasibility and value of right atrial strain in patients with inoperable chronic thromboembolic pulmonary hypertension (CTEPH)
I. A. Abidoye, M. C. Halfmann, S. Benz, T. Leckebusch, T. Klimzak, M. Michael; Mainz/DE

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
F. C. Laqua, P. L. Madsen, N. Hosten, R. Bülow, E. Crosbie, F. Gleeson, K. Karunasaagarar; Copenhagen/DK

RPS 703-13 15:12
Pressure-volume relationship by stress cardiovascular magnetic resonance: feasibility and clinical implications
A. Meloni, A. de Luca, C. Nugar, C. Cappelletto, G. Aquaro, C. Grigoratos, G. Todiere, A. Barison, A. Pane; Pisa/IT, Palermo/IT

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. Abidoye, C. Düber, K.-F. Kreitner, T. Emrich; Mainz/DE, Ado-Ekiti/Nigeria

CTiR 7-14:00 - 15:30 Room Y

CTIR 7 Clinical Trials in Radiology 2
Moderators:
F. J. Gilbert; Cambridge/UK
U. Mahmood; Oak Brook/US

CTIR 7-1 1:40
Diagnostic accuracy of dynamic contrast enhanced computed tomography in comparison with positron emission tomography in the characterisation of solitary pulmonary nodules: the SPUTNIK Trial

CTIR 7-2 14:10
Discussant
M. Oudkerk; Groningen/Netherlands

CTIR 7-3 14:15
Visibility of interval cancer on previous screening mammograms: comparison of digital mammography and digital breast tomosynthesis in population-based screening
P. Skaane, S. B. Brandal, S. Y. Yanakiev, E. E. Eben, T. Lie, R. Guilien; Oslo/Norway

CTIR 7-4 14:25
Discussant
P. Clausen; Vienna/Austria

CTIR 7-5 14:30
Multicenter prospective comparison of the TROcar versus SELDinger technique for percutaneous Cholecystostomy: the TroSelIC 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 Rodriguez; 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/Canada

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 14:00
Clinical utility of hybrid imaging with PET/CT/MRI
Moderators:
M. Gerwing; Münster/DE
M. Herranz; Shanghai/China

RPS 706-K 14:00
Keynote lecture
J. Ferda; Pizen/CZ

RPS 706-L 14:10
Dynamic 18F-FET PET as an independent prognostic factor in de novo oligodendroglioma
M. Unterrainer, F. Vettermann, B. Suchorska, J. Herm, W. G. Kunz, M. Niyazi, P. Bartenstein, J.-C. Tonn, N. Albert; Munich/DE

RPS 706-2 14:16
Comprehensive functional evaluation of the spectrum of multi-system atrophy with 18F-FDG PET/CT and 99mTc 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/India
68Ga-PSMA PET/CT: preliminary results
T. Sozen, L. Ö. Atay

Student Session

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 8-8 16:05
Coronary calcium scoring at 100 kV with tin filtration using a kV-independent reconstruction kernel

S 8-1 16:15
Evaluation of a tube voltage-tailored contrast media injection protocol for coronary CT angiography

S 8-2 16:25
Interventional cardiology: patient exposure to radiation and interoperator variability — a healthcare group investigation

S 8-3 16:35
Scattered radiation in mobile chest AP in ICU
M. Antikainen, M. Sarjanoja, K. Tuominen, T. S. Schroderus-Salo, A. Henner; Oulu/FI

S 8-4 16:45
Convolutional 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
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. Abdellhalim, M. Houseini, M. Elsakhawy, N. Abd Elbary, O. Elabed; Shebeen El-Kom/Egypt

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. Kiely, J. Saunders; Limerick/Ireland

MyT3 8-4: 16:12
Predicting response to therapy of locally advanced rectal cancer: radiomic analysis from MR imaging
M. Miclotta, G. Cappello; V. Giannini; A. De Feudis; S. Mazzetti; S. Cirillo; D. Regge; Turin/Italy, Candilo/Italy

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
A. Ahamed; Assiut/Egypt

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/Russia

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/China

MyT3 8-8: 16:28
Qualitative assessment in radiotherapy of lung cancer using gemstone spectral imaging
L. Weihsu, Y. Wang, F. Lin, Y. Lei; Shenzhen/China

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/India

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. Paladini, A. Borzelli; F. Pane; M. Spinetta; D. Negroni; A. Galbiati; L. Pericavale; Z. Falaschi; D. Zagaria; Novara/Italy, Naples/Italy

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/India

MyT3 8-12: 16:44
Integrated PET/MRI for therapy response assessment of patients with Ewing sarcoma: preliminary results
J. Grueneisen; M. Chodyła; B. M. Schaarzhanschmidt; Q. Martin; M. Forsting; K. Herrmann; L. Umutlu; Essen/Germany, Düsseldorf/Germany

MyT3 8-13: 16:48
Multi-parametric MRI approach for post-TACE HCC
M. Elmansy, M. Elrakhawy, M. A. El-adaly; Mansoura/Egypt

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/Ukraine

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. Khalastrthy, 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/China

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/Italy

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/China

MyT3 8-19: 17:12
Does whole-body PET/MRI of abdominal cancers offer additional findings compared to contrast-enhanced CT?
S. G. Gür, B. Köyuncu Sökmen; Istanbul/Turkey

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/India

MyT3 8-21: 17:20
Thermal effect of irreversible electroporation in pancreatic cancer

MyT3 8-22: 17:24
The prognostic value of neutrophil lymphocyte ratio (NLR) in patients treated with transarterial chemoembolisation with epirubicin particles for hepatocarcinoma
A. G. Chimenti; G. Zanirato Rambaldi; M. Giannotta, A. Rebonato; Bologna/Italy, Pesaro/Italy
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. Günaydın¹, C. Ünsal¹, A. B. Olcay¹, C. Bilgin¹, B. Hakyemez²; İstanbul/TR, ²Türkiye/Bursa/TR

RPS 909-2 08:36
MReqUS thalatomy: the potential value of periprocedural parameters as a predictive tool for evaluating tremor treatment outcomes
M. Martin¹, A. Gagliardi, E. Tommasino, M. Allevi, F. Bruno, F. Arrigoni, A. Catalucci, P. Sucapan, C. Masiocchi; 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. Berndt¹, T. Boeckh-Behrens¹, J. Kaesmacher¹, C. Zimmer¹, B. Friedrich¹, F. Mück¹, S. Wirth¹, C. Maegerlein¹; Munich/DE

RPS 909-4 08:48
Preliminary experience of endovascular embolisation of cerebral dural arteriovenous fistulas with SQUID 12
E. Lozupone¹, F. Trombatore¹, L. Miliona¹, F. D’argento², A. Alexandre¹, I. Valente¹, A. Pedicelli¹; Rome/IT

RPS 909-5 08:54
Radiation exposure of patients during interventional neuroradiology procedures
V. Opancina¹, R. Vojinovic³; 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. Shi¹, M. Yang¹, W. Wang¹; Shanghai/China

RPS 909-7 09:06
Automated contrast-uptake measurements on single-phase CT angiography for stroke triage
P. Reijder¹, D. Puh-Westerheide¹, L. Rotkopf¹, D. Apel¹, F. Dorn¹, S. Tiedt¹, M. P. D. L. Kellert¹, M. P. Fabritius¹, W. G. Kunz¹; Munich/DE

RPS 909-8 09:12
Prognostic value of semi-quantitative collateral assessment in the endovascular treatment of ischaemic stroke
M. V. M. Micelli¹, P. Palumbo¹, G. Bianchi¹, A. Izzo¹, F. Bruno¹, M. Varrassi¹, S. Carducci¹, A. V. Giordano¹, C. Masciocchi¹; Changhai/China

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’argento¹, C. Colosimo¹; Rome/IT, ²Taviano/IT

RPS 909-10 09:24
The clinical application of low-dose CT-guided craniocerebral puncture biopsy
Y. Lian¹, J. Dong¹, Z. Zhou¹, Z. Lu¹, Y. Pan¹; Chengzhou/China

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. Lu¹; T. Wei¹; Chengdu/China

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. Hofmeijer³, Y. Roos³, B. Roozenbeek¹, H. Lingsma³, D. W. J. Dippel¹, A. van der Lugt¹; 1Rotterdam/NL, 2Arnhem/NL, 3Amsterdam/NL

RPS 909-13 09:42
Repetitive transarterial chemoperfusion in recurrent malignant head and neck neoplasms: local response rate and survival
T. J. Vogl¹, A. Tröger¹, T. Stöver¹, T. Gruber-Rouh¹; Frankfurt am Main/DE

RPS 909-14 09:48
Mechanical thrombectomy using TIGER
I. Will¹, V. Maus¹, S. Fischer¹, 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. Pengfei³, J. M. Liu³, J. Liman³; M. N. Psychogios¹; Basel/CH, ²Göttingen/DE, ³Changhai/China

Interventional Radiology

RPS 905 Neuro-interventions

Moderators: V. Cantisani; Rome/IT

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-Oghli², R. Gerami³, S. Moradi², N. Sirjani²; Tehran/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; Kifissia/GR

RPS 905-3 08:42
A preliminary study of parametric imaging with a contrast-enhanced ultrasound to predict luminal A breast cancer
L. Tang¹; J. Jiang¹, M. Chen¹; Shanghai/China

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. Verde¹, V. Romeo¹, R. Cuocolo¹, L. Sarno¹, S. Migliorini¹, A. Stanzione¹, M. D’armiento¹, A. Brunetti¹, M. P. M. Maurea¹; Naples/Italy

RPS 905-5 08:54
Transfer learning radiomics based on multimodal ultrasound imaging for staging liver fibrosis: a pilot study
H. Ding¹; L.-Y. Xue¹, Y.-L. Zhu¹, W.-P. Wang¹; J.-H. Yu¹; Shanghai/China

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 Narvaez¹, F. Lubinus¹, Y. Arias¹, A. Ortiz¹; 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 Heuvel¹, A. van Ginneken¹, J. L. de Korte¹; Nijmegen/NL
RPS 905-8 09:12
Automatic segmentation of the right ventricle from an ultrasound video using a novel deep learning approach
M. Ghelich Oghli1, A. Alizadehshafii1, S. Moradi2, N. Sirjani1, A. Shabanzadeh2, P. Ghaderi1, I. Shiri1; Tehran/IR, 1Karaj/IR, 2Geneva/SZ

RPS 905-9 09:18
The accuracy of a CAD system to classify breast masses on ultrasound according to BI-RADS lexicon 5th edition
E. F. C. Fleury; Sao Paulo/BR

RPS 905-10 09:24
The classification of lymph node ultrasound images using texture analysis and machine learning
A. Bocoumi1, L. Chami1, A. Giron2, M. Lemahieu3, O. Lucidarme2, C. Nioche1; i. Buvat1, F. Frouin1, C. Pellot-Barakat1; Orsay/FR, 2Paris/FR, 3Gregy-sur-Yerre/FR

RPS 905-11 09:30
Ultrasound-based radiomics technology for assessing foetal lung maturity during pregnancy complications
Y. Fu; Shanghai/CN

RPS 905-12 09:36
Ultrasound-based radiomics approach: a potential method for the prediction of Ki-67 expression and differentiation grades in hepatocellular carcinoma
Y. Dong, Q. Zhang, Z. Yao, J. Yu, W. Wang; Shanghai/CN

RPS 905-13 09:42
Preoperative prediction of microvascular invasion in hepatocellular carcinoma: the application of a radiomic algorithm based on grey-scale ultrasound images
W. Wang1, Y. Dong1, L. Zhou1, W. Xia2, Q. Zhang2, X. Gao3; Shanghai/CN, 1Suzhou/CN

RPS 905-14 09:48
A deep learning approach for multi-structure segmentation in echocardiography images
S. Moradi1, A. Alizadehshafii1, M. Ghelich Oghli1, N. Sirjani1, A. Shabanzadeh2, P. Ghaderi1, I. Shiri1; Tehran/IR, 1Karaj/IR, 2Geneva/SZ

08:30 - 10:00 Room Y

My Thesis in 3 Minutes

MyT3 9
Artificial Intelligence and Machine Learning
Moderators:
F. Coppola; Bologna/IT
D. Pinto dos Santos; Cologne/DE

MyT3 9-1 08:30
To explore the value of CT radiomics in evaluating the biological behaviour of pancreatic cancer
Q. Gu; Changsha/CN

MyT3 9-2 08:34
Automated estimations of body weight prior to CT examinations using a 3D camera
M. S. May1, F. Geißler1, A. Wimmer1, M. Saake1, M. Kopp1, R. Heiß1, M. Uder1, W. Wuest1; Erlangen/DE, 1Forchheim/DE

MyT3 9-3 08:38
A pilot study of radiomics signature-based on biparametric MRI for the preoperative prediction extrathroidal extension in papillary thyroid carcinoma
S. Hu; X. Wang3; 1Wuxi/CN, 2Zhejiang/CN

MyT3 9-4 08:42
Ventriculoperitoneal shunt valve detection and identification using object detection with a faster RCNN
J. Haubold; A. Radbruch1, M. Forsting1, L. Umutlu1, F. Nensa1; Essen/DE, 1Heidelberg/DE

MyT3 9-5 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 9-6 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 9-7 08:54
Digitised patient history in computed tomography: data acquisition with mobile tablet computers
M. Kopf; F. Geißler, M. Wetzl1, M. Wiesmüller1, R. Heiss1, T. Allmendinger1, M. Uder1, M. S. May1; Erlangen/DE, 1Forchheim/DE

MyT3 9-8 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 9-9 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 9-10 09:06
Machine learning-based analysis of nasopharyngeal carcinoma: MRI radiomics for prediction of recurrence or metastasis
G. Bao; D. Luo, S. Dai, Y. Geng; Beijing/CN

MyT3 9-11 09:10
Radiomics on 18F-FDG PET and CT images can differentiate lymphomatous from metastatic lymphadenopathy
X. Ou1, Z. Bo1, J. Wang2, F. Pang; J. Wu, Z. Zhao, P. Cao, X. Ma2; Chengdu/CN, 1Nanjing/CN

MyT3 9-12 09:14
Segmentation of heart from chest x-ray images using U-net
L. A. Klarov, A. Timofeev, D. Zakharova, S. Permyakov, E. Nikiforov, D. Egorov; Yakutsk/RU

MyT3 9-13 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 9-14 09:22
Radiomics analysis of 18F-FDG PET/CT datasets for the prediction of therapy response of isolated limb perfusion in patients with soft-tissue sarcomas
J. Grueneisen1, M. Chodyla1, A. Demirciglu1, M. Forsting1, K. Herrmann1, O. Martin1, L. Umutlu1; Essen/DE, Düsseldorf/DE

MyT3 9-15 09:26
Deep learning-based evaluation of normal bone marrow activity in 68Ga-Naf PET/CT in patients with prostate cancer
S. Lindgren Belal1, O. Enqvist1, J. Ulen1, L. Edenbrandt2, E. Trägårdh1; Malmö/SE, 2Gothenburg/SE

MyT3 9-16 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. Chodyla1, J. Grueneisen1, O. Martin1, J. Haubold1, M. Forsting1, F. Nensa1, L. Umutlu1; Essen/DE, Düsseldorf/DE

MyT3 9-17 09:34
Clinical value of MRI texture analysis for differentiating solitary fibrous tumours/hemangiopericytoma from angiomatous meningioma based on ADC and enhanced T1WI images
S. Zhang, J. Cheng; Zhengzhou/CN

MyT3 9-18 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. Verhaegen; Maastricht/NL
MyT3 9-19 09:42
A combination of eight cortical morphologic neuroimaging biomarkers could effectively differentiate tinnitus patients from healthy subjects: evidence from the application of machine learning
H. Lv, Z. Wang, P. Zhao, Y. Liu; Beijing/CN

MyT3 9-20 09:46
The correlation of artificial intelligence-based CAD-RADS by coronary computed tomography angiography with breast arterial calcification on mammography
K. Wang, Z. Huang, J. Xiao, Z. Li, Y. Hu; Wuhan/CN

MyT3 9-21 09:50
Variations of standard quality control for clinical PET/MRI systems: a European perspective
A. Valldade, T. Beyer, R. Boellaard; Z. Chalampalakis; C. Comtat; L. Dal Toso; A. E. Hansen; J. Nuyts; I. Rausch; X. Chen; T. Xie

RPS 916
Oncologic Imaging

RPS 916-1 08:30
Keynote lecture
A. Radbruch

RPS 916-2 08:46
T2-FLAIR mismatch in grade II and III gliomas: fifty shades of mismatch?
A. Desagneaux, S. Grand, M. D. C. Pasteris, M. D. J. Boutonnat, S. Charara, C. Berthet, A. Kastler; Grenoble/FR

RPS 916-3 08:52
MRI diffusion kurtosis imaging and a location-specific analysis for paediatric glialoma grading
I. P. Voicu; A. Napolitano; M. Vinci; E. Miele; A. Carboni; A. Mastronuzzi; M. C. Pasteris; G. S. Colafati; Rome/IT; Chiari/IT

RPS 916-4 08:58
Tumour microvascular normalisation enhancing CAR-T immunotherapy to glioblastoma via MRI
X. Chen; T. Xie; Chongqing/CN

RPS 916-5 09:04
Cerebral blood volume measurement at tumour-microvascularity derived from local image variance of susceptibility-weighted imaging in glioblastomas: correlation with IDH mutational status
H. Wu; X. Zhou; W. Zhang; Chongqing/CN; Shanghai/CN

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/CN

RPS 916-7 09:16
18F-FET or 18F-FCH PET/CT in the primary diagnosis of low-grade glioma: a pilot study
M. Hödl; A. M. Krapan; A. T. Golubic; J. Nemir; G. Mrak; M. Zuvic; D. Huc; Olomouc/CZ; Zagreb/HR

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. Roccia; A. Quattrone; G. Fodero; V. Aiello; C. Bentucci; E. Mazzei; D. Laganà; Chieti/IT

RPS 916-10 09:34
The efficacy prediction of enzalutinib 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/CN

RPS 916-11 09:40
MRI radiomics: tumour marker at the pretreatment prediction of response to neoadjuvant chemotherapy of nasopharyngeal carcinoma
J. Sun; S. Chen; J. Ding; F. Shan; C. Huang; Shaoguan/CN; Stony Brook/CN

RPS 916-12 09:46
Dual-energy 4D-CT of parathyroid adenomas not clearly localised by sestamibi scintigraphy and ultrasonography: a retrospective study
M. Wosietschlag; O. Gimmi; K. Johannsson; G. Wallin; I. Garcia; A. Spangeus; Linköping/SE; Västervik/SE; Örebro/SE

RPS 1010a
Musculoskeletal

RPS 1010a-1 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
T. Lerch; G. Zeng; F. Schmaranzer; N. Gerber; K. Siebenrock; M. Tannast; Bern/CH

RPS 1010a-2 11:21
To test the ability of artificial intelligence to differentiate between benign and malignant soft tissue masses in ultrasonography
L. Perronne; B. Wang; R. S. Adler; Paris/FR; New York/US

RPS 1010a-3 11:27
Tumour margin infiltration in soft tissue sarcomas: prediction with 3T MRI radiomics: tumour marker at the pretreatment prediction of brain metastases?
J. Sun; S. Chen; J. Ding; F. Shan; C. Huang; Shaoguan/CN; Stony Brook/CN

RPS 1010a-4 11:33
Paediatric radiographic detection of the acute distal tibial fracture using trained AI-networks
Z. A. Starosolski; J. H. Kan; A. Annapragada; Houston, TX/US

RPS 1010a-5 11:39
Quantitative ultrashort echo time MRI (UTE-MRI) for the diagnosis of early cartilage degeneration: a comparison with T2 mapping
J. Yang; H. Shao; L. Wan; J. Du; G. Tang; Shanghai/CN; San Diego/US

RPS 1010a-7 11:45
Dixon or DWI: quantitative discrimination between malignant and acute osteoporotic vertebral fractures
R. Donners; M. M. Obmann; D. Boll; D. Harder; Basel/CH
RPS 1010a-8 11:51
Shape-based machine learning for three-dimensional phenotyping of the lumbosacral spine and dural sac: a prediction of Fibrillin-1 gene mutations pathogenic for Marfan syndrome

RPS 1010a-9 11:57
Radiology improving the diagnosis and management of patients suffering with Ehlers-Danlos syndrome. An upright biomechanical MRI study
F. W. Smith; London/UK

RPS 1010a-10 12:03
Can sacrum height predict body height, age, and sex? A large population-based MRI study
F. Yahya, D. Cantré, K. Thierfelder, M.-A. Weber, S. Langner; Rostock/DE, 2Roggentin/DE

RPS 1010a-11 12:09
The use of whole-body MRI in chronic recurrent multifocal osteomyelitis in children: our experience in 29 patients

RPS 1010a-12 12:15
Clinical validation of a deep learning-based bone age software: a feasibility study

11:15 - 12:30 Room C

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. Perkuhn, R. Shahzad, F. Thiele, P. Stavrinou, M. Schlamann, C. Kabbasch, J. Deverdun, E. Le Bars; Rostock/DE, 2Bratislava/SK

RPS 1011a-2 11:31
MRI characterisation of peri-operative brain haemodynamic alterations after awake surgery in diffuse low-grade gliomas
A. Coget, J. Deverdun, E. Le Bars, L. van Dokkum, F. Molino, N. Menjot de Champfleury; Montpellier/FR

RPS 1011a-3 11:37
MRI evaluation of targeted adoptive immunotherapy for gliomas using biotinylated adoptive T lymphocytes
H. Zhang, S. Wu, Q. Dingdou; CN, 1Shanghai/China

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. Wu, W. Jiang, X. Zhou, W. Zhang; 1Chongqing/China, 2Hangzhou/China, 3Shanghai/China

RPS 1011a-5 11:49
A non-invasive in-vivo evaluation of IDH mutation status using 3T MR edited spectroscopy in brain glioma patients

RPS 1011a-6 11:55
Topographical mapping of 436 newly diagnosed IDH wildtype glioblastomas with versus without MGMT promoter methylation
F. Incekara, S. R. van der Voort, S. Klein, M. J. van Den Bent, M. Smits; Rotterdam/NL

RPS 1011a-7 12:01
Discriminative validity of DSC perfusion MRI and DWI for IDH mutation status
E. Cindil, N. Erdovan, N. Dag, M. N. Cerit, H. N. N. Sendur, A. Y. Öner, E. T. Tali; Ankara/IR

RPS 1011a-8 12:07
Whole-brain apparent diffusion coefficient measurements correlate with survival in glioblastoma patients
A. Rulseh, J. Vymazal; Prague/CZ

RPS 1011a-9 12:13
Usefulness of dynamic contrast-enhanced perfusion MRI in the presurgical differentiation of IDH wild-type glioblastomas and metastasis

RPS 1011a-10 12:19
The predictive power of MRI in identifying the pathological grading of meningiomas
F. Ballati, P. Lomoro, S. Saccò, C. Paganeli, G. Buizza, L. M. Farina, A. M. Bacila Turcanu, A. Iannaffi, L. Preda; 1Pavia/IT, 2Milan/IT

RPS 1011a-11 12:25
TT-weighted dynamic contrast-enhanced MRI perfusion of chordoma: a biomarker and innovative follow-up imaging tool for assessing tumour response after proton therapy
A. Rajendran, N. Chidambaramanathan, F. Abubacker Sulaiman; Chennai/IN

11:15 - 12:30 Room X

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

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. Qi, S. Takao, H. Kato, H. Oh; Osaka, loc. Marzana/IT

RPS 1016-3 11:37
The effects of 8th edition TNM AJCC staging in breast cancers detected with a screening programme
A. Pittaro, G. Gennaro, V. Pasqualino, G. Romannucci, S. A. Montemezzi, F. Caumo; 1Padua/IT, 2Verona, loc. Marzana/IT, 3Verona/IT
RPS 1007-1 11:15
ADNEX MR scoring system in the characterisation of ovarian lesions: retrospective external validation of malignancy prediction accuracy
A. Solopova, U. Nosova, V. Bychenko; Moscow/RU

RPS 1007-2 11:21
Diagnostic value of individual MRI findings in abnormally invasive placenta
S. Sefidbakht1, P. Irpanour1, A. Teimouri1, E. Khobbazi1, Z. Gholami Bardeji1, F. Zarei1, P. Pishdad1, H. Vafaei1, B. Bijan2; Shiraz/IR, 2Sacramento, CA/US

RPS 1007-3 11:27
Comparative analysis of placental volume and vasculature in normal and foetal growth restricted (FGR) pregnancies
S. Jain, S. Hota, R. C. Shukla, M. Jain, T. Singh; Varanasi/IN

RPS 1007-4 11:33
The role of sonosalpingography (SSG) using normal saline in female subfertility: diagnostic or therapeutic?
P. Rastogi, N. Jain; Moradabad/IN

RPS 1009a-1 11:15
Endovascular percutaneous arteriovenous fistula creation: current evidence, technique, and single-centre experience
U. Salati, J. W. Ryan; Dublin/IE

RPS 1009a-2 11:21
Hydrophilic guidewire usage in facilitating catheter advancement during the endovenous treatment of varicose veins
K. Hwang, S. W. Park, J. H. Hwang, Y. W. Kwon, J. Min; Seoul/KR

RPS 1009a-9 12:03
The efficacy of cutaneous anaesthesia in endovenous laser ablation of the great saphenous vein.
K. Singh, R. Malik, A. Kumar, R. S. Gupta; Bhopal/IN

RPS 1009a-10 12:09
Assessment of the effectiveness of pelvic vein embolisation: a single-centre experience

RPS 1009a-11 12:15
Venous access devices and thrombotic complications incidence: implantation technique does matter

RPS 1009a-12 12:21
Assessment and treatment of low-flow venous malformations

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 1007-2 11:21
Diagnostic value of individual MRI findings in abnormally invasive placenta
S. Sefidbakht1, P. Irpanour1, A. Teimouri1, E. Khobbazi1, Z. Gholami Bardeji1, F. Zarei1, P. Pishdad1, H. Vafaei1, B. Bijan2; Shiraz/IR, 2Sacramento, CA/US

RPS 1007-3 11:27
Comparative analysis of placental volume and vasculature in normal and foetal growth restricted (FGR) pregnancies
S. Jain, S. Hota, R. C. Shukla, M. Jain, T. Singh; Varanasi/IN

RPS 1007-4 11:33
The role of sonosalpingography (SSG) using normal saline in female subfertility: diagnostic or therapeutic?
P. Rastogi, N. Jain; Moradabad/IN

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. Frölich1, M. Seidensticker1, J. Ricke1, F. Streitparth1; Munich/DE, 2Mannheim/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; 1Heidelberg/DE, 2Stuttgart/DE

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. Umutlu1, K. Herrmann1, L. M. Sawicki1, G. Antoch1, C. Buchbender1; Düsseldorf/DE, 2Essen/DE

RPS 1016-5 11:49
Pretreatment identification of non-responders to neoadjuvant chemotherapy in breast cancer patients
L. Vanocvanova1, I. Waczulkova, 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 study
S. Drasici1, A. Pecchi, 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
E. J. Garcia Prado1, E. Utrera, L. Reguera Berenguer, R. Saiz Martinez, E. Martin Illana, J. Blazquez Sanchez, T. Castellanos, R. Marquez, E. Grande Pulido; 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. Lu, Y. Ban, H. Du, X. Wang, X. Ding; 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. Huang1; 1Shaoquan/CN, 2Stony 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. Chaturvedi, A. S. Rao, S. Chauhan; 1New Delhi/IN

11:15 - 12:30 Coffee & Talk 1

RPS 1009a-4 11:33
Early inferior vena cava filter retrieval strategy in trauma patients: the role of pre-retrieval contrast-enhanced CT
R. M. Trimboli1, G. Di Leo2, L. A. Carbonaro2, F. Sardanelli2
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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. Freymann2, L. Maxwell2, T. P. Conrad2, E. Huang2, E. Sala2; Cambridge/UK, 2Bethesda/US, 3Rockville/US

RPS 1007-7 11:51
Pre-treatment MRI radiomics-based response prediction model in locally advanced cervical cancer
L. Russo1, G. Gui2, S. Persiani2, M. Miccò3, D. Boldrini3, D. Cusumano4, R. Autorino2, G. Ferrandina2, R. Manfredi2; 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. Mlynska-Bujny1, J. Pantke1, T. Kuder1, J. Rom2, H.-U. Kauczor3, H.-P. Schlemmer2, S. Bickelhaupt2; Heidelberg/DE

RPS 1007-9 12:03
Multiparametric MRI-based radiomics analysis for preoperative assessment of uterine cervical cancer aggressiveness
Y. Liu1, 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. Qi1, Y. He2, C. Lin3, X. Wang1, H. Zhou1, H. Xue1, Z. Y. Jin1; Beijing/CN

11:15 - 12:30 Room O

Breast

RPS 1002a 11:30 - 12:30
Contrast-enhanced x-ray imaging of the breast
Moderators:
G. G. Esen; Istanbul/TR
H. Preibisch; Tübingen/DE

RPS 1002a-1 11:35
Contrast-enhanced mammography (CEM): a systematic review and meta-analysis of diagnostic performance
A. Cozzi1, C. B. Monti1, C. G. Monaco1, M. Zanardo1, S. Schiaffino2, R. M. Trimboli3, G. Di Leo3, L. A. Carbonaro3, F. Sardanelli3; 1San Donato Milanese/IT

RPS 1002a-2 11:41
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. Trimboli3, G. Di Leo3, F. Sardanelli3; 1San Donato Milanese/IT

RPS 1002a-3 11:47
Diagnostic value of the delayed image in contrast-enhanced spectral mammography for the assessment of malignancy in BI-RADS 4 mammographic findings
A. Anakulova1, Z. J. Zhoidybay1, D. Kaidarova1, N. Inozemtseva1, Almaty/KZ

RPS 1002a-4 11:53
Diagnostic efficacy of contrast-enhanced digital mammography (CEDM) in breast cancer detection among women with dense breast in comparison to digital mammography and ultrasound
R. Sudhe1, V. Koppula1, K. Sannapareddy1; Hyderabad/IN

RPS 1002a-5 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. Gomaa1, M. M. H. Hanafy1, R. M. Kamal1, S. A. Mansour1, M. Hassan1, G. Mohamed2; Cairo/EG

RPS 1002a-6 11:45
Contrast-enhanced digital mammography: what is the added value in the diagnostic work-up of microcalcifications?
A. Francconeri1, D. de Benedetto1, C. Bellini1, M. C. Masciotra1, R. Trappasso1, 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. Tonelli1, D. de Benedetto1, F. Di Naro1, D. Crone1, V. Miele1, J. Nori1; Florence/IT

RPS 1002a-8 11:57
Preoperative evaluation of breast cancer: diagnostic performance of contrast-enhanced digital mammography compared to magnetic resonance imaging
C. Depretto1, A. Ligori1, A. Borelli1, G. Boffelli1, C. G. Monaco1, F. Cartia1, C. Ferranti1, G. Scaparrotta1; Milan/IT, 1Pavia/IT

RPS 1002a-9 12:03
Contrast-enhanced digital mammography (CEDM) for monitoring the response of breast cancers to neoadjuvant chemotherapy: a comparison with MRI
D. Bernardi1, A. Acquaviva1, M. Valentini1, V. Sabatino1, M. Pellegrini1, C. Fantò2; Milan/IT, 1Pavia/IT, 1Trento/IT

RPS 1002a-10 12:09
Contrast-enhanced spectral mammography with a compact synchrotron source
L. Heck1, M. Dierolf1, T. Sellerer1, K. Mechlem1, B. Günther1, S. Metz2, D. Pfeiffer2, 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. Berger1, M. Marcon1, T. Frauenfelder1; A. Boss1; Zurich/CH

RPS 1002a-12 12:21
Optimisation of photon-counting breast CT for spectral single-scan contrast-enhanced imaging: a phantom study
V. Ruth1, D. Kolditz1, C. Steiding1, W. A. A. Kalender1; Erlangen/DE

11:15 - 12:30 Studio 2020

Physics in Medical Imaging

RPS 1013 11:30 - 12:30
Advances in MRI
Moderators:
I. Sechopoulos1; Nijmegen/NI

RPS 1013-K 11:35
Keynote lecture
D. J. Lurie; Aberdeen/UK

RPS 1013-1 11:25
Motion correction for super resolution 2D multislice MRI: application to prostate
S. Riederer1, E. Borisch1, S. Kargar1, A. Kawashima1; Rochester, MN/US

RPS 1013-2 11:31
Dynamic contrast-enhanced magnetic resonance imaging during free breathing for hepatic lesions: clinical applicability and limitations
M. C. Langenbach1, L. Basten2, D. Mainz1, T. J. Vogl2, T. Gruber-Rouh2, J.-E. Schötz2, B. Kaltenbach2; Cologne/DE, 1Frankfurt am Main/DE
RPS 1012a

Paediatric musculoskeletal imaging: what’s new?

Moderators:
I. Barber Martínez; Espugues De Llobregat/ES
A. Kanavaki; Athens/GR

RPS 1012a-1
Bone marrow signal on whole-body MRI in healthy asymptomatic children: a prospective observational study establishing novel reference standards
E. V. Brandsdó, P. K. K. Zadig, K. Rosendahl, D. Avenarius, B. Nguyen, L. S. O. Müller, Oslo/NO, Tromsø/NO, Bergen/NO
Emergency Imaging

RPS 1017
Pulmonary embolism and other

Moderators:
N.N.
Z. Serafin; Bydgoszcz/PL

RPS 1017-K 11:15
Keynote lecture
G. Aviram; Tel Aviv/IL

RPS 1017-1 11:25
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

RPS 1017-2 11:31
Diagnostic performance of different low-dose levels for the detection of pulmonary embolism in computed tomography
M. T. Winkelmann, S. Afat, S. Walter, E. Stock, A. B. Brendlin, A. Othman; Tübingen/DE

RPS 1017-3 11:37
What about incidental findings on emergency CT scanners?
J. M. Grehan, M.-L. Ryan, J. Last, L. A. Rainford; Dublin/IE

RPS 1017-4 11:43
CT-aortography as the diagnostic tool to determine the instability of the arterial wall in abdominal aortic aneurysms
D. Tutova, R. Musilmov, L. Kokov; Moscow/RU

RPS 1017-5 11:49
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

RPS 1017-6 11:55
Present limitations of Artificial intelligence in the emergency setting: performance study of a commercial, computer-aided detection algorithm for pulmonary embolism
K. Mueller-Peltzer, G. Negrao de Figueiredo, C. G. Trumm; Angers/FR

RPS 1017-7 12:01
The role of a computer-assisted detection algorithm for the diagnosis of peripheral pulmonary embolism
A. Richter, F. Rengier, H.-U. Kauczor, T. F. Weber; Heidelberg/DE

RPS 1017-8 12:07
Dual-energy CT for wrist fracture patients with negative radiographs: a prospective diagnostic test accuracy study

RPS 1017-9 12:13
Pulmonary embolism: epidemiology, use of clinical probability scores, and correlation between clinical, radiological and analytical variables. A retrospective, single-centre study
A. J. Lainez Ramos-Bossini, M. D. C. Pérez García, F. Garrido Sanz, S. Suárez Moreno, R. Gámez López, M. Rivera Izquierdo; Granada/ES

RPS 1017-10 12:19
Efficiency and impact of CT in ICU patients with unknown inflammatory focus
R. Martin, J. A. Luetykens, A. Foran, D. K. Thomas, D. Kuetting; Dresden/DE, Bonn/DE

Radiographers

RPS 1014a
Radiographer role and professional challenges

Moderators:
G. N. Paulo; Coimbra/PT
M. SZcerzo-Trojanowska; Lublin/PL

RPS 1014a-1 11:15
Occupational burnout among radiographers: findings from a national survey
L. P. Ribeiro, A. M. Baltazar, K. B. Azevedo, A. F. Abrantes; São Brás de Alportel/PT

RPS 1014a-2 11:21
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

RPS 1014a-3 11:27
Advanced and consultant AHP practice: a vision for the future
N. Barlow, R. Milner; Rotherham/UK

RPS 1014a-4 11:33
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, Newtonabbey/UK

RPS 1014a-5 11:39
Awareness of medical radiation exposure among patients

RPS 1014a-6 11:45
An investigation of Irish radiographers’ attitudes and opinions towards taking on the role of referrers
K. Davies; Prosperous, Co. Kildare/IE

RPS 1014a-7 11:51
A national course for radiographers/radiographer students for acting as an RPO

RPS 1014a-8 11:57
Patient-centred care in diagnostic radiography: perceptions of service users, service deliverers, students, and educators
M. Hardy, E. Hyde; Bradford/UK, Derby/UK

RPS 1014a-9 12:03
Compassionate patient care in diagnostic medical imaging
J. Bleiker, K. Knapo; S. Morgan-Trimmer, S. J. Hopkins; Exeter/UK

RPS 1014a-10 12:09
The EFRS Research Hub: promoting research in radiography
L. A. Rainford, R. J. Toomey; Dublin/IE

RPS 1014a-11 12:15
Ethical evidence in radiology research
A. M. M. Quadrado, J. Figueiredo, A. Santos; Coimbra/PT

RPS 1014a-12 12:21
Postgraduate education in radiography: what is the bigger picture?
J. M. Grehan, M.-L. Ryan, J. Last, L. A. Rainford; Dublin/IE
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,

RPS 1012b-2
11:31
Oncologic imaging and H2O2: the PRIMAGE project helping childhood cancer research with artificial intelligence
L. Martí-Bonmati1, A. Alberich-Bayarri1, R. Ladenstein2, L. Cerda Alberich1,

RPS 1012b-3
11:37
Computer-aided detection (CAD) of pulmonary nodules in paediatric ultra-low-dose chest CT: a performance analysis
P. J. Kuhl1, H. Huliga1, T. A. Bley1, S. Veldhoen1, Würzburg/DE

RPS 1012b-5
11:43
The value of diffusion-weighted MRI in the response assessment of nephroblastoma
A. M. Hötker1, Y. Mazaheri2, A. Lollert3, J. Zheng1, S. Müller1, J. P. Schenk1,

RPS 1012b-6
11:49
Radiomic features as a marker of metastatic spread in Wilms’ tumours
G. Fichera1, L. Baffoni1, R. Simeone1, F. M. Murru1,

RPS 1012b-7
11:55
The feasibility and value of quantitative semi-automated diffusion-weighted imaging volumetry of neuroblastoma
S. Gassenmaier1, I. Tsiflikas1, J. Fuchs1, R. Grimm2, C. Urla1, M. Ebinger1,

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. Martí-Bonmati1,

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. She1, Fuzhou/CN

RPS 1012b-11
12:13
Post-transplant thymus restoration is a really good predictor of transplant outcomes
M. Cuccaro1, F. F. Zennaro1, R. Simeone1, F. M. Murru1,

RPS 1012b-12
12:19
Ultrasound-guided core biopsy with smear cytology: the fastest route for diagnosis in paediatric oncology
A. Ilivitzi1, B. Sokolovski1, A. Ben Barak1, S. Postovski1, M. Ben Aarush1,

RPS 1014b
An array of applications: ultrasound and dual-energy x-ray absorptiometry
Moderators:
T. Herlihy; Dublin/IE
N.N.
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. Malinvera Orodou1, A. Paternain Nuin1, A. Ezponda Casajus1, M. Calvo Irizarzadu1, A. C. Igual Rouilleau1, V. Suarez Vega1, R. Garcia de Eulate1, N. Perez1, P. Dominguez Echavarri1; Pamplona/ES, 2Madrid/ES

RPS 1008-2 11:21
Early radiologic manifestations of endolymphatic sac tumours in von Hippel-Lindau disease
J. F. Molto García1, H. J. Kim1, P. Chittiboina1, R. Lonser2

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 patterns
L. van der Meers1, C. Mitea1, J. Waterval1, D. Kunst2, A. Postma1; Maastricht/NL, 2Nijmegen/NL

RPS 1008-5 11:39
High-definition MRI for the evaluation of labyrinthic disorders
M. A. Esteves Da Cunha1, T. Gillanders2, M. Perez Akly2, L. A. Miquelini1, M. Calvo Imirizaldu1, A. C. Igual Rouilleault1, V. Suárez Vega2; 1Lausanne, 1CL, 2Barcelona/ES

RPS 1008-6 11:45
Superior vestibular neuritis: improved detection using FLAIR sequence with delayed enhancement (1 hour)
A. Venkataram1, T.-T. Huynh1, A. Charpion1, N. Meyer1, F. Veillon1; Strasbourg/FR

RPS 1008-7 11:51
The length of the organ of Corti in humankind: a meta-analysis study
B. Akay1, M. B. Eser1, M. T. Kalcıoğlu1, H. Ankaralı1; 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. Guarnera1, A. Romano1, E. Covelli1, G. Butera1, M. Barbara1, A. Bozza1; 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. Teleb1, N. Almansouri1; Alexandria/EG, 2Alahsa/SA

RPS 1008-10 12:09
A critical appraisal of the quality of vertigo practice guidelines using the AGREE II tool: a EuroAIm Initiative
F. M. Doniselli1, M. Zanardo1, A. Costa1, V. Cuccarini1, L. M. M. Sconfienza1, M. Mazzon Momparler1, A. Rovira Cañellas1, E. Arana Fernandez de Moya1; Milan/IT, 2Valencia/ES, 3Barcelona/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
RPS 1001a-11 | 12:25
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)

RPS 1002b | Interactions between breast radiology and pathology
Moderators:
E. Divjak; Zagreb/HR
M. Lesar; Bucharest/RO

RPS 1002b-K | 11:15
Keynote lecture
G. Kurtz; Lucerne/CH

RPS 1002b-1 | 11:25
A retrospective review of recalled microcalifications following breast cancer treatment
P. L. Gammack, M. Smith, M. Stewart; Edinburgh/UK

RPS 1002b-2 | 11:31
Representative calcifications revisited: how many sequential breast calcifications are adequate for definitive diagnosis?
W. Teh, R. Uzvolk, M. Morgan, J. Rees, R. Felton; London/UK

RPS 1002b-3 | 11:37
Prevalence of papillary lesions in solitary diluted duct visualised by mammography
V. J. Ayres, L. Ramalo, L. D. M. Pompei, E. F. C. Fleury; 1Santo André/BR, 2Bg/BR, 3Sao Paulo/BR

RPS 1002b-4 | 11:43
Role of contrast-enhanced imaging in the management of lesions of uncertain malignant potential (B3)
C. Bellini, A. Francioneri, G. Bicchieri, D. de Benedetto, F. Di Nardo, J. Nori, V. Miele; 1Florence/IT, 2Pavia/IT

RPS 1002b-5 | 11:49
Cone-beam CT features associated with HER2/neu overexpression in patients with primary breast cancer
Y. Zhu, Y. Zhang, Y. Ma, Z. Ye; Tianjin/CN

RPS 1002b-6 | 11:55
Triple negative and HER2-positive breast cancers found by mammography screening associate with excellent prognosis
J. Alanko, R. Vanninen, M. Tanner, J. Isola; 1Tampere/FI, 2Kuopio/FI

RPS 1002b-7 | 12:01
Ultrasongraphic features of triple-negative invasive breast carcinomas are associated with mRNA-IncRNA signature and risk of recurrence
J. Li, J. Zhou, Y. Jiang, Y. Liu, Z. Shi, C. Chang, Z. Shao; Shanghai/CN

RPS 1002b-8 | 12:07
Role of T2-weighted-fs sequences in breast MRI in the evaluation of peritumoral oedema as a predictive marker for breast cancer aggressiveness: results of a retrospective monocentric study
M. Gerboni, M. Durando, E. Regini, G. Bartoli, S. A. S. Gentile, C. Costanzo, G. Marricotti, L. Bergamasco, P. Fonio; 1Telm/IT, 2Settimo Torinese/IT

RPS 1002b-9 | 12:13
Role of 18F-FDG uptake on PET/CT in identifying androgen receptor expression in triple-negative breast cancer and the associated factors

RPS 1002b-10 | 12:19
Determination of morphological characteristics of primary breast cancer by focus diffusion-weighted MRI: comparison with conventional diffusion-weighted images and dynamic contrast-enhanced MRI
Y. Metin, N. Orhan Metin1, F. Tasci, O. Ozdemir, S. Kul, A. Babatürk, Ankara/TR, 2Rize/TR, 3Trebizond/TR

RPS 1002b-11 | 12:25
Application of delayed contrast-enhanced MRI for improved accuracy in the evaluation of breast lesions
D. Daniels, N. Nissan, D. Last, S. Sharabi, Y. Mardor, M. Sklar-Levy; Ramat Gan/IL

11:15 - 12:30 | Descartes (Room D3)

Interventional Radiology

RPS 1009b-1 | 11:15
Epidural pulsed radiofrequency (EPR) with access via sacral hiatus: therapeutic indications
F. Castelli, C. Di Lorenzo, A. M. Ragusa, B. Varsallona, A. Scavone, G. Scavone, M. V. V. R. Raciti2, P. Aliffi, G. Galvano; 1Verona/IT, 2Catania/IT, 3Baviana/IT, 4Pavia/IT

RPS 1009b-2 | 11:21
CT-guided screw fixation by interventional radiologists in traumatic injuries of the pelvic ring: screw accuracy placement and clinical outcome
F. Torre, C. Dekimpe, L. J. Pavan, O. Andreani, S. Guinebert, A. Prestat, N. Stacofa, D. S. Palominos Pose, N. Amoretti; 1Nice/FR, 2Paris/FR, 3Lyon/FR, 4Santiago de Chile/CL

RPS 1009b-3 | 11:27
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. Varrasi, M. V. M. Micelli, F. Arrigoni, A. Splendiani, C. Masciocchi; L’Aquila/IT

RPS 1009b-4 | 11:33
Systematic evaluation of low-dose MDCT for planning purposes of lumbosacral periradicular infiltrations
N. Solmango, K. Mei, S. Schön, I. Riederer, F. K. Kopp, C. Zimmer; Munich/DE

RPS 1009b-5 | 11:39
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; L’Aquila, M. Varrasi, M. Perri, A. Splendiani, F. Bruno, C. Masciocchi, A. Barrie, E. Di Cesare; L’Aquila/IT, 2San Giovanni Rotondo/IT

RPS 1009b-6 | 11:45
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. Bierma-Zeinstra, J. T. C. Baptista; Lisboa/PT, 2Bergschenhoek/NL, 3Rotterdam/NL, 4Munich/DE

RPS 1009b-7 | 11:51
Symptomatic low-grade lumbar isthmic lysis: trans-isthmic pars interarticularis screwing under CT and fluoroscopic guidance

RPS 1009b-8 | 11:57
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. Ballicu, L. Melis; Cagliari/IT
RPS 1009b-9 12:03
A 7-year experience of magnetic resonance-guided focused ultrasound surgery (MRgFUS) 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. Masciiocchi; L’Aquila/IT

RPS 1009b-10 12:09
Intravertebral cleft in percutaneous vertebroplasty: what else?

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. Masciiocchi; 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. Masciiocchi; L’Aquila/IT

GI Tract

RPS 1001b
Colon cancer: techniques for detection and staging

RPS 1001b-K
Keynote Lecture
M. J. Gollub; New York, NY, US

RPS 1001b-1 11:26
Investigating the use of CT colonographs in patients too frail for colonoscopy and their management outcome
S. C. Chin, G. Duncan; 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. Panvin, D. M. Bellini, M. Rengo, S. Vicini, I. Carbone, A. Laghi; Latina/IT, Sora/IT, Rome/IT

Cardiac

RPS 1003a
Emerging applications: cardio-oncology and athletes’ hearts

RPS 1003a-K
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 Cataldo, E. Cannizzaro, P. Palumbo, S. Torlone, M. C. de Donato, M. Latessa, S. Necozione, E. Di Cesare, C. Masciiocchi; L’Aquila/IT, Siena/IT

RPS 1003a-3 11:37
Decreased myocardial deformation in athletes correlates with the degree of LV hypertrophy

RPS 1003a-4 11:43
Coronary atherosclerosis in apparently healthy master athletes discovered during pre-participation screening: role of coronary CT-angiography (CCTA)
G. Royere, P. Marano, B. Merlino, L. Natale, G. Savino, R. Manfredi; Rome/IT

RPS 1001b-6 11:55
Evaluation accuracy of US compared to CT for the diagnosis of colonic diverticulitis: prospective single-centre study
S. E. Gabrieli, M. Dahan, N. Granat, H. Neiman, T. Gurvitz, E. Atar, G. Bachar; Petah Tikva/IL

RPS 1001b-7 12:01
The impact of mismatch repair status to the preoperative staging of local colon cancer

RPS 1001b-8 12:07
Effect of iterative model reconstruction algorithm on radiologists’ performance in CT colonography
Y. Lian, J. Dong, W. Cao, J. Gao, Zhengzhou/CN, Guangzhou/CN

RPS 1001b-9 12:13
Extra-peritoneal findings on dedicated DW-MRI for colorectal cancer patients considered for CRS-HIPEC
I. van ’t Sant, M. P. Engbersen, C. Gispen, D. M. J. Lambregts, N. F. M. Kok, A. G. J. Aalbers, R. G. H. Beets-Tan, M. J. Lahaye; Amsterdam/NL

RPS 1001b-10 12:19
Neural network-based diagnosis algorithm of appendicitis in patients with acute abdominal pain presenting to emergency department
J. J. Park, K. A. Kim, Y. Nam; Seoul/KR

RPS 1001b-11 12:25
Role of abdominal helical computed tomography in the diagnosis of adult intussception
D. Vo Tan, P. M. N. Do; Ho Chi Minh/VN

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Speaker supported by
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

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
R. Xu, H. Liu, Y. Guo, L. Chen; 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 Benedicts, A. Luporini, M. Ali, P. Sardanelli, F. Secchi; Milan/IT

RPS 1011b-5  11:39
Between and within rater agreement in white matter hyperintensity segmentation from manual rating and a supervised automated classifier (FSL-BIANCA)
L. Griffanti1, I. Mattioli1, V. Bordin1, I. Bertani1, S. Suri1, E. Zsoldsos1, K. Ebmeier2, C. Mackay1, G. Zamboni2; Oxford/UK, 3Modena/IT, 4Milan/IT

RPS 1011b-6  11:45
A comparison of different radiomics models in the prediction of haematoma 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. Tanenbaum1; W. Gibbs2; S. Bash2; L. Wang2; H. Gandhi2; P. Gulaka3; A. Shankaranarayanan2, T. Zhang2; Riverside, CT/US, 3Pasadena/US, 4Los Angeles/US, 5Palo Alto/US, 6Waukeisha, WI/US, 7Menlo Park, CA/US

RPS 1011b-9  12:03
Automated expert level localisation of perivascular spaces in the centrum semiovale and the basal ganglia

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. Maino1, D. Ippolito1, S. Lombardi1, L. Riva1, C. R. G. L. Talei Franzesi2, S. Sironi1; 1Monza/IT, 2Milan/IT, 3Bergamo/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. Shahzad1, L. Pennig1, L. Goertzi2, F. Thiele1, M. Perkuhn1, J. Borggreve1; 2Cologne/DE, 3Mannheim/DE, 4Aachen/DE

RPS 1011b-12 12:21
Morphometry: a way to facilitate the diagnosis of dementia?
P. Malmierca Ordoqui1, A. Paternain Nuin, M. Calvo Imirizaldu, A. C. Igual Rouilleault2, B. Echeveste, M. Riverol, P. Dominguez Echavarri, M. A. Fernandez Seara, R. Garcia de Eulate; Pamplona/ES

RPS 1005a-1  11:15
Differentiating head and neck paraganglioma versus schwannoma using texture analysis: a preliminary analysis
A. Ghosh, S. R. Mall, A. S. Bhalla, S. Manchanda, D. Kandasamy; New Delhi/IN

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  11:27
Quantitative ultrasound texture analysis of the foetal lung versus radiographs
N. Osman; Miniya/EG
Abdominal Viscera

RPS 1001c

Liver imaging and beyond: giving answers to clinical questions

Moderators:
R. Dežman; Liubljana/SI
A. Wetter; Essen/DE

RPS 1001c-1

Long-term evolution of hepatocellular adenomas at MR imaging follow-up
F. Vennuccio1; R. Maxime1; M. Dioguardi Burgio2; F. Cauchy1; S. Dokmak1; D. Valla1; J. Zucman-Rossi1; V. Paradis2; V. Vilgrain1;
1Palermo/IT, 2Clichy/FR, 3Paris/FR

RPS 1001c-2

Prediction of histopathological growth patterns by radiomics and CT-imaging in patients with operable colorectal liver metastases: a proof-of-concept study
H. P. A. Starmans1; F. E. Buism1; W. Fillemsen1; S. R. van der Voort1; D. J. Grünhagen1; P. B. Vermeulen1; C. Verhoeof1; S. Klein1; J. J. Visser1;
1Rotterdam/NL, 2Antwerp/BE

RPS 1001c-3

MRI of atypical liver haemangioma: significant imaging features to differentiate accurately from cholangiocarcinoma
R. Boixo, R. S. Dwarkasing, W. Fillemsen, G. Krestin;
Rotterdam/NL

RPS 1001c-4

New IVIM parameter PDR (perfusion/diffusion ratio) in discrimination of benign and malignant focal liver lesions
Warsaw/PL

RPS 1001c-5

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. Donadon1; E. Lanza1; B. Branciforte1; R. Musgrass2; C. Lisi1; V. Pedicini1; D. Poretti1; L. Balzarini1; G. Torzilli1; Rozzano/IT, 2Pieve Emanuele/IT

RPS 1001c-6

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

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. Giovagnoni; Ancona/IT

RPS 1001c-8

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

Can CT textural analysis reliably differentiate peritoneal tuberculosis from peritoneal carcinomatosis?
N. Khan, M. Awaiss; Karachi/PK

RPS 1001c-10

Assessment of peritoneal carcinomatosis using iodine overlays from spectral detector computed tomography

RPS 1001c-11

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

Distinguishing benign from malignant focal liver lesions (FLL) using the apparent diffusion coefficient (ADC): impact of post-processing on the diagnostic accuracy?
Musculoskeletal

RPS 1010b
Hip, pelvis and lower extremity

Moderators:
P. D. Afonso; Lisbon/PT
T. J. Dietrich; St. Gallen/CH

RPS 1010b-1 11:15
3D structural parameters predict future total hip replacement better than current 2D radiographic standards: an AGES-Reykjavik study
T. Turmezei, G. M. Treece, A. H. Gee, S. Sigurjónsson, H. M. M. Jónsson, T. Aspelund, V. Gudnason, K. E. S. Poole; 'Cambridge/UK, 'Reykjavik/IS, 'Kopavogur/IS

RPS 1010b-2 11:21
CT assessment of muscle mass and hip function for a feasibility study

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. Budair, M. J. H. Al-Tibi, T. Boutefnouchet; Birmingham/UK

RPS 1010b-4 11:33
Potential of susceptibility-weighted imaging for the reliable assessment of angle measurements reflecting hip morphology
S. M. Böker, L. Adams, U. L. Fahlenkamp, B. Hamm, M. R. Makowski; Berlin/DE

RPS 1010b-5 11:39
Equivalence between MRI-based synthetic CT and conventional CT in the morphological assessment of the femoracetabular joint
M. C. Florkow, K. Willemsen, F. Zijlstra, C. Wismans, M. van der Wal, H. Weinars, M. van Stralen, R. Sakkers, P. R. Seevinck; 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. Stuivenberg, R. H. H. Wellenberg, L. van de Riet, I. M. Nijholt, B. van der Wal, E. Mascher, H. van Gils, F. Zijlstra, C. Wismans, M. van der Wal, H. Weinars; Zwolle/NL, 'Berlin/DE

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. Klengel, H. Steinke, P. Pieroh, A. Höch, T. Denecke, C. Josten; Berlin/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. Ozdemir, T. Yıldırım, L. Karaca, A. Sağır Kahraman, Ü. Aydingöz; 'Malatya/TR, 'Ankara/TR

RPS 1010b-11 12:15
Glycosaminoglycan chemical exchange saturation transfer imaging of the talocrural joint in patients with osteochondral lesions and healthy volunteers

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 study

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. Naiz, J. Schuhmacher, P. Zingg, M. Sladem, M. Abu Baker, J. T. Everhagen; Berne/CH

RPS 1005b-2 11:21
ILIS: an intelligent imaging layout system to realise automatic imaging-report standardisation and to optimise intra-interdisciplinary clinical workflow
Y. Wang; Nanjing/CN

RPS 1005b-3 11:27
Machine learning-based assistance to context-sensitively suggest ASPECT score during the reporting of neuroradiological emergencies
C. G. Cho, A. Junge, B. Kämpgen, V. Saase, A. Ullert, E. L. Gonzalez, T. Ganslandt, H. Wenz; M. E. Maros; '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. Maros, A. Junge, V. Saase, C. G. Cho, B. Kämpgen, C. Groden, T. Ganslandt, H. Wenz; M. E. Maros; 'Mannheim/DE, 'Rimpar/DE

RPS 1005b-5 11:39
Automating quality control for standardised structured radiology reports using text analysis
C. Thouy, D. Dhrangadhariya, D. Fournier, H. Müller, H. Brat; '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. Mahajan, N. S. Batta, S. Gupta, V. K. Venugopal, H. Mahajan, M. Murugavel; New Delhi/IN

RPS 1005b-7 11:51
AI-based understanding and visualisation of spinal MRI reports

RPS 1005b-8 11:57
Radiology report generation using pointer networks: a step towards radiology report standardisation
A. Kharat, J. Tandale, A. Ahmad, R. Lokwani, A. Pant, A. Jaju, K. Sajo, A. Patil, 'Maharashtra/IN, 'Pune/IN
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. Venugopal, N. Kumar, V. Jagannatha, V. Mahajan, H. Mahajan, S. Rajani, A. Shastry, 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. Jorg, B. Kampgen, P. Mildenberger, C. Düber, P. Mildenberger, F. Jungmann; 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. Cirtsis, T. Frauenfelder, C. Rossi, A. Boss, 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. Celeng; Utrecht/NL

RPS 1003b-1 11:25
Morphometric and subjective frailty assessment in transcatheter aortic valve implantation
M. Giannoudi, M. A. Wadudd, M. Drozd, T. Slater; P. P. J. Sucharitkul, D. Blackman; J. Scott; 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. Gac, B. Kedzierski, P. Macek, G. Mazur, R. Poreba, K. Pawlas; Wroclaw/PL

RPS 1003b-3 11:37
CT-coronary angiography in high-pitch-TAVI-planning-CT: why it rarely works

RPS 1003b-4 11:43
Sinus of Valsalva thrombosis detected on computed tomography after transcatheter aortic valve replacement

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 Boogert, J. Vendrik, J. Gunster, M. van Mourik, B. Claessen, F. van Kesteren, N. R. Planken, J. Baan, J. Henriques; Amsterdam/NL

11:25 - 12:03

RPS 1003b-6 11:55
Cardiac computed tomography versus transoesophageal echocardiography in preoperative sizing of ostium secundum atrial septal defect prior to transcatheter closure

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. Nicoletti, A. Palmasino, D. Vignale, L. Pannone, C. Colantoni, A. Del Maschio, F. de Cobelli, A. Esposito; Milan/IT

RPS 1003b-8 12:07
Predictors of cerebral embolisation after percutaneous transfemoral aortic valve implantation: a RETORIC substudy
F. L. Suhan, A. Varga, B. Szilveszter, J. Karady, A. Panajotu, A. Bartykowskzi, A. I. Nagy, B. Merkely, P. Mauroovich-Horvat; 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

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)

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. Laukamp, S. Dastmalchian, L. Ciancibello, C. Colantoni, D. Negru; Iasi/RO

14:00 - 15:30 Room X

Student Session

S 11
My scientific paper in the field of neuroimaging
Moderator:
D. Negru; last/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. Shaul, B. Grieb, S. Sapid, S. Uppala, J. M. Gomori, R. Katz-Brull; 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 Mokhtari, A. Afshar; Tabriz/IR, Urmia/IR

S 11-3 14:25
Time-dependent cardiovascular effects of intra-arterial milrinone and nimodipine application in cerebral vasospasm

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. Krupa, I. Kuczbala, P. Brzegowy, A. Urbanik; Cracow/PL

S 11-5 14:45
Stenting of intracranial stenosis in acute stroke: single-centre experience from the last decade
M.-S. Schüngel, S. Schob, K.-T. Hoffmann, U. Quaschling; Leipzig/DE
RPS 1113-8 14:52
The probability and impact of a high radiation dose in patients undergoing CT examinations

RPS 1113-9 14:58
First SSDE reference values for paediatric head CT examinations
A. S. L. Dedulle, K. Houbrechts, N. Fitousi, J. Jacobs, H. Bosmans; Leuven/BE

RPS 1113-10 15:04
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

RPS 1113-11 15:10
Image quality evaluation of a new high-resolution 3D digital breast tomoscopic (DBT) imaging system
J. C. O’Driscoll; E. Ranahan, M. F. M. McEntee, J. McCullagh; *Cork/IE, *Sydney/AU

RPS 1113-12 15:16
The use of automatic software for quality controls to detect defective phantoms
G. Gennaro, F. Caumo; Padua/IT

RPS 1113-13 15:22
The evaluation of the quality of education in courses on radiation protection in Germany
P. Strauß; Münster/DE

14:00 - 15:30  Coffee & Talk 2

Vascular

RPS 1115
Pulmonary arteries, veins, aorta, carotid and lymphatics

Moderators:
N.N.
A. Van Der Lugt; Rotterdam/NL

RPS 1115-1 14:00
Response to balloon pulmonary angioplasty in treated versus untreated pulmonary arteries in CTEPH patients

RPS 1115-2 14:06
Pulmonary artery enlargement is independently associated with 1-year mortality in transcatheter aortic valve replacement patients: a retrospective longitudinal study

RPS 1115-3 14:12
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

RPS 1115-4 14:18
The results of an ultrasound vein valve study change current experience.

A feasibility study of virtual non-contrast imaging derived from single-source fast kVp-switching dual-energy CTAs in patients with aortic dissection

High-frequency 3D lumen volume ultrasound is a sensitive method to detect early aneurysmal changes in elastase-induced murine abdominal aortic aneurysms

Sex differences in vulnerable plaque composition and morphology in patients with mild-to-moderate carotid artery stenosis

Inguinal lymphadenopathy as a predicting factor for primary amputation in patients after endovascular treatment

The effect of different compression stockings on venous malformations: a systematic assessment of morphology and quality of life

The results of an ultrasound vein valve study change current saphenous therapy

Chest

New applications of advanced CT and MRI

Moderators: N.N.

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

Pulmonary MR imaging with ultra-short echo time (UTE): a comparison of vaporabilities for nodule detection and lung-RADS classification with low- and standard-dose CTs

Functional MRI diffusion and chemical shift imaging in the assessment of anterior mediastinal masses

A comparison of capability for therapeutic effect prediction between CEST imaging and FDG-PET/CT in non-small cell lung cancer patients with chemoradiotherapy

Non-contrast-enhanced assessment of lung perfusion in patients with cystic fibrosis during respiratory tract exacerbation using Fourier decomposition magnetic resonance imaging (FD-MRI)

Repeatability of the phase-resolved functional lung (PREFUL) MRI derived ventilation and perfusion dynamics in COPD and healthy controls

Acquiring CT scans in different respiratory phases in patients with pulmonary emphysema: a comparison of quantitative CT analysis and clinical data

Chest MRI in cystic fibrosis and chronic obstructive pulmonary disease: reproducibility and comparison with pulmonary function testing

Dual-energy CT iodine mapping and virtual monochromatic series applications in the diagnosis of endoleak after endovascular aortic repair (EVAR) planning

The incidence of penetrating aortic ulcer (PAU) as a cause for non-aneurysmal rupture of the abdominal aorta: a single-centre experience

An evaluation of the changes of renal blood flow before and after an operation in patients with aortic dissection

Dual-energy CT iodine mapping and virtual monochromatic series applications in the diagnosis of endoleak after endovascular aortic repair (EVAR) planning

The incidence of penetrating aortic ulcer (PAU) as a cause for non-aneurysmal rupture of the abdominal aorta: a single-centre experience

An evaluation of the changes of renal blood flow before and after an operation in patients with aortic dissection
RPS 1104-11 15:00
Measuring ventilation inhomogeneity in cystic fibrosis using unenhanced functional 3D-UTE MRI
J. F. Heidenreich1, A. Weng1, C. Metz2, T. Benkert3, H. Hebestreit1, T. A. Bley2, H. Köstler1, S. Veldhoen1, Würzburg/DE, Erlangen/DE

RPS 1104-12 15:06
Radiomic features: the biomarker used for distinguishing EGFR DEL19 and L858R sensitising mutation subtype
J. J. Li1, Q. Weng1, H. Wang1, J. Hui1, C. Lan1, M. Chen1, P. Pang2, M. Xu2, Lishui/CN, Hangzhou/CN

RPS 1104-13 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 Llano1, A. Renilla1, Oviedo/ES, Mieres/ES

RPS 1104-14 15:18
A comparison of quantitative lung parenchyma and airway parameters in low and ultra-low dose computed tomography
O. Weinheimer1, L. Yu1, J. G. Fletcher2, M. O. Wielputz1, C. P. Heusel1, H.-U. Kauczor1, C. J. Galban3, T. E. Robinson1, B. Bartholmai1, Heidelberg/DE, Rochester, MN/US, Ann Arbor, MI/US, Palo Alto, CA/US

RPS 1104-15 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, Tianjin/CN, Shenyang/CN

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

CTiR 11-2 14:10
Discussant
K. Dolc: 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: functional prediction by corrected coronary opacification (CCO) from coronary computed tomography angiography (CCTA) in the assessment of not evaluable well-calcified plaque
O. Weinheimer1, L. Yu1, J. G. Fletcher2, M. O. Wielputz1, C. P. Heusel1, H.-U. Kauczor1, C. J. Galban3, T. E. Robinson1, B. Bartholmai1, Heidelberg/DE, Rochester, MN/US, Ann Arbor, MI/US, Palo Alto, CA/US

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. Spikern, A. S. Littooj1, A. Beisuihzen, S. G. Elias1, B. de Keizer1, T. Kwe1, N. Tolboom1, R. A. J. Nievelstein1, Utrecht/NL, Groningen/ NL

CTiR 11-6 14:40
Discussant
E. L. Twomey: Dublin/IE

RPS 1103 14:45
Pivotal study of MRI-guided transurethral ultrasound ablation (TULSA) in men with localised prostate cancer

CTiR 11-7 Discussant
V. Panebianco: Rome/IT

CTiR 11-8 14:55
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. Giganti1, V. Kasivisvanathan1, S. Punwani1, M. Emberton1, C. Allen1, C. M. Moore. Precision Study Group Collaborators: London/UK

CTiR 11-9 15:00
Discussant
N.N.

CTiR 11-10 15:10
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. Giganti1, V. Kasivisvanathan1, S. Punwani1, M. Emberton1, C. Allen1, C. M. Moore. Precision Study Group Collaborators: London/UK

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. Bakker1, S. V. de Lange1, R. M. Pijnappel1, W. B. Veldhuis1, C. van Gils1, O. B. O. T. Dense Study Group: Utrecht/NL

CTiR 11-12 15:25
Discussant
A. O. Oktay Alfati1, Izmir/TR

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. Palumbo1, E. Cannizzaro1, S. Torione1, A. Corridore1, M. C. De Donato1, F. Cobiani Bellisari1, F. Sgalambro1, E. Di Cesare1, M. Gasciocchi1, L'Aquila/IT

RPS 1103-2 14:16
Coronary CT angiography-derived plaque quantification for the identiﬁcation of lesion-speciﬁc ischemia
N. Zhao1, Y. Gao1, B. Lv1, 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. Overhoff1, G. Özdemir1, U. J. Schoepf1, I. Akın1, D. Lossnitzer1, M. Borggreve1, 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
G. Muscogiuri1, M. Chiesa1, L. Fusini1, M. Guglielmo1, A. Baggiolo1, A. I. Guaricci2, G. Cicala3, M. Pepi1, G. Pontone1, Milan/IT, Bari/IT, Parma/IT

Cardiac

RPS 1103-1 14:10
Anatomic and functional assessment of CAD with CCTA: what’s new?
Moderators:
R. Faletti1, Turin/IT
N.N.

RPS 1103-2 14:16
Functional prediction by corrected coronary opacification (CCO) from coronary computed tomography angiography (CCTA) in the assessment of not evaluable well-calciﬁed plaque
P. Palumbo1, E. Cannizzaro1, S. Torione1, A. Corridore1, M. C. De Donato1, F. Cobiani Bellisari1, F. Sgalambro1, E. Di Cesare1, M. Gasciocchi1, L'Aquila/IT

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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. Fusaro, M. Rattazzi, G. Tessarini, C. Bordolanza, M. Tiepolo, C. Nardin, L. Tononi, G. Morana; *Treviso/IT, †Padua/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
R. Ma, M. van Assen, D. Ties, G. J. Pelgrim, G. Sidorenkov, P. M. van Ooijen, P. van der Harst, R. van Dijk, R. Vliegenthart; Groningen/NL

RPS 1103-7 14:46
FFR-CT in the evaluation of acute chest pain: concepts and first experiences
R. R. Bayer, A. M. Fischer, S. S. Martin; †Charleston, SC/US, ‡Frankfurt am Main/DE, †Munich/DE

RPS 1103-8 14:52
Comparative-effectiveness analysis of coronary CTA in patients with stable chest pain
X. Wu, A. Malhotra; †New Haven, CT/US, ‡Stamford, CT/US

RPS 1103-9 14:58
Routine early postoperative CT imaging after CABG surgery: clinical value and unexpected findings
M. G. Karolyi, T. Gloor, M. O. Schmiady, H. Alkadhi; Zurich/CH

RPS 1103-10 15:04
CAD-RADS in the era of FFRCT: an observational study in an acute chest pain population

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. Zhao, Y. Gao, B. Lv; 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

RPS 1103-13 15:22
Prognostic value of cCTA derived morphological and functional quantitative plaque markers using semi-automated plaque software

14:00 - 15:30 Da Vinci (Room D1)

Emergency Imaging

RPS 1117
Abdomen and brain
Moderators:
A. Blanco Barrio; Murcia/ES
N.N.

RPS 1117-K 14:00
Keynote lecture
I. Arkhipova; 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. Hynes, D. Caldwell, P. Kenny, P. J. Macmahon; Dublin/IE

RPS 1117-1 14:16
Adrenal glands enhancement in computed tomography as a predictor of 24-hour mortality in critically ill patients
R. Winzer, J. Kühn, C.-J. Baldus, D. Seppelt, I. Platzek, R.-T. Hoffmann, D. Fedders; Dresden/DE

RPS 1117-2 14:22
Do emergency physicians appropriately request a head CT in patients with new-onset seizure?
I. Garcia-Tuélis, J. M. Plasencia Martínez, E. Antolinos, M. N. Plasencia, J. M. Garcia Santos, J. Trejo Falcón; Murcia/ES

RPS 1117-3 14:28
The performance of artificial intelligence in the detection of intracranial haemorrhage on head computed tomography with clinical workflow integration
N. Watte, K. H. Nieboer, N. Buls, J. de Mey; Brussels/BE

RPS 1117-4 14:34
Diagnostic accuracy of multidetector CT in colonic ischaemia in the emergency department
G. Addo, M. M. Lanzetta, G. Grazzini, D. Cironi, M. C. Bonini; †Pradella, V. Miele; ‡Florence/IT, †Colle Val d’Elsa/IT, †Rome/IT

RPS 1117-7 14:40
Detection of CVA and TIA at the emergency department triage: developing a prediction machine learning model
E. Druskin, E. Zimlichman, S. Soffer, S. Bader, Y. Barashi, E. Kone, E. Klang; †Ramat Gan/IL, †Tel 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. Gascho, N. Zoelich, E. Deininger-Czemak, C. M. S. Tappero, A. Buehlmann, P. Wyss, M. Thali, S. Schaerli; ‡Zurich/CH, ‡Basel/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. Crocker, M. A. Akl, M. Abdolell, M. Kamali, A. Costa; †Halifax/CA, ‡Makkah/SA

RPS 1117-10 14:58
Thin slices and maximum intensity projection reconstructions increase sensitivity to hyperdense artery sign in acute ischemic stroke
J. Rosskopf, B. L. Schmitz, T. Gräter; Düsseldorf/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. Weng, L.-J. Wang, C.-H. Wu; Taoyuan/TW, †New Taipei City/TW

RPS 1117-12 15:10
Diagnostic accuracy of multidetector CT in primary acute mesenteric ischemia
M. Lanzetta, G. Addo, M. C. Bonini, G. Grazzini, S. Pradella, V. Miele; Florence/IT

RPS 1117-5 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. Berger, M. Edwards, T. Tromp, D. R. Kool, L. F. M. Beenen; Tel Aviv/IL, †New Haven, CT/US, ‡New Taipei City/TW

RPS 1117-13 15:22
Adrenal glands enhancement in computed tomography as a predictor of 24-hour mortality in critically ill patients
R. Winzer, J. Kühn, C.-J. Baldus, D. Seppelt, I. Platzek, R.-T. Hoffmann, D. Fedders; Dresden/DE

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D. Gascho, N. Zoelich, E. Deininger-Czemak, C. M. S. Tappero, A. Buehlmann, P. Wyss, M. Thali, S. Schaerli; ‡Zurich/CH, ‡Basel/CH

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Genitourinary

RPS 1107 Prostate lesions scoring and treatment

Moderators:
M. De Rooij; Nijmegen/NL
M. Secil; Izmir/TR

RPS 1107-1 14:00

DVI and PRECISE criteria in men on active surveillance for prostate cancer: a multicentre preliminary experience of different ADC calculations
F. Giganti1; M. Pecoraro2; D. Fierro3; R. Campa2; C. Allen4; M. Emberton1; C. Catalano5; C. M. Moore2; V. Panebianco2; 1London/UK, 2Rome/IT

RPS 1107-2 14:06

Interobserver reproducibility of the PRECISE scoring system for prostate MRI on active surveillance: results from a two-centre pilot study
F. Giganti1; M. Pecoraro2; A. Stabile1; V. Stavrinides1; S. Cipollari2; M. Emberton1; C. Catalano5; C. M. Moore2; V. Panebianco2; 1London/UK, 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. Perretta2; S. Marsico3; E. P. Ryan3; D. D’amato4; A. Turbanti5; E. Finazzi Agrò6; R. Floris7; 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. Rudolphi1; A. Baur1; M. Haas2; P. Asbach3; S. Mahjoub4; H. Cash5; B. Hamm6; T. Penzkofer7; 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. Romeo3; 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. Cañilé; N. Sushentsev; E. Sala; N. Shaidai; 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. Brembilla; P. Dell’oglio; A. Stabile; A. Damascelli; L. Brunetti; G. Cristel; A. Esposito; F. Montorsi; F. de Cobelli; Milan/IT

RPS 1107-8 14:42

Diagnostic value of combining PI-RADS v2.1 with prostate-specific antigen density in prostate cancer
K. Wei; J. Zou; S. Zhong; G. Hu; J. Xu; 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. Dehnhed; K. Nandar; I. Gujratth; E. Salinas-Miranda; A. Tol; N. Perlis; A. Finelli; F. Khalvatli; M. A. Haider; 1Toronto/CA, 2Boston/US

RPS 1107-10 14:54

Magnetic resonance imaging targeted prostate biopsy only: does systematic biopsy belong in the past?
M. Klingebiel; T. Ullrich; C. Arsov; M. Quentin; D. Mally; P. Albers; G. Antoch; L. Schimmöller; Düsseldorf/DE

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. Dekkers1; J. J. M. Westenberg; A. Schole2; 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 Hassenc1; J. Benzakoun1; L. Legrand1; D. Calvet1; P. Bartolucci1; O. Naggara1; C. Oppenheim1; M. Edjali-Goujon1; 1Paris/FR, 2Cresteil/FR

RPS 1111-3 14:12

White matter lesion volume in subjects with prediabetes, subjects with diabetes, and normoglycemic control subjects
S. Grosou1; R. Lorbeer1; F. Bamberg1; C. L. Schlett2; A. Peters1; M. Heier1; S. Rospleszcz1; B. B. Ertl-Wagner1; S. Stöcklein1; 1Munich/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. Guarnaro1; C. Barbato1; L. Ulivì1; 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 collaterals in order to predict the clinical outcome after recanalisation of acute ischaemic stroke
E. Puglielli; 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. Rizk2, D. Racine3, P. Pujadas4, D. Fournier5, H. Brat6;
1Leuven/BE; 2Villars-sur-Glâne/CH; 3Lausanne/CH; 4Paris/FR; 5Sion/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. Ye; C. Booz, S. S. Martin, L. Lenga, B. Kaltenbach, T. J. Vogl, M. H. Albrecht; Frankfurt am Main/DE

RPS 1101-3 14:12
Comparison of enhanced liver 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. Mohammed; Riyadh/SA

RPS 1101-4 14:18
Diagnose negative gallstones with dual-layer spectral detector CT
J. Liu; X. Lu; Tianjin/ CN, Shanghai/ CN

RPS 1101-5 14:24
Contrast media reduction in abdominal dual-energy CT: low keV virtual monoenenergetic images restore diagnostic assessment and image quality
S. Lennartz1, N. Grosse Hokamp1, C. Zäske1, D. Zopfs1, G. Bratke1, A. Glauner1, D. Maintz1, D.-H. Chang1, T. Hickethier1; Cologne/DE, 1Heidelberg/DE

RPS 1101-6 14:30
Optimised virtual monoenenergetic image for liver fibrosis staging using dual-layer spectral CT
R. Li, W. Yang, F. Yan, Q. Han, X. Chen; Shanghai/ CN

RPS 1101-7 14:36
Virtual monoenenergetic images for diagnosing small hepatocellular carcinoma using dual-layer spectral CT: optimal energy level and added value
Z. Fu1, C. Xu2, D. Li, Y. Tian1, X. Chen2, C. Du1; Nanjing/ CN, 1Shanghai/ CN

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, A. Hashmi1, N. Grosse Hokamp1, A. Gupta1, S. Lennartz1, P. F. Graner1, T. Persigehl1, G. Gilkeson1, N. Ramaiya1; Cologne/DE, 1Cleveland, OH/US

RPS 1101-10 14:48
Metal implants on abdominal CT: can split-filter dual-energy spectrum CT provide additional value over iterative metal artefact reduction?
H. M. Wichtmann1, S. Yang1, K. R. Laukamp1, S. Manneck1, K. Appeit1, D. Boll1, T. Heye1, M. Benz1, M. M. Obmann1; 1Basel/CH, 1Cologne/DE

RPS 1101-11 14:54
Improved image quality in abdominal CT: promising results from a novel deep learning image reconstruction (DLIR) technique
T. Bjelland1, A. Schulz1, G. Pace1, H. K. Andersen1, A. C. T. Martinsen1; Maastricht/ NL

RPS 1101-12 15:00
Optimisation of abdominal CT using a new iterative reconstruction technique
G. Pace1, M. Afadzi1, A. Schulz1, T. M. Aalokken1, A. C. T. Martinsen1, A. Giovagnoni1; Ancona/IT, 1 Oslo/NO

RPS 1101-13 15:06
A randomised controlled trial proposing a straightforward 10-to-10 rule for individualised liver imaging based on tube voltage and body weight
B. Martens, J. E. Wildberger, B. M. F. Hendriks, S. M. van Kirk, N. H. G. M. Peters, J. de Vos-Geelen, C. Mihl; Maastricht/NL

RPS 1101-14 15:12
3D-segmentation of visceral and subcutaneous adipose tissue on CT: influence of contrast-medium and -phase

RPS 1101-15 15:18
Dynamic segmental CT liver perfusion data analysis after portosystemic shunt procedure in patients with liver cirrhosis
N. Diuraeva1, F. Nazirov1, A. Babadjanova1, A. Amirkhamzaev1, U. R. Salimov1, V. N. Vakhidova1, A. Sultanov1, T. Tashkeev1, T. Ghandy1, 1 AF

RPS 1101-20 15:30
RPS 1110
Knee

Moderators:
Ž. Snoj; Ljubljana/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, A. Borzelli1, F. Pane2, D. Negroni1, M. Cernigliaro1, A. Carriero1, G. Guzzardi1
Novara/IT, 1Naples/IT

RPS 1110-2 14:16
The correlation between the anatomical variations of the knee joint and pat-fad pathologies and patellar tilt
A. H. Cleniger1, Y. K. C. Ketinoğlu1, M. F. Gelal1, B. Dirim Mete1, A. H. Çilengir1, Y. K. K. Çetinoğlu1, M. F. Gelal1, B. Dirim Mete1

RPS 1110-3 14:22
The assessment of medial meniscus extrusion on ultrasound using MRI as a reference standard
R. A. Zeitouni1, H. Hossam El-Din1, N. Eesa1, S. F. Ismail1, ´Cairo/EG, 1Giza/EG

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, 1San Francisco, CA/US

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, J. Hei1, J. Lynch2, M. Nevitt3
Kansas City, KS/US, 1San 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. Saa1, D. Waldron, A. Iqbal1, S. Evans, S. L. James, R. Botchu1
Birmingham/UK

RPS 1110-7 14:46
Attachment type of the posterior meniscofemoral ligament and clinical significance
H. J. Park, S. Ham1; Seoul/KR

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, J. Neumann1, N. E. Lane1, C. McCulloch2, M. Nevitt1, T. M. M. Link2, 1San Francisco, CA/US, 1Sacramento, CA/US

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. Henes1, M. Regier2, M. L. Warncke1, M. Kauf1, G. Schön1, G. Adam1, C. Behzadi1, 1Hamburg/DE, 1Munich/DE, 1Hamburg, HAMBURG/DE

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. Frotch1, G. Adam1, F. O. Henes1, Hamburg/DE

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RPS 1205
Artificial Intelligence and Machine learning for x-ray imaging

Moderators:
L. Cornellissen; 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
T. R. Nimmada1, P. Putha, M. Tadepalli1, B. Reddy, A. M. Jagirdar, P. Rao, P. Warrier; Mumbai/IN

RPS 1205-2 16:06
Sensitivity to user input in deep learning-based vertebral segmentation from lateral cervical spine x-rays
A. Attia1, A. Joseph1, E. Zerbib-Attal1, B. A. Naipeanu1, A. Altar1, M. Fontaine1, J. Tabak1, J. R. Meakin1, G. Slabaugh2, S. M. M. R. Al Arif3, J. Spencer1, J. Spörri, R. Sutter1, L. Peterhans, J. Spencer1, J. Tabak1, J. R. Meakin1, G. Slabaugh2, S. M. M. R. Al Arif3, S. Cappabianca1, A. Paladini1, M. Spinetta1, A. Borzelli1, F. Pane2, D. Negroni1, M. Cernigliaro1, A. Carriero1, G. Guzzardi1, 1Novara/IT, 1Naples/IT

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. Zerbib-Attal1, B. Naipaul1, A. Altar1, M. Fontaine1, R. Radjabaly1, A. Bellamine1, N. Javid1, N. Siauve1, Colombe1, 1Paris/FR

RPS 1205-4 16:18
Adapting state-of-the-art deep learning detectors for diagnosing bone lesions in musculoskeletal x-rays
A. Attia1, A. Joseph1, E. Zerbib-Attal1, L. Combaliaud, G. Fradet, N. Upendra; Paris/FR, N. Upendra; Paris/FR

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.-M. Benta1, F. Birsasteanu, S. Dunariu1, S. Iarca, B. Bercean, M.-M. Benta1, F. Birsasteanu, S. Dunariu1, S. Iarca, B. Bercean
Avramescu1, Tenescu1

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. Ahmad2, R. Lokwani2, G. Naik2, J. Tandale2, K. Saoji2, A. Jaju1, A. Patil1, A. Pant1, 1Maharashtra/IN, 1Pune/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. Ahmad2, R. Lokwani2, G. Naik2, J. Tandale2, K. Saoji2, A. Jaju1, A. Patil1, A. Pant1, 1Maharashtra/IN, 1Pune/IN
B. Vicente1, A. F. Abrantes2, L. P. V. Ribeiro3, S. Rodrigues2, J. Pinheiro4, M. V. C. Reis2, R. P. P. Almeida1, K. B. Azevedo1

Ultrasound evaluation of abdominal muscles in asymptomatic athletes: making AI available for sport imaging

RPS 1205-10 16:48
Breast cancer screening with denoised ultra-low-dose mammography
M. Sklar-Levy1, M. Green1, E. Konen1, 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. Liu2, S. C. Foreman1, E. Ozhinsky2, P. M. Jungmann1, M. Nevtit1, T. M. M. Link4, V. Pedaia1; 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. Kügel1, A. M. Bucher1, A. Distgorf2, A. Rajkarnika2, M. Uecker2, P. D. A. Kuijper3, T. J. Vogl2, A. D. Mukhopadhyay1; Bonn/DE, 2Frankfurt am Main/DE, 3Darmstadt/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

RPS 1205-15 17:18
A cloud-based intelligent system for bone age determination in athletes: making AI available for sport imaging
M. Fatehi1, R. Nateghi2, P. Fatehi1, F. Pourakpour4, A. Sami2; Tehran/IR, 2Shiraz/IR

16:00 - 17:30  Room Y

My Thesis in 3 Minutes

MyT3 12 Radiographers

Moderators:
M. Gardarsdottir; Reykjavik/IS, F. Zarb; Msida/MT

MyT3 12-1 16:00
Survey of radiologists1, radiology residents2, and radiographers’ knowledge regarding contrast materials and management of associated adverse reactions
F. Khan, M. Samad, G. Wahid; Peshawar/PK

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. Cabrit1, A. F. Abrantes2, L. P. V. Ribeiro2, S. Rodrigues1, R. C. M. C. R. Gaspar2, R. P. P. Almeida1, K. B. Azevedo1; Faro/PT, 2Parchal/PT, 3Coimbra/PT

MyT3 12-4 16:12
Radiographer’s communication skills in private imaging facilities
A. C. M. Gonçalves1, S. Rodrigues1, L. P. V. Ribeiro2, A. F. Abrantes1, R. P. P. Almeida1, O. Lesyuk1, B. Vicente1; 1Avíara/PT, 2Faro/PT, 3Parchal/PT, 4São Brás de Alportel/PT, 5Olhão/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. Abrantes2, L. P. V. Ribeiro2, S. Rodrigues2, J. Pinheiro4, M. V. C. Reis2, R. P. P. Almeida1; 1Olhão/PT, 2Faro/PT, 3Parchal/PT, 4São Brás De Alportel/PT

MyT3 12-6 16:20
Sentinel lymphatic nodes scintigraphy in patients with vulvar cancer
E. Zykov, A. Iljyn, 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. Campea: Lausanne/CH

MyT3 12-9 16:32
Nutritional support in cancer patients: radiographers’ perceptions
A. V. Dimitrova, P. Jones, G. van Dijk; Maida/MT

MyT3 12-11 16:40
SAFMEDS to improve medical students and trainee accuracy in interpreting chest radiographs: a pilot study
K. Dunne, D. Byrne, S. Lydon, P. McCarthy, C. Madden; Galway/IE

MyT3 12-13 16:44
Evaluation of haemodynamic changes in the middle cerebral artery in smokers: an ultrasonography study
M. D. E. Brauzana1, L. P. V. Ribeiro2, S. Rodrigues1, A. F. Abrantes1, R. P. P. Almeida1, M. V. C. Reis1, T. C. P. L. Guerreiro; 1Faro/PT, 2Parchal/PT

MyT3 12-14 16:48
Ultrasound measures of abdominal aortic caliber and quadriceps 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. Ribeiro2, R. P. P. Almeida1, M. V. C. Reis1, T. C. P. L. Guerreiro; 1Faro/PT, 2Parchal/PT, 3Portimão/PT, 4Santiago Do Cacém/PT

MyT3 12-15 16:52
Radiographers in cath-lab: new operating procedures to improve quality assurance and patient safety
F. Aragona1, E. Stefani2, M. Coccato2, M. Centenaro1, S. Cuman3; Treviso/IT, 2Congliano/IT, 3Varese/IT

MyT3 12-16 16:56
The environment preventing female radiological technologists from improving their career prospects: filling the duration of their pregnancy and child-rearing

MyT3 12-17 17:00
Development of radiographer scheduling system considering skills and training: a case study
K. Hidaka, T. Miyamoto; Suita/JP

MyT3 12-18 17:04
A radiographers’ preceptorship: educational needs in the United Arab Emirates
M. M. Abuzaid1, W. Elshami1, S. Hamid2, M. A. Musallam1, N. Seymour1, M. D. Davis2; Cork/IE, 1Dublin/IE

MyT3 12-19 17:08
An investigation into the necessary considerations when giving patients online access to their health records
K. Dunne, D. Byrne, S. Lydon, P. McCarthy, C. Madden; Galway/IE

MyT3 12-20 17:12
Using a standardised patient to authenticly 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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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. Rapson4, H. Cernik5, I. Bokov6, O. 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?
B. M. Den Dekker, P. J. van Diest, S. de Waard, H. Verkooijen, R. M. Pijnappel; Eindhoven/NL

RPS 1302-4 08:48
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

RPS 1302-5 08:54
Can we predict upgrade on surgical pathology?
Y. Zhu, Y. Chen, J. Jiang; Shanghai/CN

RPS 1302-6 09:00
Tomoacoustic-guided vacuum-assisted breast biopsy for mammographic low-contrast, non-calcific lesions: technical and pathologic results
C. Paglioda1, K. Jerman2, A. Linda2, R. Girometti3, C. Zuiani3; Gorizia/IT, Udine/IT

RPS 1302-7 09:06
Value of targeted fusion US with virtual mammographic navigation in B3 lesions
V. E. Gazhonova, 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

RPS 1302-12 09:36
Ultrasound-guided core-needle biopsy of the axillary lymph nodes in different subtypes of newly diagnosed breast carcinoma
M. Jafari, M. Gity, A. Ofatbaksh, K. Rezaei Kalantarí; Tehran/IR

RPS 1302-13 09:42
Breast biopsy performed the same day as diagnostic imaging: does it impact patient care?
K. Coffey, E. Cheang, V. Mango, E. A. Morris, D. D’alessio; New York, NY/US

RPS 1302-14 09:48
Association of retrospective peer review and positive predictive value of magnetic resonance imaging-guided vacuum-assisted needle biopsies of breast
C. Yalniç1, J. Rosenblat2, D. Spak1, W. Wei1, M. Scoggins1, H. C. Le-Petross1, M. Dryden1, B. E. Adrada1, B. E. Dogan2; Houston, TX/US, Los Angeles, CA/US, Dallas, TX/US
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. Arsoy, 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. Hamm, 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, D. Barone; Bologna/IT, Meldola/IT.

08:30 - 10:00 Room Y

My Thesis in 3 Minutes

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 Kus, 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. Jayant1, T. B. S. Buxi2, K. S. Rawat1, P. Singh1; 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. Ghuman1, T. B. S. Buxi1, A. Jayant1; New Delhi/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/PAK

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. Soog, T. Agarwal, S. Gupta, R. Prasad; New Delhi/IN

MyT3 13-8 08:58
Reproducibility of intraovexel 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. Nagenithan, 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. Agrawa1, A. N. Kamble1; 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 in melanoma patients undergoing hepatic artery infusion?
N. K. Agrawa1, A. N. Kamble1; Mohali/IN, New Delhi/IN

MyT3 13-14 09:22
Improvement of ultrasonographical differential diagnosis of gastric lesions: the value of contrast-enhanced sonography with gastric elastography (TE)
T. Li, M. Lu; Chengdu/CN

MyT3 13-15 09:26
Shear-wave elastography method in the diagnosis of acute appendicitis
C. Vildirim1, Ö. Tunçyürek2; Aydın/TR, Nicosia/CY

MyT3 13-16 09:30
Comparison of spin-echo echo-planar imaging (SE-EPI), MR elastography with gradient-recalled echo (GRE), and future liver remnant ratio to predict post-hepatectomy liver failure
J. Theysohn, B. M. Schaarschmidt; 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. Fierro, 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
RPS 1305-9 09:18
First national teleradiology pilot project in the Saudi Ministry of Health
S. Alshaikh1, A. Aldosari, H. Alasmari, M. Almuaqil1, M. Mutabi1, Q. Alawai1, A. F. T. Gashgari1, 1Riyadh/SA, 2Al-Hassa/SA, 3Dammam/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. Vossenich1, I. Nesic, J. Cyriac, 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. Illing, L. Refi; 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’ Alessio, G. Carosi, I. Galdino, A. Ricciardi, C. A. Mallio; 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, 2Shiraz/IR

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, N. Roson Gradialle1, R. Mast Vilaseca1, K. Ramirez Tucas1, 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. Fraqa Rivas1, C. Benito Vicente1, L. Garcia Del Salto Lorente1, M. I. Diez Perez de las Vacas1, J. de Miguel Criado2, A. Marco Sanz3; Madrid/ES, 1Coslada/ES

RPS 1305-3 08:42
National diagnostic imaging trends in Spain: 2010-2017
A. Perez Girbes, 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. Koç1, D. Pinto Dos Santos5, T. Leiner1, M. J. Willemink6; Utrecht/NL, 1Turnhout/BE, 2Vancouver/CA, 3Stanford, CA/US, 4Palo Alto, CA/US, 5Cologne/DE, 6Menlo Park, CA, NL

RPS 1305-6 09:00
First peer review experience among a French teleradiology community
M. Schertz1, E. Morau1, G. Sozeau2, M. Cavet2; Paris/FR, 1Montpellier/FR

RPS 1305-7 09:06
Innovation in radiology using a needs-based approach: clinical radiologists’ experience
R. A. Rippel, 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. Umdagasa1, F. B. Nkubil1, D. Z. Joseph1, M. Z. Ibrahim2; 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. Aldosari, H. Alasmari, M. Almuaqil1, M. Mutabi1, Q. Alawai1, A. F. T. Gashgari1, 1Riyadh/SA, 2Al-Hassa/SA, 3Dammam/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. Vossenich1, I. Nesic, J. Cyriac, 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. Illing, L. Refi; 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’ Alessio, G. Carosi, I. Galdino, A. Ricciardi, C. A. Mallio; 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, 2Shiraz/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 Bruijne; 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. Ates, 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 targets based on preoperative MRI textural analysis
W. Rui, H. Pang, Q. Xie, Y. Ren, S. Duan, Y. Zhang, Z. Yao; Shanghai/CH

RPS 1405a-4 11:43
Glioma segmentation in sparse label applications: a federated learning solution
S. Niehaus1, L. Lampe1, A. Merola2, G. Mihai2, J. Reinelt2, N. Scherf3; 1Berlin/DE, 2Leipzig/DE, 3Dresden/DE

RPS 1405a-5 11:49
Glioma segmentation in sparse label applications: a federated learning solution
S. Niehaus1, L. Lampe1, A. Merola2, G. Mihai2, J. Reinelt2, N. Scherf3; 1Berlin/DE, 2Leipzig/DE, 3Dresden/DE
RPS 1405a-8 12:07
Can we predict a brain metastases primary site by using deep learning algorithms, even in small datasets?
Y. Cusken1, B. Alparslan1, K. Kaplan1, F. Çalışkan1, O. Tavas1, E. Dervişoğlu1, H. M. Ertunç1, A. K. Sivrioglu1, C. T. Whitlow

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
K. Bousabarah, P. D. M. Kocher, P. D. M. Ruge, J.-S. Brand, S. de Beni3, S. D’onofrio3, L. Pennig1, S. Lennartz1, L. Goertz1, F. Thiele2, M. Perkuhn1, J. Borggrefe1

RPS 1405a-11 12:25
Brain metastases in malignant melanoma: fully automated detection and segmentation on MRI using a deep learning model

Breast
RPS 1402a Artificial intelligence, radiomics and more: part 2
Moderators:
S. Jeganathan; Perth/AU
H. Sarton; Lund/SE

RPS 1402a-1 11:15
The application of model-adaptive artificial intelligence algorithms in breast ultrasound imaging

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, E. Sestieri, A. Angelakis1, H. Sportouche2, ‘Athens/GR, ‘Aix-en-Provence/France

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

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

Vascular
RPS 1415 Advances in vascular imaging
Moderators:
R. Scherrnanther; 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. Hirschberg1, S. Paruch1, M. Gurevicht1, V. Tennak1, V. Mezhovsky1, E. Nesher1, E. Mor1, A. Apar1, ‘Petah Tikva/IL, ‘Sahil/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

Saturday
RPS 1415-3 11:27
The detection of shear stress in haemodialysis arteriovenous fistulae by ultrasound vector flow imaging
D. Ding1, R. Zhao1, Q. Yang1, Y. Du2, L. Zhu1, H. Gan1, M. Wang1; Bejing/CN, *Shenzhen/CN

RPS 1415-4 11:33
Ferumoxytol MR angiography: a novel imaging technique for vascular mapping before haemodialysis arteriovenous fistula creation
A. Tan1, S. Stoumpos2, P. Hall Barrients3, A. Radjenovic4, D. Kingsmore5, R. S. Kasthuri6, G. Roditi7, P. Mark8, *Glasgow/UK

RPS 1415-5 11:39
A magnetic micro-robot for aneurysm coiling with magnetic particle imaging
A. C. Bakenecker1, F. Wegner1, H. Schwenke1, K. Lüdtke-Buzug1, T. Friedrich1, J. Barkhausen1, T. M. Buzug1; Lübeck/DE

RPS 1415-6 11:45
The safety of a new stent design during magnetic particle imaging and magnetic resonance imaging
U. Gryzka1, T. Friedrich1, J. Haegel1, T. M. Buzug1, J. Barkhausen1, F. Wegner1; Lübeck/DE, *Neuss/DE

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. Ballweber1, M. Alastair1, D. Saloner2; Chengdu/CN, *Beijing/CN, *San Francisco/US

RPS 1415-8 11:57
The potential of ferumoxytol as a contrast medium in computed tomography: a phantom study
A. Parakh1, A. O’Shea1, M. Harisinghani1, A. Kambadakone1, R. Gupta1, B. Ghoshhajra1, S. Hedgire1; Boston, MA/US

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, Chengdu/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; Seongnam/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, D. Aerd1en1, T. Leiner1, J. de Mey1; Jette/BE, *Brussels/BE, *Utrecht/NL

RPS 1415-12 12:21
DKI evaluation of crossed cerebellar diaschisis after MCAO cerebral infarction in rats
Z. Ma1, X. Zhao1, Zhengzhou/CN

RPS 1415-3 11:27
Interventional Radiology

RPS 1409a 11:25
Cost awareness of interventional radiology devices among radiology trainees
M. Courtney1, D. Mulholland1, D. O’Neill1, C. Redmond1, M. J. Lee1, T. Farrell1; Dublin/IE, *Tullamore/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; Manchester/UK, *Blackburn/UK

RPS 1409a-3 11:37
Endovascular simulation training: a tool to increase enthusiasm for interventional radiology among medical students
F. Stoehl1, S. Schotten1, M. B. B. Pitton1, C. Düber1, F. Schmidt1, N. L. Hansen1, B. Baessler1, R. Kloeckner1, D. Pinto Dos Santos2; Mainz/DE, *Cologne/DE

RPS 1409a-4 11:43
Augmented reality in training: can CT-guided intervention be simulated accurately?
D. Aminas1, P. Pratt1, T. Hurukxens1, C. Watura1, B. Baessler1, S. Rostampour2, M. Hammady3; London/UK, *Luton/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. Barbosa2, A. Rampoldi2, C. Dillion2, S. Massey2, A. Torresin3; Milan/IT, *Scottsdale, Arizona/US

RPS 1409a-6 11:55
Monte Carlo study of 3D ray straiy 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, C. V. Pul1; Eindhoven/NL, *Woerden/NL, *Veldhoven/NL

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. Vofmarovoy1, N. Martynova1, N. Berezina2, A. Oleynik1, M. Alastair3; St. Petersburg/RU

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. Bahun2, M. Ballweber3, M. Alastair3; London/UK, *Leicester/UK

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-Obud1; H. M. A. Elgendi2, M. Zamir2; London/UK, *Leicester/UK
Artificial Intelligence and Machine Learning

RPS 1405b

Artificial intelligence and CT radiomics

Moderators:
M. Kolossvary; 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. Wesseling1; L. Licitra1; K. Scheckenbach1; T. Hoffmann1; M. Ravanelli2; R. Leemans1; T. Poli1; P. Lambin1; 1Maastricht, LIMburg/NL, 2Maastricht/DE; Ulm/DE, 4Brescia/IT, 1Amsterdam/NL, 2Parma/IT

RPS 1405b-2 11:21
Test-retest reproducibility of radiomics features in the computed tomography of interstitial lung disease: a pilot study
F. Prayer1, J. Hofmanninger1, S. Röhrich1, J. Pan, A. Willenpart1, M. Weber1, G. Langs1, H. Porsch1; Vienna/AT

RPS 1405b-3 11:27
CT high-resolution images-based radiomics analysis for differentiating lung cancer from tuberculosis
C. Tian1; X. Chunxiao1, X. Li1; X. Wang2; Chengdu/China, 2Shanghai/China

RPS 1405b-4 11:33
Biological validation with gene expression profiling of a CT-radiomics signature for predicting response to immunotherapy
M. Ligeiro1, A. Garcia-Ruiz1, C. Rubio-Perez1, P. Nuciforo1, J. Seoane1, M. Escobar Amores1, R. Dienstmann1, E. Garralda1, R. Perez Lopez1; Barcelona/Spain

RPS 1405b-5 11:39
Radiomics of small renal masses on multiphase CT: accuracy of machine learning-based classification models for the differentiation of RCC and AML without visible fat
R. Yang1, J. Wu1, L. Sun1, S. Lai1, Y. Xu1, X. Liu1, Y. Ma1, X. Zhen1; Guangzhou/China

RPS 1405b-6 11:45
Repeatability and reproducibility of radiomics features in spectral CT using an anthropomorphic abdomen phantom
L. Caldeira1, J. Holz1, S. Lennartz1, D. Maintz1, N. Große Hokamp1; Cologne/DE

RPS 1405b-7 11:51
Multicentre validation of a radiomics-based model for the diagnosis of idiopathic pulmonary fibrosis
T. Refae1, B. Bondue1, G. van Smaeyens1, A. Ibrahim1, G. Wu1, H. C. Woodruff1, P. A. Gevenois1, S. Goldman1, P. Lambin1; Maastricht/DE, 2Brussels/BE

RPS 1405b-8 11:57
Prediction of tumor progression and recurrence in patients with hepatocellular carcinoma undergoing transarterial chemoembolisation as a bridge to transplant using CT radiomics features
E. Sainas-Miranda1, K. Namdar1, F. Khalvati1, D. Deniffel1, P. Alessandro1, T. Ivanics1, G. Sapisochin1, M. A. Haider1, F. Klaschik1, P. Lambin1; Maastricht/DE, 2Parma/Italy

RPS 1405b-9 12:03
CT-radiomics quantification towards a more accurate immunotherapy response assessment
A. Antón Jiménez1, M. Ligero1, S. Roche1, R. Mast Vilaseca1, N. Roson1, M. Escobar1, R. Perez Lopez1; 1Barcelona/ES, 2Hospitalet 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. Zhang1, S. H. Liu1, H. L. Yu1, S. L. Liu1, Z. X. Zhang1; Qingdao/China

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. Zhou1; 1Shanghai/China, 2Beijing/China

Breast

RPS 1402b

Hand-held, contrast-enhanced, and automated whole-breast ultrasound

Moderators:
G. Adelsmayer1; 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?
A. J. Jameel1, A. S. Mehdi1, K. Edmonds1, D. Khafaf1, T. Seaton1, D. Cunningham; London/UK

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
S. Y. Lee1, O. Woo1, H. S. Shin1, S. E. Song1, K. R. Cho1, B. K. Seo1, S. Y. Hwang1; Seoul/KR

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. Qi1, L. Bao1; Hangzhou/China

RPS 1402b-4 11:33
Ultrasound evaluation of breast ductal carcinoma in situ
S. Paolicelli1, N. Troiano1, M. Carbone1, M. Telegrafo1, M. Moschetta1; Ban/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. Sharma1, S. B. Grover1, A. Katyan1, C. Chintamani1, D. C. Ahluwalia1; New Delhi/India

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. Manzone1, M. Durando1, L. Bergamasco1, E. Regini1, G. Bartoli1, M. Mariscotti1, P. Fonio1; Turin/IT

RPS 1402b-7 11:51
Comparison between execution and reading time of 3D automated breast ultrasound (ABUS) versus hand-held ultrasound (HHUS): results from the TOMUS study
N. Brunetti1, S. de Giorgis1, J. P. Zawaideh1, F. Rossi1, S. Tosto1, A. Tagliafico1, M. Calabrese1; Genoa/Italy

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. Xu1; Shanghai/China

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. Helal1, A. S. Mansour1, R. Hussien1; Cairo/EG

RPS 1402b-10 12:09
Influence of breast density on patient’s compliance during conventional hand-held breast ultrasound (US) or automated breast ultrasound (ABUS)
S. de Giorgis1, N. Brunetti1, J. P. Zawaideh1, F. Rossi1, A. Garlaschi1, M. Calabrese1, A. Tagliafico1; Genoa/Italy

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 extension
A. C. Georgescu1, S. Bondari1, E. Andrei1, A. Manda1; Craiova/RO

Saturday
RPS 1412b-12 12:21
Is US-texture analysis a useful instrument to discriminate fibroadenomas from complex fibroadenomas and benign phyllodes tumours?

11:15 - 12:30 Studio 2020

Genitourinary

RPS 1407a
Is there any news in CT protocols for renal masses and stones evaluation?

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. Afpaftler1, A. Dutschke1, M. A. T. Baltzer1, C. Schestak1, M. Özsoy2, C. Seitz3, T. H. Helbich4, H. Ringl5, G. Afpaftler6,7; Vienna/AT, Graz/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. Homayounieh, V. Gerzhan7,8, R. Singh1, M. Kalra1, J. Vassileva6; London/UK, US, Skopje/MK, Vienna/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, H. S. Park, S. H. Cho; 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 pathologic CT findings in a fast-track haematuria program
O. Graumann1, J. Madsen1, M. C. Kobel2, O. Gershan2, R. Singh1, J. B. Jensen4; Daegu/KR

RPS 1407a-9 12:03
Size of kidney stones in computed tomography: the influence of acquisition and image reconstruction parameters
R. P. Reimer1, J. Salem1, M. Merkt2, D. Zopfs1, K. Sonnabend1, Y. S. Shim, S. H. Park, J. Lee; London/UK

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; R. P. Reimer1, J. Salem1, M. Merkt2, D. Zopfs1, K. Sonnabend1, A. Heidenreich1, D. Maintz1, S. Haneder1, N. Grosse Hokamp1, C. Seitz3, T. H. Helbich4, H. Ringl5, G. Afpaftler6,7; Vienna/AT, Graz/AT

RPS 1407a-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. Goraiinov, A. Bykanov, I. Pronin, A. Potapov; Moscow/RU
RPS 1407a-12 12:21
Automated detection of kidney stones on CT images using a pre-trained ResNet
C. E. S. Zaeske1, K. Bousabarah1, J. Salem2, D. Maintz2, A. Heidenreich2,
S. Haneder3, N. Grosse Hokamp4, C. M. M. Schaefer-Prokop5, B. van Ginneken1

RPS 1404a-1 11:15
Volume doubling times of lung adenocarcinomas: correlation with predominant histologic subtypes and prognosis
S. Park1, S. M. Lee2

RPS 1404a-2 11:21
Identifying participant subgroups in a lung cancer CT screening setting based on competing risks at the baseline scan
A. Schreuder1, C. Jacobs1, N. Lessmann1, M. Broeders2, M. Silva3, I. Isgum4, P. A. de Jong4, N. Sverzellati5, M. M. Prokop6, U. Pastorino7

RPS 1404a-3 11:27
Variation in LUNGRADSTM scoring for screen detected lung nodules
H. C. Schmidt7, M. McNis1, C. Dennie2, D. Langer1, M. Ang1, A. Khan3, P. Jain1, M. Tammemagi4

RPS 1404a-4 11:33
Comparative cost-effectiveness of dynamic contrast-enhanced computed tomography versus positron emission tomography in the characterisation of solitary pulmonary nodules: the SPUNiK trial
D. Tzelis1, F. J. Gilbert1, L. Vale1, V. Benedetto1, A. Clegg1, S. Harris1, J. R. Weir-McCall1, K. Miles2, S. George1, J. Wat1, C. Van der Pol1, A. M. Kulkarni1, I. Carrión Martínez1, J. Watson2, T. He3, Y. Zeng1, J. D. Chalmers4

RPS 1404a-5 11:39
Quality assurance in lung cancer screening by computed tomography: optimised ultra-low radiation dose by beam filtering in a randomised study
M. Silva1, G. Milanese2, S. Sestini3, M. Ruggirello3, A. Marchianò3, N. Sverzellati1, U. Pastorino6

RPS 1404a-6 11:45
Improving diagnostic accuracy for pulmonary nodules with the combination of morphological characteristics and spectral CT-specific multiparameters
Z. Ren1, T. He2, Xianyang/CN

RPS 1404a-7 11:51
Using spirometry to identify high-risk individuals not eligible for lung cancer screening
R. Aggarwal1, A. Lam1, G. Liu1, J. Kavanagh1, J. Wat1, J. K. Choi1, S. Y. Yoon1, D. W. Kim2, S. E. Rha3, H. Kim4, J.-I. Choi5, S. E. Rha3, D. W. Kim2, S. Y. Yoon1, J. K. Choi1, S. E. Rha3

RPS 1404a-8 11:57
Pulmonary nodule growth: can follow-up be shortened with a high-end or an ultra-high-resolution CT scanner?
D. Grob1, S. Schalekamp1, L. J. Oostveen1, W. J. van der Woude1, C. Jacobs2, M. M. Prokop3, I. Sechopoulos3, M. Brink4, Nijmegen/NL

RPS 1404a-9 12:03
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
G. Milanese1, M. Silva1, M. Ruggirello2, S. Sestini3, F. Sabia3, A. Marchianò3, N. Sverzellati1, U. Pastorino4

RPS 1404a-10 12:09
Deep learning in discriminating atypical lung nodules: a diagnostic test
Y. Zhang1, Y. Liu2, H. Han3, F. Qi1, N. Huang2, Z. Ye2, Tianjin/CN, Beijing/CN

RPS 1404a-11 12:15
Multi-detector computed tomography diagnosis of the different pathological types of cystic lung cancer
L. Zheng1, Y. Li2, Shanghai/CN, Zhangjiagang/CN

RPS 1404a-12 12:21
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 Jr1, M. Hershman2, Philadelphia, PA/US, Tucson/US
RPS 1401a-1 11:15
Long-term evolution of LR-2, LR-3, and LR-4 observations in cirrhotic patients with hepatitis C treated with direct-acting antivirals
G. Antoch1, D. McGonagle3, C. Schleich1
1Düsseldorf/DE, 3Aachen/DE

RPS 1401a-2 11:21
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 1401a-3 11:27
The semi-automated algorithm for the detection of bone marrow oedema lesions in patients with axial spondyloarthritis
I. Kucybała, J. Polak, Z. Tabor, A. Urbanik, W. Wojciechowski; Krakow/PL

RPS 1401a-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. Korcalova, J. S tepankova, D. S uchy, P. Hosek, K. Bajcurova, J. Pernicky, H. M irka; Plzen/CZ

RPS 1401a-5 11:39
Glycosaminoglycan remodeling of lumbar intervertebral discs in elite rowers throughout their annual training cycle

RPS 1401a-6 11:45
Degeneration at atypical spinal segments in patients with abdominal aortic aneurysms

RPS 1401a-7 11:51
Ultrasound evaluation of nail and extensor digitum tendon involvement in psoriatic patients
L. Wang, L. Qiu; Chengdu/CN

RPS 1401a-8 11:57
The role of ultrasonography in monitoring long-standing rheumatoid arthritis
M. L. Dura, P. Zuchowski, P. Gorgolewski, S. Jeka; Bydgoszcz/PL

RPS 1401a-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. Akkaya; A. Gursoy Coruh, A. H. Elhan, G. Sahin; Ankara/TR

RPS 1401a-10 12:09
T2 mapping of the sacroiliac joints in patients with axial spondyloarthritis: a pilot study
D. Albareg, R. Bignone; V. Chianca; R. Cuocolo; C. Messina; L. M. M. Sconfienza; F. Ciccia; M. Midiri; M. Galla; Milan/IT, 3Palermo/IT, 1Naples/IT

RPS 1401a-11 12:15
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. Baraliakos1, C. Schleich1; Düsseldorf/DE, 2Aachen/DE, 1Herne/DE

RPS 1401a-12 12:21
Reduction of metal artefacts caused by titanium peduncular screws at the spine using monochromatic 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

RPS 1403a-1 11:15
Exposure to environmental tobacco smoke estimated using the SHSES scale and epididymal adipose tissue thickness in patients with hypertension
P. Gic, M. Poreba, P. Macek, G. Mazur, R. Poreba; Wroclaw/PL

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. Huang, W.-J. Lee, S.-J. Chen, Y.-C. Chen, C.-L. Ko, T.-D. Wang, C.-M. Chen, Y.-C. Chang; 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

RPS 1403a-4 11:33
Altered cardiac structure and function below recent risk-thresholds: a population-based cardiac magnetic resonance study
F. C. Laqua, R. Bülow, S. Gross; Munich/DE, 1Greifswald/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 depots in a population-based study cohort
E. Beller1, R. Lorbeer2, D. Keeser2, F. Meinel1, S. Grosu2, F. Bamberg3, C. L. Schlett3, B. B. Ertl-Wagner4, S. Stöcklein2; Munich/DE, 1Berlin/DE, 2Freiburg/DE, 3Toronto, ON/CA

RPS 1403a-7 11:51
Coronary artery calcification: towards an update of the international standard
G. D. van Praagh1, J. Wang1, N. R. van der Werf1, M. Greuter3, E. Beller1, R. Lorbeer2, D. Keeser2, F. Meinel1, S. Grosu2, F. Bamberg3, C. L. Schlett3, B. B. Ertl-Wagner4, S. Stöcklein2; Munich/DE, 1Berlin/DE, 2Freiburg/DE, 3Toronto, ON/CA

RPS 1403a-8 12:01
Coronary artery calcification: a possible new marker for cardiovascular and arterial risk stratification
M. S. Posadzy; Poznan/PL

RPS 1403a-9 12:07
Association of coffee consumption with MRI markers of cerebral small vessel disease, cardiac function, and fat depots in a population-based study cohort
E. Beller1, R. Lorbeer2, D. Keeser2, F. Meinel1, S. Grosu2, F. Bamberg3, C. L. Schlett3, B. B. Ertl-Wagner4, S. Stöcklein2; Munich/DE, 1Berlin/DE, 2Freiburg/DE, 3Toronto, ON/CA

RPS 1403a-10 12:09
Coronary artery calcification: a new marker for cardiovascular and arterial risk stratification
M. S. Posadzy; Poznan/PL
**RPS 1403a-9 11:57**
Increased epicardial adipose tissue accumulation as a predictor for essential hypertension in non-obese adults
- A. Dobrovoljski
- D. Austys
- V. Jablonskiene
- V. Dobrovoljski
- N. Valeviciene
- R. Stukas
- Coblenz/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. Malago
G. Tabacco
S. Peretto
M. Poletti
M. Mochoen
G. Salandini
M. Pernigotto
G. Mansueto
Verona/IT
Cles/IT
Dimaro/IT

**RPS 1403a-12 12:15**
Fully automated calcium scoring algorithms for phantom experiments
G. D. van Praagh
N. R. van der Werf
M. Voet
J. Wang
D. Fleischmann
M. Greuter
T. Leiner
M. J. Willemink

**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
H. B. Eggesbo
Oslo/NO
M. Horta
Lisbon/PT

**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
A. Jajodia
V. Mahawar
A. S. Rao
A. K. Chaturvedi

**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. Trifylli
I. C. Mackie
Nikaia/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 dacryocystitis with verbal reporting and virtual endoscopy
A. Ageev
A. Dergilev
V. A. Obodov
A. Obodov
Yekaterinburg/RU
Novosibirsk/RU

**RPS 1408-9 12:13**
Evaluation through dacryo-CT of the relapse of epiphora after dacryocystorhinostomy
G. Salandini
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. Djuric
Belgrade/RS

**RPS 1408-11 12:25**
MRI detects chronic rhinosinusitis in infants and preschool children with cystic fibrosis
M. O. Wielopitz
O. Sommerburg
F. Wuenemann
E. Optaizate
M. Stahl
H.-U. Kauczor
I. Baumann
M. A. Mall
M. Eichinger
Heidelberg/DE

**RPS 1408-12 12:30**
Coffee & Talk

**Head and Neck**

**RPS 1408-1 11:25**
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 1408-2 11:31**
The role of computed tomography staging imaging in the prediction of the pathological depth of invasion (DOI) in oral cancer
M. Quertagione
L. G. Locatello
C. Nardi
F. Mungai
G. Mansueto
Verona/IT

**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. Trifylli
I. C. Mackie
Nikaia/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

**Cardiac**

**RPS 1403b-1 11:25**
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-2 11:31**
Imaging of the pulmonary vasculature in congenital heart disease without gadolinium contrast: intravoxel incoherent motion (IVIM) MRI detects chronic rhinosinusitis in infants and preschool children
C. T. N. Jackson
P. Ciliberti
A. Secinaro

**RPS 1403b-3 11:37**
Long-term follow-up of extracardiac Fontan procedure by CCT and CMR
M. Calroya
M. Bret Zurita
I. Miguelsanz
E. Doerner
J.-N. Dacher

**RPS 1403b-4 11:43**
Multiparametric myocardial mapping of paediatric cardiac tumours: preliminary results in comparison with conventional cardiac MR evaluation
S. Baş Özkök
M. Sorkun

**RPS 1403b-5 11:49**
Assessment of the clinical utility of IVIM tagged CMR with pseudocontinuous arterial spin labelling (PCASL) in assessing infarct in patients with congenital heart disease
O. Duvernoy
Uppsala/SE
N.N.
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. Filosa1, L. Pistochi1, E. Grassedonio1, R. Righi1, P. Preziosi2, V. Positano1, M. Casale1, Pisa/IT, 1Naples/IT, 1Palermo/IT, 2Ferrara/IT, 1Rome/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, P. Sardanelli1, F. Secchi1, Milan/IT, 2Messina/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. Abidoye2, T. Deisler1, A. L. Emrich1, P. Wenzell1, C. Düber1, A. Varga-Szemes1, K.-F. Kreitner1, Mainz/DE, 1Ado-Ekiti/NG, 1Charleston, 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. Syrgiamiotis; Athens/GR

RPS 1414-K 11:15
Keynote lecture
C. Malamatiniou; 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. Lydah1, H. M. Olerud1, R. Toomey2, A. Craddock2, L. A. Rainford2, C. B. Monti1, G. Guarnieri1, U. Barbaro2, D. Capra1, M. Ali1, P. Sardanelli1, F. Secchi1, Milan/IT, 2Messina/IT

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. Champendial, 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. Rainford2, C. B. Monti1, J. G. Murray1, F. Secchi1, A. Craddock2, Milan/IT, 1Dublin/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

RPS 1414-7 12:01
The impact of phase-encoding direction on calculated ADC values in DW-MRI of normal bone marrow in the distal femur and proximal tibial A. Algattan, A. McGee, E. Delahunt, A. Craddock, S. Eustace, J. McNulty; Dublin/IE

RPS 1414-8 12:07
Patient satisfaction of the Aspetar MRI service
S. Smith, M. N. A. Mohamed, H. Lloyd, S. Allenjawi, M. Farooq; Doha/QA

RPS 1414-9 12:13
Patient perceptions of radiographer communication skills in MRI examinations
R. P. Sousa1, O. Lesyuk2, L. P. V. Ribeiro5, S. Rodrigues2, R. P. P. Almeida4, A. F. Abrantes3, A. D. M. Ribeiro2, Sagres/PT, 2São Brás de Alportel/PT, 1Parchal/PT, 1Faro/PT, 1Portimão/PT

RPS 1414-10 12:19
A survey to explore magnetic resonance imaging safety in Greece
N. Stogiannos1, C. Westbrook2, 1Corfu/GR, 2Cambridge/UK

RPS 1414-11 12:25
Assessment of MRI safety knowledge and concepts in radiographers and other medical staff
V. M. F. Silva1, D. Santos2, A. Santos2, J. Santos2; Porto/PT, 2Coimbra/PT

11:15 - 12:30  Descartes (Room D3)

Oncologic Imaging

RPS 1416a Chest malignancies: advanced imaging and radiomics
Moderators:
I. Vasylyir; Kiev/UA
T. C. McLoud; 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, T. Yoshikawa3; Tokyo/JP, 1Otawara/JP, 2Kobe/JP

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. Sugihara2, S. Seki4, T. Yoshikawa6; 1Toyooka/JP, 2Ootawara/JP, 3Tokyo/JP, 4Kobe/JP

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, G. de Bock1, R. Villegenthart1, Z. Ye1, 1Groningen/NL, 2Tianjin/CHN

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. Gennaro, U. Cariboni, F. Fazzari, V. M. Giudici, A. Rossi, O. G. Santonocito, P. Novellis, M. Infante, L. Balzarini, L. Monni; Rovizzano/IT
RPS 1416a-7 11:39  
Prognostic 18F-FDG PET markers for immune-checkpoint inhibitor therapy in patients with non-small cell lung cancer  
D. Křížek, L. Beer, A. Haug, M. E. Mayerhöfer, M. Hochmair, H. Prosch; Vienna/AT

RPS 1416a-8 11:45  
The optimisation of the CT window setting to differentiate pre-invasive from invasive solid lung nodules  
A. Džudković, G. de Bock, R. Vliegenthart, Z. Ye; Tianjin/CN, 2Groningen/NL

RPS 1416a-9 11:51  
CT evaluation of NSCLC treated with PD-1/PD-L1 inhibitors: experience of long term follow-up  
M. Porta; D. Ippolito, C. Talei Fransesi, M. S. Capici, C. Maino, L. Riva, S. Sironi; Monza/IT, 2Bergamo/IT

RPS 1416a-10 11:57  
The relationship of FDG and iodine-related parameters in non-small cell lung cancer: the potential benefit of PET/CT with dual-energy CT scan in therapy response monitoring  
J. Bax; M. Pesek, M. Svaton, B. Schmidt, M. Sedlmair, J. Ferda; 3Pilsen/ CZ, 2Forchheim/DE

RPS 1416a-11 12:03  
Pseudo or real progression in advanced lung cancer immunotherapy: just a matter of size?  
M. Sciacchitano, A. Ferraris, D. Tore, A. Carisio, G. Bartoli, A. Depaoli, C. Guarnaccia, M. C. Martina, P. Fonio, G. French; Forchheim/DE, 3Budapest/HU, 1Athens/GR

RPS 1416a-12 12:09  
A nomogram based on CT images and 3D texture analysis for preoperatively differentiating thymic epithelial tumours  
C. Ren; Shanghai/CN

Interventional Radiology

RPS 1409b  
Peripheral arterial interventions

Moderators:  
Z. Bansaghi; Budapest/HU  
N.N.

RPS 1409b-K 11:15  
Keynote lecture  
K. S. Koulià; 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. Gyál; K. Szigeti, S. Osvald, J. Kiss, C. Csobay-Nováč, B. Nemes; Budapest/HU, 2Budakeszi/HU

RPS 1409b-2 11:31  
Endovascular thromboaspiration in acute superior mesenteric artery thromboembolic occlusion  
P. Persì, M. Femia, U. G. Rossi, P. Rigamonti, A. M. Ierardi, G. Carrafelli, M. Cariati; Genoa/IT, 2Milan/IT, 1Varese/IT

RPS 1409b-3 11:37  
A retrograde anterior tibial approach for SFA recanalisation: an alternative to the conventional antegrade technique  
G. Falcone, F. Fanelli, A. Cannavale, F. Mondaini, E. Casamassima, G. Gabbanì, V. Miele; 1Florence/IT, 2Rome/IT

RPS 1409b-4 11:43  
Percutaneous angioplasty with a drug-coated balloon (DCB-PTA) in femoropopliteal arterial disease  
G. Mazzarella, 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. Bianchi, A. Iacopino, G. Campidoglio, P. Palombo, A. Pace, M. Varrassi, S. Carducci, A. V. Giordano, C. Macciocchi; 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?  

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  

RPS 1409b-8 12:07  
Risk factors for macroembolisation in femoropopliteal interventions using the SpiderFX filter embolic protection device  
K. M. Treitl, M. Czihal, M. Treitl, Munich/DE

RPS 1409b-9 12:13  
Endovascular limb revascularisation in no-option critical limb ischaemia: distal deep foot vein arterialisation  
G. Cangiano, M. Silvestri, F. Pane, A. Borzelli, M. Coppola, A. Paladin, F. Corvino, F. Amiodoli, R. Niola; 1San Sebastiano al Vesuvio/IT, 2Naples/IT, 3Novara/IT

RPS 1409b-10 12:19  
Postpancreatectomy haemorrhage (PHH) after pancreaticoduodenectomy (PD): what is the role of interventional radiology (IR)?  
D. Palumbo, G. Guazzarotti, S. Gusmini, P. Marra, M. Salvioni, M. Venturini, F. de Cobelli; 1Milan/IT, 2Bergamo/IT

RPS 1409b-11 12:25  
Type II endoleak: go straight!  
G. Falcone, F. Fanelli, A. Cannavale, E. Chisci, M. Citone, S. Michelagnoli, V. Miele; 1Florence/IT, 2Rome/IT

Genitourinary

RPS 1407b  
Multimodality approach in imaging of the uterus and endometriosis

Moderators:  
M. Garbajs; Ljubljana/SI  
D. Negrù; Iasi/RO

RPS 1407b-K 11:15  
Keynote lecture  
N. Rubtsova

RPS 1407b-1 11:25  
A new MR scoring system for pelvic endometriosis: a feasibility study  

RPS 1407b-2 11:31  
Non-inferiority analysis of endometriomas using DIXON sequence in comparison with conventional pre-contrast volumetric T1 (VTV) sequence  
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
H. Leao Filho, E. Soares Souza, M. Figueredo Alves, M. Sousa Castro, A. Skaff; São Paulo/BR

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 magnetic resonance imaging (DW-MRI) and dynamic contrast-enhanced (DCE-MR) help us in differentiation?
M. Guizani, 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 1 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

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/CH

RPS 1407b-11 12:25
Diffusion kurtosis imaging of endometrial carcinoma
S. Satta, M. Dolcianni, F. Di Stadio, S. Capuani, L. Manganaro, C. Catalano; Rome/IT

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 tumours
S. Ursprung, R. A. Wolteck, 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
Extradomain-B fibronectin-targeting nanoprobe for FL/PA/CT trimodal 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

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. Schneppel, O. Fehler, M. Gerwing, M. Masthoff, W. Heindel, M. Wolfgruber, M. Eisenblaetter; Muenster/DE

RPS 1406-7 12:01
Cathepsin 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

RPS 1406-10 12:19
Histology of atherosclerotic plaque compared with tissue components measured using a spectral photon-counting CT

RPS 1406-11 12:25
CT radiogenomic characterisation of non-small cell lung carcinoma with EGFR and ALK mutation
G. Sharma, R. Sudhir, V. Koppula; Hyderabad/IN

Neuro

RPS 1411b Stroke
Moderators:
C. Trampedach; Køge/DK
J. Walecki; Warsaw/PL

RPS 1411b-K 11:15
Keynote lecture
C. Trampton; 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. Khurzhyle, 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. Ekert, H. Bömölter, M. Horger; Tübingen/DE

**RPS 1416b-4** 11:47

The influence of the MRI protocol on staging smouldering multiple myeloma patients according to the new SLIM–CRAB criteria

**RPS 1416b-5** 11:33

Radiogenomics in multiple myeloma
N. de Vos, J. C. Dutoit, M. Behaeghe, T. van Den Berghe, P. Vlummen, K. L. A. Verstraeten; 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. Krammer, 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. Maino2, C. R. G. L. Talei Franchesi2, 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 (WB-MRI) 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. Frittoli1, L. Graziol1; 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 Franchesi2, S. Sironi1; Monza/IT, Senago/IT, Milan/IT, Bergamo/IT
Musculoskeletal

RPS 1410b
Tumours and bone density

Moderators:
S. Mariani; L’Aquila/IT
M. Reijnierse; Leiden/NL

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

RPS 1410b-8 11:57
Treatment effects on osteoporotic vertebral compression fractures: a clinical long-term study of pain evaluation after vertebroplasty and kyphoplasty
T. J. Vogl, C. Hackbarth, N. N. N. Naguib; Frankfurt am Main/DE

RPS 1410b-9 12:03
Diffusion-weighted magnetic resonance and T1 heterogeneity predicts the response to treatment in sarcomas

Chest

RPS 1404b
Latest techniques in imaging of pulmonary vascular disease

Moderators:
L. Ebner; Berne/CH
N.N.

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

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. Ataf, K. Nikolau, 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
S. Boussour, A. Benattia, L. Gibault, F. Capron, P.-Y. Brillet, P. A. Gremier, H. Frank; E. Mousseaux, O. Sanchez; ’Paris/FR, ’Bobigny/FR

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, F. Rengier; ’Heidelberg/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, L. Greenspan, Y. Barash, S. Soffer, E. M. Marom, S. Apter, E. Koner, E. Kláng; ’Tel Aviv/IL, ’Ramat Gan/IL, ’Tel 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
RPS 1516-8 14:36
Low-energy virtual monoenergetic images from DECT can improve the accuracy of CT perfusion calculations
S. Skornitzke, H.-U. Kauczok, W. Stiller; Heidelberg/DE

RPS 1516-9 14:42
The apparent diffusion coefficient (ADC) allows early prediction of response after prophyllactic DC vaccination for pancreatic ductal adenocarcinoma (PDAC) prevention
A. J. Shengquang, M. Figini1, L. Pan1, J. Yang1, A. Ereseni, Y. Velichko1, V. Yaghamai, Z. Zhang; Chicago, IL/US, 2London/UK, 3Suzhou/CN

RPS 1516-10 14:48
The value in preoperative detection of pancreatic neuroendocrine tumours with spectral images derived from dual-layer spectral detector CT
Y. Yang, R. Li, J. Xu, Q. Han, X. Chen, F. Yan; Shanghai/CN

RPS 1516-11 14:54
Iodine concentration and tissue density in dual-energy contrast-enhanced CT as a potential quantitative parameter in early detection of local pancreatic cancer recurrence
R. M. Mathy, F. Fritz, W. Stiller, H.-U. Kauczok, S. Skornitzke; Heidelberg/DE

RPS 1516-12 15:00
Portal radiculoms in pancreatic head cancer: the relationship to the superior mesenteric vein resection margin
Y. Biao, X. Fang, L. Wang, J. Lu, G. Jin, H. Zhang; Shanghai/CN

RPS 1516-13 15:06
A radiomics approach to pancreatic adenocarcinoma characterisation compared to the routine evaluation of CE-MDCT tissue attenuation features
V. Tikhonova, I. Gruzdev, E. V. Kondratyev, G. Karmazanovsky; Moscow/RU

RPS 1516-14 15:12
Pancreatic solid pseudopapillary neoplasm: CT imaging appearance correlation with invasive behaviours
W. Mingliang, Z. Mengsu; Shanghai/CN

RPS 1516-15 15:18
The rate of muscle mass loss measured with CT is a prognostic marker in patients with unresectable pancreatic cancer receiving FOLFIRINOX
E. Salinas-Miranda, F. Khalvati, D. G. O’kane, X. Dong, D. J. Knox, O. Bathe, V. Barac, D. S. Gallinger, M. A. Haider; Toronto, ON/CA

14:00 - 15:30 Room Y

My Thesis in 3 Minutes

MyT3 15 - Genitourinary
Moderators:
D. Junker; Hall in Tirol/AT
E. Rud; Oslo/NO

MyT3 15-1 14:00
Diagnostic value of attenuation measurement of the kidney on unenhanced helical CT in obstructive urolithiasis
H. H. Shanbhag; Mumbai/IN

MyT3 15-2 14:04
Predictors of infectious complications following transrectal ultrasound-guided prostate biopsies in an Irish prostate cancer centre
R. R. Durganaudu, M. M. Morrin, R. Dunne; Dublin/IE

MyT3 15-3 14:08
Retrospective study of endovascular therapy for renal bleedings of arterial origin
A. Fialkovska1, B. Glodny2; 1Mannheim/DE, 2Innsbruck/AT, 3Birgitz/AT

MyT3 15-4 14:12
Multivessel Doppler in the evaluation of IUGR
H. Pobbati; Hyderabad/IN

MyT3 15-5 14:16
Magnetic resonance imaging and three-dimensional transperineal ultrasound evaluation of pelvic floor dysfunction in symptomatic women: a prospective comparative study
E. F. A. M. Tantawy, M. A. A. Basha, R. Almolla, H. Almasry; Zagazig/EG

MyT3 15-6 14:20
Comparison of multiparametric prostate MRI and PSMA gallium PET-CT efficiency: the intraductal component and cribriform pattern in intraprostatic tumour focus
A. Arslan, M. B. Tuna, L. Güner, Y. Sağlıcan, A. R. Kural, E. Karaarslan; Istanbul/TR

MyT3 15-7 14:24
Comparison of ADC-ratio vs mean ADC value of multiparametric MRI to predict the aggressiveness of prostate cancer
X. Wang, V. Schütz2, M. Görtz2, T. Dichty1, P. D. A. Stenzinger1, M. Hohenfellner1, H.-P. Schlemmer1, D. Bonekamp1; Heidelberg/DE, 2Hirschberg/DE

MyT3 15-8 14:28
Radio-frequency ablation of renal cancer T1a with externally cooled multitined expandable electrodes
P. Pagnini, U. V. Maestroni, S. Ferretti, S. Buti, M. de Filippo; Parma/IT

MyT3 15-9 14:32
Role of MRI to evaluate kidney volume in AKPD patients
G. Di Nino, E. Grassedonia, M. Guarnieri, L. La Grutta, G. Salvaggio, F. Midiri, M. Galia, T. V. Bartolometta, M. Midiri; Palermo/IT

MyT3 15-10 14:36
Texture analysis of MRI for differential diagnosis of renal masses
M. Erşen1, H. T. Sanal1, M. Taşar1, A. Keskin1, M. Ş. Günes2; Ankara/TR, 2Istanbul/TR

MyT3 15-11 14:40
68Ga-PSMA PET/CT in biochemically recurrent prostate cancer: when do we miss it and why?
I. Zelsky; Yekaterinburg/RU

MyT3 15-12 14:44
Multiple mathematical models of diffusion-weighted imaging for evaluation of prognostic features in endometrial cancer
O. Zhang, X. Zhao, H. Ouyang; Beijing/CN

MyT3 15-13 14:48
High b-values in DWI for prostate cancer detection: what to acquire and what to compute?
M. Schoeniger1, H. Seuss1, F. Laun1, J. Martin1, T. Kuder1, R. Janka1, A. Cavallaro1, M. Uder1, M. Hammon1; Erlangen/DE, 2Heidelberg/DE

MyT3 15-14 14:52
Multiparametric magnetic resonance imaging (mp-MRI) in the evaluation of prostate cancer based on PIRADS V2 on 1.5 T without endorectal coil
S. M. Ingole, R. U. Mehta, Z. Kazi; Mumbai/IN

MyT3 15-15 14:56
Detection of peritoneal metastases from ovarian cancer: a comparison between 3T MRI and surgical findings
M. A. Szadkowska, J. P. Pałucki, J. Kuśnierz, M. E. Gumowska, K. Sloboda, J. M. Poziemska, M. Bidziński, A. Cieszanowski; Warsaw/PL

MyT3 15-16 15:00
Documenting the radiation diagnosis of stress urinary incontinence in females
H. Nechyporenko; Grodkno/BY

MyT3 15-17 15:04
Dual-energy computed tomography in the diagnostics of urolithiasis
L. Kapanadze, N. S. Serova, V. Rudenko, K. Alexandrova; Moscow/RU

MyT3 15-18 15:08
Dynamic perfusion computed tomography in assessing of urogenital allografts
I. O. Shchekoturov, R. F. Bakhtiozin, A. L. Istranov; Moscow/RU

MyT3 15-19 15:12
Bladder pathology: is it that easy?
C. A. B. Oliveira, V. Mendes, A. C. G. Costa; Braga/PT
MyT3 15-21 15:16
Renal duplex in evaluation acute glomerulonephritis in children with laboratory and histopathological correlation
R. M. Ellessy1, R. H. Hashem2, S. M. Kamel1, D. Salah2; "Giza/EG, "Cairo/EG

MyT3 15-22 15:20
Vescicoureteral reflux imaging in paediatric patients: can cystosonography replace micaturiating cystourethrogram?
P. Lomoro1, A. Citterio1, I. Simonetti2, A. L. Nanni3, V. Fichera4, L. Preda4, M. S. Prevedoni4; "Pavia/IT, "Naples/IT, "Florence/IT

MyT3 15-23 15:24
Computed tomography of pelvic varicocele in adolescents with urological pathology
U. Polyakovs, I. Melnikov, M. Ublinsky; Moscow/RU

MyT3 15-24 15:28
Preoperative radiographic predictors of major vascular reconstructions in patients with tibial bone cancer undergoing postchemotherapy residual tumour resection (PC-RPLND)

RPS 1610
Muskuloskeletal

Knee and lower extremities

Moderators: A. Barile; L’Aquila/IT

RPS 1610-1 16:00
Intra- and inter-rater reliability of a new osteoarthritis radiographic scale for anterior cruciate ligament deficient knees
R. E. A. Walker1, F. Mulji1, P. Bertiche2, D. J. Hunter1, D. Chan1, N. N. A. Barile; L’Aquila/IT

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. Turmezza1, S. B. L. Low1, N. Segal2, G. M. Treece3, A. H. Gee3, J. Lynch4, K. E. S. Poole1; "Norwich/UK, "Kansas City, KS/US, "Cambridge/UK, "San Francisco, CA/US

RPS 1610-3 16:12
The natural history of new horizontal meniscal tears in individuals at risk for and with mild to moderate osteoarthritis: data from the osteoarthritis initiative
M. S. Posadzy1, G. B. Joseph1, C. McCulloch1, M. Nevitt1, J. Lynch1, N. E. Lane1, T. M. Link3; "San Francisco, CA/US, "Sacramento, CA/US

RPS 1610-4 16:18
C. Germar1, G. Marbach, F. Civardi, S. Fucentese, R. Sutter, C. W. A. Pfirrmann, B. Fritz; Zurich/CH

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. Rajan1, G. Nanda, V. K. Venugopal, M. Murugavel, V. Mahajan, H. Mahajan, S. Gupta; "New Delhi/IN

RPS 1610-6 16:30
Graft healing following anterior cruciate ligament reconstruction: a longitudinal DTI study
P. van Duyce1, M. Froeling1, E. de Smet1, P. Verdonk1, C. H. Heusdens, A. Ribbens, T. Billiet; "Edegen/BE, "Utrecht/NL, "Deurne/BE, "Leuven/BE

RPS 1610-7 16:36
3D TSE MRI diagnostic accuracy compared to 2D TSE MRI for the detection of meniscal injuries with arthroscopic correlation
P. J. E. Yasin1, W. A. Gouda; Menofia/EG

RPS 1610-8 16:42
The utility of axial strain elastography in youth basketball players with a clinical diagnosis of patellar tendinopathy

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 fascitis
H. Y. R. 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

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. Reijnierse, 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. Berardo1, M. Broos2, J. G. G. Dobbe2, M. Maas2, G. J. Streekstra3, R. H. H. Wellenberg4, Novara/IT, "Amsterdam/NL

RPS 1610-15 17:24
Establishing quantitative measures for detecting subtle calcaneonavicular coalition: a case-control study
S. Rajan1, V. K. Venugopal, H. Mahajan, V. Mahajan, S. Gaur; New Delhi/IN

16:00 - 17:30 Room C

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. Rinaldi1, F. B. F. Botta1, A. Di Gioia, A. Sykes2, F. Gleeson2, L. Srinivasan3, D. Stavroulais2, D. Di Chiara2, N. Rahman2; L’Aquila/IT, "Oxford/UK

S 16-3 16:25
CT texture analysis in PET-negative lung cancer
J. Daffina1, D. Caruso, M. A. Tipaldi, M. Zerunian, 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, T. Nyholm; Umea/SE
**RPS 1609-8** 16:42
Which women affected by uterine fibroids can be selected for MRgFUS treatment? Our experience
I. Capretti, L. P. Vazzana, S. Iafrate, E. Cannizzaro, F. Arrigoni, M. Di Luzio, S. Mascaretti, G. Mascaretti, C. Masciocchi; L’Aquila/IT

**RPS 1609-9** 16:48
Results after endovascular uterine artery embolisation in the treatment of symptomatic leiomyoma
D. Tazhibaev, B. Abishev; Nur-Sultan/KZ

**RPS 1609-10** 16:54
Melting time analysis of radiographic ice-balls during thawing in renal cryoablation: a proposal for the optimal time of cryoprobe removal
M. J. Kim, S. Y. Park; Seoul/KR

**RPS 1609-11** 17:00
Pregnancy results: favourable outcomes and fertility perspectives in women treated by MRgFUS for uterine fibroids
L. P. Vazzana, I. Capretti, S. Iafrate, F. Arrigoni, M. Di Luzio, S. Mascaretti, G. Mascaretti, C. Masciocchi; L’Aquila/IT

**RPS 1609-12** 17:06
Percutaneous thermal ablation of small renal tumours: a single-centre experience
G. Dar, N. Goldberg, A. Lorber, L. Appelbaum; Jerusalem/IL

**RPS 1609-13** 17:12
Clinical and economic impact of transperineal laser ablation (TPLA) for treating focal unilateral prostate cancer
G. Manenti, T. Perretta, S. Marsico, C. P. Ryan; D. D’amato, M. Martins-Favre; S. Regusci; Rome/IT, Geneva/CH

**RPS 1609-14** 17:18
Decision-making between radiofrequency and cryoablation based on tumour size, central location, and nearness to the collecting system for the management of cT1 RCC: a comparative study of 408 patients

**RPS 1609-15** 17:24
Adrenal glands haemorrhages: embolisation in an acute setting
F. Giurazza, F. Corvino, F. Pane, M. Silvestre, M. Coppola, R. Niola; Naples/IT

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**RPS 1611-3** 16:00
Functional MRI and diffusion tensor imaging
Moderators:
D. Auer; Nottingham/UK

N.N.

**RPS 1611-1** 16:00
Resting-state functional magnetic resonance imaging in predicting the long-term functional outcome after acute ischaemic stroke

**RPS 1611-2** 16:06
The application of resting and task state fMRI in common exotropia
V. Sonori, J. Chu, H. Han; Xiamen/CN, Guangzhou/CN

**RPS 1611-3** 16:12
BOLD fMRI mapping of the language network: comparative assessment of task-based and resting-state fMRI
V. Lolli, S. Wastling, L. Mancini; Brussels/BE, London/UK
16:00 - 17:30 Room Y

**My Thesis in 3 Minutes**

### MyT3 16

#### Cardiac

**Moderrators:**
- C. A. Minoiu; Bucharest/RO
- R. Salgado; Antwerp/BE

**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 16-3 16:04**

*Assessment of translingual neurostimulation in the treatment of symptomatic Parkinson’s disease: a randomised controlled trial*

S. Chacon, J. Melián; Madrid/ES

**MyT3 16-5 16:12**

*CT angiographic graft patency after minimally invasive multivessel coronary bypass surgery*

O. Drozdova, M. Snegirev; St. Petersburg/RU

**MyT3 16-6 16:16**

*Evaluation of segmental viable myocardium using low-dose dobutamine stress cardiac MRI with tissue tracking*

B. He, F. Gao; Chengdu/CN

**MyT3 16-7 16:20**

*Myocardial CT perfusion imaging for the detection of obstructive coronary artery disease: intra-individual comparison of half scan and multisegment reconstruction*

D. Preuß; G. Garcia, M. Laule, M. Dewey, M. Rief; Berlin/DE

**MyT3 16-8 16:24**

*CT texture analysis of the myocardium in patients affected by aortic stenosis: a potential new tool?*

F. Vecchiotto, G. M. Agazzi, F. Filipini, C. Fiorina, L. Lupi, M. Ravanelli, D. Farina; Brescia/IT

**MyT3 16-9 16:28**

*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

**MyT3 16-10 16:32**

*Clinical implications of measuring epicardial adipose tissue quantity in healthy individuals using 3T MRI images in vivo with 3D UTE imaging*

A. A. Bak, S. Momraza; Amsterdam/NL

**MyT3 16-11 16:36**

*The use of CTPA in the evaluation of heart failure in the acute setting*

L. O’halloran, J. O’Brien; Limerick/IE, Limerick/IE

**MyT3 16-12 16:40**

*Comparison of half scan and multisegment reconstruction detection of obstructive coronary artery disease: intraindividual comparison of half scan and multisegment reconstruction*

X.-Z. Zhou, K. Shi, Z.-G. Yang; Chengdu/CN

**MyT3 16-13 16:44**

*A comparative study between cardiac computed tomography and magnetic resonance imaging in the assessment of cavopulmonary anastomosis*


**Moderators:**
- C. A. Minoiu; Bucharest/RO
- R. Salgado; Antwerp/BE
MyT3 16-14 16:48
Optimised short breath-holding time protocol for subtraction coronary CT angiography
N. Xu, J. Xing, X. Meng; Shanghai/CN

MyT3 16-15 16:52
Very low volume of contrast material in pre-TAVI CT: how low can we get?
P. Olga, A. Wolak, R. Wolff, Y. Almagor, N. R. Bogot; Jerusalem/IL

MyT3 16-16 16:56
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. Drobi, B. Merkely, P. Maurovich-Horvat; Budapest/HU

MyT3 16-17 17:00
Radiological visualisation in the diagnosis of potentially life-threatening conditions of an athlete’s pathological heart
B. Sergey1, V. Sukhov2, D. Pospelov2, E. Achkasov1; 1Moscow/RU, 2St. Petersburg/RU

MyT3 16-18 17:04
 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

MyT3 16-19 17:08
Aortic valve calcification scoring with computed tomography: the impact of advanced modelled iterative image reconstruction
R. M. M. Hinzpeter, F. Maisano, A. M. Kasel, F. Tanner, H. Alkadhi, M. Eberhard; Zurich/CH

MyT3 16-20 17:12
Histogramical 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
L. Zhang, Y. Guo, H. Xu, M. Yang, R. Xu, Z. Yang, C. Fu; Chengdu/CN

MyT3 16-21 17:16
Evaluation of image quality and radiation dose with prospective ECG-gated 80-slice CT angiography in 182 consecutive children examinations with congenital heart disease
P. de Cambourg, P. Guérin, H. Necib, K. Warin Fresse; Nantes/FR

MyT3 16-22 17:20
Myocardial extracellular volume assessment in a cohort of oesophageal cancer patients using routine contrast-enhanced CT
**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

RPS 1714-2 08:36
Multimodal and theranostic iodinated-porphyrins contrast agents: synthesis, x-ray attenuation, and cytotoxicity evaluation
R. M. S. C. Pereira, C. Luis, M. D. G. P. M. S. Neves, R. Fernandes, M. D. 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
M. Gulizia, J. N. Hyacinthe, O. Lorton, L. A. Crowe, R. Salomir; Geneva/CH

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
K. Borg Grima, P. Bezzina; Msida/MT, Naxxar/MT, Malta/MT, Dubai/IE

RPS 1714-5 08:54
The optimisation of computed tomography dose levels in 18F-FDG PET-CT oncology examinations
R. 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; Kingsberg/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. Zarb; 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

RPS 1714-13 09:42
Exposure factors selection: a new model for patients with obesity in projection radiography
S. J. M. Alqahtani, K. Knapp, J. R. Meakin, R. M. Palfrey; Exeter/UK

RPS 1714-14 09:48
The optimisation of DR chest x-ray images using artificial intelligence: a pilot study

RPS 1714-15 09:54
Radiographers’ practice and the main reasons for the use of fluoroscopy to position patients during conventional radiography procedures
L. Hirshi, S. Rey, R. Le Coutre, M. Chapendar; La Chaux-de-Fonds/CH, Lausanne/CH
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, ‘Maastricht/NL
RPS 1709-10 09:34
Non-invasive assessment of portal hypertension with spectral CT iodine density: a correlated 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 intraprocedural fluoroscopy for the guidance of portal vein puncture during transjugular intrahepatic portosystemic shunt placement
T. Meine1, T. Wernccke1, M. Kirstein1, S. K. Maschke1, C. Dewald1, L. S. Becker1, F. Wacker1, B. C. Meyer2, J. B. Hinrichs1; ‘Hanover/DE, ‘Bremen/DE
RPS 1709-12 09:46
Application of a liver biopsy as a treatment strategy determinant in Budd-Chiari syndrome
F. Rafiee, A. Raseki, B. Geramizadeh, H. Laalinia, P. Keshavarz; Shiraz/IR
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. Sparacia1, 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. Mayerhofer; Vienna/AT
RPS 1705-1 08:30
The worrisome impact of an inter-rater bias on neural network training
O. Shwartzman, H. Gazit, I. Shelef, T. Riklin-Raviv; Tel-Aviv/IL
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
B. D. Winkel1, H.-C. Breit1, A. Ezzi2, B. Stieltjes1; ‘Amsterdam/NL, ‘Budapest/HU
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. Distefor1, D. Kügler1, A. Rajkarnikar2, M. Uecker1, T. J. Vogli1, D. A. Mukhopadhyay3; ‘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. Sahu1, B. Aggarwal; ‘New Delhi/IN

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. Ali-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
RPS 1707-4 08:48
Veno-arterial index (VAI): a promising tool for renal transplant rejection
F. Lubinus1, E. Zuñiga1, S. Vera1, E. Villarreal1, M. Ochoa1, J. C. Mantilla2
1Bucaramanga/CO, 2Floridablanca/CO

RPS 1707-5 08:54
Quantitative analysis of wash-out parameters on an MRI DCE T1 weighted-sequence in adenral lesions with a heterogeneous signal drop on chemical shift imaging
P. Galata1, A. Stanzione1, F. Verde1, V. Romeo1, R. Luazzi2, P. P. Mainenti2, E. Guadagno1, A. Brunetti1, S. Maurea1, Naples/IT

RPS 1707-6 09:00
Role of diffusion-weighted imaging in the characterisation of renal masses
A. Sever1, M. Yalcın2, A. A. Demir1, Y. Savas1; Istanbul/TR

RPS 1707-7 09:06
The change of total kidney volume after renal transplant in patients with autosomal polycystic renal disease: does it play a role in the indications and optimal timing decision for native resections?
L. Marcolin1, L. M. Cacioppa1, M. Ruggeri1, G. Scalas1, N. Sciascia1, I. Capelli2, R. Golferi1, G. La Manna1; Bologna/IT

RPS 1707-9 09:12
VI-RADS: do we really need all multiparametric data?
J. Gmeiner1, N. Garstka1, S. Sevcenco1, P. A. T. Baltzer2; Vienna/AT

RPS 1707-10 09:18
Diffusion tensor imaging (DTI) images + T2-weighted 3D CUBE sequences: a potential additional tool to mpMRI in differentiating non-muscle from muscle-invasive bladder cancer on a 3T scanner
D. Fierro1, M. Pecoraro1, S. Cipollari1, R. Campo1, V. Salvo1, C. Catalano1, V. Panebianco1, Rome/IT

RPS 1707-11 09:24
Evaluation of diffusion kurtosis imaging versus standard diffusion-weighted imaging in the assessment of the pathological grade of clear-cell renal cell carcinoma
J. Cao1, B. He1, X. Luo1, X. Sun1; Zibo/CN

RPS 1707-12 09:30
Imaging protocols for renal multiparametric MRI and MR urography: results of a consensus conference from the French Society of Genitourinary Imaging
O. Rouviere1, Lyon/FR

RPS 1707-13 09:36
Validation of vesical imaging reporting and data systems in bladder tumours: assessment of muscle invasion
S. H. Kim1, H. S. Park1, S. H. Cho1, Daegu/KR

RPS 1707-14 09:42
Validation of a prospective assessment of the vesical imaging-reporting and data system (VI-RADS) in high-risk non-muscle invasive bladder cancers (NMIBC) candidate for repeated transurethral resection
M. Pecoraro1, S. Cipollari1, R. Campo1, F. Del Giudice1, G. Simone1, E. de Berardinis1, C. Catalano1, V. Panebianco1; Rome/IT

RPS 1707-15 09:48
The potential of apparent diffusion coefficient values as an independent marker for tumour aggressiveness in non-muscle-invasive bladder cancer
A. Rahota1, P. Medan1, B. Petrescu1, A. Tamas-Szora1, R. Rahota1, N. Crisan1, A. Lebovici1; Oradea/RO, 2Cluj/RO, 1Tg. Mures/RO

MyT3 17 Head and Neck

MyT3 17-1 08:30
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. Agarwal1, A. Prakash1, N. Mannan1, M. Grover1; Jaipur/IN

MyT3 17-2 08:34
Noise-optimised virtual monoenergetic imaging of dual-energy CT: effect on contrast agent artifacts reduction on carotid CTA examination
J. Fu2, Y. Zeng2, J. Zhang1; Shanghai/CHN

MyT3 17-3 08:38
Ultra-high frequency ultrasound (UHFUS) of the minor salivary gland in patients with Sicca syndrome
A. Marcucci1, S. Vitali2, Pisa/IT

MyT3 17-4 08:42
Response evaluation of choroidal melanoma after brachytherapy using diffusion-weighted magnetic resonance imaging (DW-MRI): preliminary findings
F. Bitencourt1, A. Bitencourt1, J. D. O. Souza1, N. Neves1, M. Chojniak1, R. Chojniak1; São Paulo/BR, Salvador/BR

MyT3 17-5 08:46
The evaluation of the maculaopathy using dynamic contrast-enhanced MRI in patients with proliferative diabetic retinopathy
Z. Chen1, M. Liu1, L. Ma; Beijing/CHN

MyT3 17-6 08:50
The relationship of severity of migraine and the optic nerve sheath diameter measured by ultrasonography in patients admitted to an emergency department
I. Kanbur1, H. Topacoglu1; Vienna/AT, Istanbul/TR

MyT3 17-7 08:54
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
I. A. Garza Rico1, R. A. Cuéllar Lozano1, R. Pinales Razo1, N. G. Jasso Ramirez1; Monterrey/MX

MyT3 17-8 08:58
Role of magnetic resonance imaging in patients with temporomandibular joint pain
P. N. A. D. Mohamed Abouelhoda1, R. A. M. A. Helal1, A. A. Megahed1; New Delhi/IN

MyT3 17-9 09:02
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 Zakii1, P. Chatterjee1, R. Ravikumar1; Nagoor/IN, Guwahati/IN, Chennai/IN

MyT3 17-10 09:06
MDCT evaluation of neck masses in adults
A. Kotwal1, A. N. Kamble1; New Delhi/IN

MyT3 17-11 09:10
Neurologic dysphagia: does the percutaneous endoscopic gastrostomy (PEG) treatment really decrease the incidence of aspiration pneumonia?
L. Perrucci1, M. Stantieru1, M. Giganti1, R. Galeotti1; Ferrara/IT
MyT3 17-12 09:14
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
T. Neelivathy Thazha Kunj1, A. Sood1, R. Kr1, S. K. Bhadada2, B. R. Mittal3, A. Behra3, U. N. Saki1, D. S. Rao1; Calicut/IN, 2Chandigarh/IN, 3Dortroit, MI/US

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

MyT3 17-14 09:22
A comparative study for diagnostic performance of shear wave elasticity and diffusion-weighted MRI in cervical lymph nodes
V. S. Civitakis, E. Ertikin, Aydin/TR

MyT3 17-15 09:26
Role of magnetic resonance apparent diffusion coefficient in assessment of solitary thyroid nodule
E. H. A. Emara1, H. Mansour2, A. Bessar2, I. Lebda2; 1Zagazig/EG, 2El-Shaikh/EG, 3Zagazig/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. Hu1, X. Wang2; 1Wuxi/CN, 2Zhenjiang/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/ES

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 unangled radial quiescent-interval slice-selective MRA at 1.5T
S. Peters1, M. Huhnordt, J.-K. Ulf1, I. Kottzoglou2, R. Edelman3, J. Graessner4, M. Both1, O. Jansen1, M. Salehi Ravesh1; 1Kiel/DE, 2Eviston, IL/US, 3Hamburg/DE

MyT3 17-21 09:50
Chest

RPS 1704-2 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. Buis1, S. Bayat2, G. van Gompel1, S. Verbanck1, E. Invers1, T. van Cauteren1, J. de Mey2; 1Brussels/BE, 2Grenoble/FR, 3Jette/BE

RPS 1704-5 08:54
Non-contrast-enhanced 3D-UTE MRI for pulmonary imaging of immunocompromised patients during haematopoietic stem cell transplantation
C. Metz1, D. Böckle1, J. F. Heidenreich1, A. Weng1, T. Benkert1, G. U. Grigoleit1, T. A. Bley1, H. Köstler1, S. Velthooven1; 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-González1, M. Roca-Sogorb2, F. García-Castro2, A. Alberich-Bayarri3; 1Alzira/ES, 2Valencia/ES

RPS 1704-7 09:06
Visualisation of combined dark-field and attenuation chest x-rays from patients
R. C. Schick1, W. Noichl1, T. Urban1, M. Frank1, K. Willer2, J. Mohr2, T. Köhler2, J. Herzen2, P. Pfeiffer3; 1Garching/DE, 2Karlsruhe/DE, 3Hamburg/DE

RPS 1704-8 09:12
X-ray dark-field chest radiography: optimal noise filtering for best image quality
Y. N. Leonardt1, J. H. W. Bodden1, K. Willer2, M. Frank2, A. A. Fingerle1, T. Koehler2, D. Pfeiffer3, E. J. Rummenny1, F. Pfeiffer1; 1Munich/DE, 2Garching/DE, 3Hamburg/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. Noichl1, F. de Marco1, K. Willer2, T. Urban1, M. Frank1, R. C. Schick1, T. Koehler2, J. Herzen2, P. Pfeiffer3; 1Garching/DE, 2Hamburg/DE

RPS 1704-10 09:24
X-ray Darkfield Chest Radiography: Evaluation of Diagnostic Image Quality in Inspiration and Expiration
C. Müller-Leissle1, T. Urban2, R. C. Schick1, G. Zimmerman1, T. Koehler1, D. Pfeiffer1, A. A. Fingerle1, E. J. Rummenny1, F. Pfeiffer1; 1Munich/DE, 2Garching/DE, 3Hamburg/DE

RPS 1704-11 09:30
X-ray dark-field chest radiography: discussion of image signal dependencies of patients biometric data
F. Meurer1, M. Frank1, W. Noichl1, G. Zimmermann1, T. Koehler1, A. A. Fingerle1, D. Pfeiffer1, E. J. Rummenny1, F. Pfeiffer1; 1Munich/DE, 2Garching/DE, 3Hamburg/DE

RPS 1704-12 09:36
X-ray dark-field chest radiography: comparison of 70 kVp grating-based attenuation chest x-ray image quality with conventional chest x-rays
M. Renz1, M. Kattau2, T. Urban1, G. Zimmermann1, T. Köhler1, D. Pfeiffer1, A. A. Fingerle1, E. J. Rummenny1, P. Fieffer1; 1Munich/DE, 2Garching/DE, 3Hamburg/DE

08:30 - 10:00 Coffee & Talk 3

Chest

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. Wozniatza1, A. Devaraj1, N. Haye1, D. Togher1, N. Arumalla1, E. Skyllberg1, B. Ghimire1, Z. Shah1, D. R. Baldwin1; 1London/UK
2Nottingham/UK
3Nottingham/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. Fingerle5, T. Koehler6, D. Pfeiffer7, E. J. Rummery8, F. Pfeiffer9, 1; Munich/DE, 2; Hamburg/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. Willer, W. Noichl, A. Sauter, G. Zimmermann, T. Köhler, D. Pfeiffer, E. J. Rummery, 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. Frank1, R. C. Schick1, J. Mohr1, T. Koehler1, J. Herzen1, F. Pfeiffer1, 1; Garching/DE, 2; Karlsruhe/DE, 3; Hamburg/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?
S. Mariani1, L. Zugaro2, A. Barile2, C. Masciocchi2, 1; Rome/IT, 2; L’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. Formiconi; 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. Rajan, N. S. Batta, H. Mahajan, V. Mahajan, 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

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; R. Faza, R. Nazir, B. Yawar Faiz, R. Aqeel; Islamabad/PAK

RPS 1710-10 09:34
Direct visualisation of finger flexor pulley injuries at 3T and 7T MRI: an ex vivo feasibility study
R. Heil; C. Lutter2, R. Janka1, M. Uder1, V. Schöffl1, F. W. Roemer1, T. Bayer2; Erlangen/DE, 1; Rostock/DE, 1; Bamberg/DE

RPS 1710-11 09:40
Low-dose CT scanning of the clavicula for age estimation: loss of confidence?
S. Gassenmaier, J. F. Schäfer, K. Nikolau, 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
E. 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. Chumsaengsri, S. Ruengdit, C. Madia, K. Mekjaidee, S. Prasitwanataseree, P. Mahakanukrath; 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

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. Hayes; H. Wright, E. Bloomquist; Hollywood, FL/US

RPS 1802-3 10:42
MRI prediction of response to neoadjuvant chemotherapy in breast cancer: a comparison between patients with and without tumoral calcifications on mammography
T. Sella, B. Simor, B. Maley, E. Carmon; Jerusalem/IL

RPS 1802-4 10:48
DWI-based response evaluation after neoadjuvant systemic treatment of breast cancer: comparison with RECIST-based criteria
R. Ota; M. K. Kataoka1, M. Iima1, M. Honda2, S. Kanao1, T. Kataoka1, M. Toi1, K. Togashi1; Kyoto/JP, 2; Osaka/JP
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. Rossa, L. Torri, S. de Giorgis, M. Calabrese, A. Tagliafico; Genoa/IT

RPS 1802-6 11:00
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, Y. J. Gu; Shanghai/CN

RPS 1802-7 11:06
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; Jeddah/SA

RPS 1802-8 11:12
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. Smidt, K.-F. Kreitner, T. Emrich; Maastricht/NL

RPS 1802-9 11:18
MRI morphologic criteria can better predict the response after neoadjuvant chemotherapy (NAC) in axillary lymph nodes (ALN)?
X. Mei, J. Ma, X. Lin, C. Yi; Shenzhen/CN

RPS 1802-10 11:24
MRI response evaluation after neoadjuvant chemotherapy: what are the factors of radiologic-pathologic discordance?
S. Mevlütoğlu; O. Aslan; I. G. Bilgen; A. D. Oktay Alfatli; L. Yeniay; O. Zekioğlu; Izmir/TR; Borova-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, A. Lebenatus; Izmir/TR

RPS 1802-12 11:36
Breast MRI affects overall survival but not disease-free survival in breast cancer patients: a retrospective population-based study
T. van Nijnatten, L. van Tiel, A. C. Voogd, D. R. Klotz; London/UK

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. Abdelli-Fatah, J. Walker, K. D. Jethwa, L. Chan, Nottingham/UK

RPS 1802-14 11:48
Bone marrow signal intensity on breast MRI in women with breast cancer
I. Bokrov; P. M. Sklar Levy; D. M. Ben-David; D. O. Haisraely; Revohov/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; Turin/IT

RPS 1803 10:30 - 12:00
Cardiac

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 17-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
A. Palmisano, G. Benedetti, M. Gatti, R. Faletti, N. Galea, M. Francone, A. Del Maschio, F. de Cobelli, A. Esposito; Milan/IT, 1London/UK, 2Leiden/NL, 3Turn/T, 4Rome/IT

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 (eT1): a new CMR parameter to detect myocardial hyperemia in acute myocarditis
A. Palmisano, G. Benedetti, R. Faletti, M. Gatti, N. Galea, M. Francone, F. de Cobelli, A. Del Maschio, A. Esposito; Milan/IT, 1London/UK, 2Leiden/NL, 3Turn/T, 4Rome/IT

RPS 1803-7 11:06
Derived-CMR strain efficacy in myocardial inflammation: a retrospective comparison with standard practice

RPS 1803-8 11:12
Coronary inflammation by CT pericoronary fat attenuation in MI NOCA and Tako-Tsuo 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

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. Hoffmann, S. Benz, C. Düber, R. Kloekner, T. Muenzel, P. Wenzel, K.-F. Kreitner, T. Emrich; Mainz/DE
**Head and Neck**

**RPS 1808**

**Imaging of the neck: more than thyroid**

Moderators:
- N.N.
  - N. I. Traykova; Plovdiv/BG
- M. Muca; L. Pagni; M. G. Belgrano; M. A. A. Cova; Trieste/IT
- G. Brancatelli; Ancona/IT
- F. Vernuccio; R. Cannella; S. Greco; G. Cabibbo; V. Di Marco; C. Cammà; Turin/IT
- E. Arsovic; S. Akkari; U. Scemama; M. Montava; J. P. Lavieille; N. Fakhry; Reims/FRA
- A. Meloni; L. Pistoia; G. Restaino; N. Schicchi; R. Righi; A. Vallone; V. Violi; S. Lewis; J. Liao; M. Hulkower; M. Hernandez Meza; G. Hadjipanayis; Jacksonville/US
- C. K. Lee; Ansan-Si/KR
- Z. Saloojee; F. Hosseini-Ardehali; London/UK

**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 traumatic neuromas after lateral neck dissection in thyroid cancer patients: a cross-sectional study

V. Marcos; F. L. Pereira; M. Schelini; M. H. Tsunemi; R. B. Domingues; J. Kettenbach; St. Pölten/AT

**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; Kolkata/IN; Bankura/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. Saloupee; F. Hosseini-Ardehali; London/UK

**RPS 1808-6** 11:00

The added value of preoperative multiparametric ultrasound in primary hyperparathyroidism: correlation with sцинтigraphy and histology

S. Pavlovics; M. Radzina; A. Ozolins; Z. Narbutas; P. Prieditis; M. Tiran; 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. Chep; 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. Arsovic; S. Akkari; U. Scemama; M. Montava; J. P. Lavieille; N. Fakhry, Reims/FRA

**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


**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 1808-11** 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 1808-12** 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 1808-13** 11:42

Can morphological analysis be useful for the detection and characterisation of adenomas in parathyroid MR imaging?

C. Z. Karaman; V. S. Öztürk; O. Abdullayev; Aydyn/TR

**RPS 1808-14** 11:48

Advanced visualisation of peroneal artery perforators prior to autologous transplantation in head and neck surgery by dual-energy CTA and semi-automated vessel unfolding

M. Wiesmüller; W. Wuest; C. Düber; R. Heiss; C. Treutlein; M. S. May; Erlangen/DE

**RPS 1808-15** 11:54

Pericardial effusion is a marker of increased cardiac mortality in thalassemia major patients

A. Meloni; L. Pistoia; G. Restaino; N. Schicchi; R. Righi; A. Vallone; M. Delio Iacono; V. Postano; A. Pepe; Pisa/IT; Campobasso/IT; Ancona/IT; Ferrara/IT; Catania/IT; San Giovanni Rotondo/IT

**Oncologic Imaging**

**RPS 1816**

**Liver tumours: advanced imaging, radiomics and treatment effects**

Moderators:
- J. Amorim; Porto/PT
- J. Kettenbach; St. Pölten/AT

**RPS 1816-1** 10:30

Abbreviated MRI for HCC screening: a comparison of non-contrast, dynamic contrast-enhanced, and hepatobiliary phase sets

N. Vietti Violii; S. Lewis; J. Liao; M. Hulková; G. Hernandez Meza; J. S. Babbi; S. Kihiara; K. Sigel; B. Taouli; Lausanne/CH; New York, NY/US

**RPS 1816-2** 10:36

The predictive value of the liver imaging reporting and data system with contrast-enhanced ultrasound (v2017) in the risk of hepatocellular carcinoma in a high-risk population

J. Ding; L. Long; H. Zhou; Y. Zhou; Y. Wang; X. Jing; Tianjin/IN

**RPS 1816-3** 10:42

Direct-acting antiviral agents in HCV patients and risk of occurrence and recurrence of HCC: is it still a clinical dilemma?

F. Vernuccio; R. Cannella; S. Greco; G. Cabibbo; V. Di Marco; C. Cammà; M. Midiri; G. Brancatelli; Palermo/IT

**Sunday**
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. Tonpe; 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. Fogg; 1 B. L. Tarnoki; 1 H. Horváth; 1 E. Medda; 2 C. Baracchini; 2 A. Sas; 3 C. Oláh; 3 L. Kostyal; 1 A. Tarnoki; 1 Budapest/HU; 1 Rome/IT; 1 Padua/IT; 1 Miskolc/HU; 3 Malyi/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 unicentre study
C. Deuschl; M. Darkwah Oppong; K. Wrede; M. Forsting; A. Radbruch; M. Sonntag; C. Mönninghoff; 2 Essen/DE; 2 Heidelberg/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 Chandra; U. Jaipal, M. Bagarhatta, M. Agarwal, A. Chandra; Jaipur/IN

MyT3 18-14 11:10
Evaluation of parameter changes in lateral lumbarosacral radiography of patients with and without lumbar spinal stenosis in magnetic resonance imaging (MRI)
N. Merd; M. Dündüz; Isparta/TR

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. Park; 1 B. Hwang; 1 S. Park; 1 S. Y. Kim; 1 Seoul/KR; Goyang-si, Gyeonggi-do; 1-4

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. Bashah; S. Abdelaziz Aly; Zagazig, AL/EG; 4-Benha/EG

RPS 1816-6 11:00
The prognostic value of LI-RADS classification in patient candidates for orthotopic liver transplantation
J. R. Kröger, T. Persigehl, D. Maintz, A. Bunck; Berlin/DE, New Haven/CT, US

RPS 1816-7 11:06
Contrast-enhanced ultrasound adds value to the differentiation of hepatic neuroendocrine neoplasms from hepatocellular carcinomas
J. Huang, X. Xie; Guangzhou/CN

RPS 1816-8 11:12
The development and validation of a radiomics nomogram for predicting transarterial arterial chemoembolisation refractoriness of hepatocellular carcinoma
J. S. Kim, H. Sheen, J. K. Lee, S. Y. Baek; 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 Violi; 1 S. Hectors; 2 J. Gnerre; 2 A. Law; 2 M. I. Fiel; 2 B. Taouli; 2 Brussels/BE, 2 Pozzuoli/IT, 2 Milan/IT, 2 London/UK, 2 Sutton/UK, 2 Erlangen/DE, 1 Treviso/IT

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. Polidori; M. A. Tipaldi, D. Caruso, E. Ronconi, M. Zerunian, M. Rossi, A. Laghi; Rome/IT

RPS 1816-11 11:30
Molecular imaging of tumour extracellular pH in a 3D organotypic in vitro model for liver cancer
I. Schobert; C. Haml; L. Adam; J. Chapiron; J. Duncan; F. Hyder; D. Coman; L. J. Savic; 1 Berlin/DE; 1 New Haven, CT, US

RPS 1816-12 11:36
A prospective study of 18F-FDG-PET/CT with integrated diagnostic multi-phasic contrast CT in the initial staging of hepatocellular carcinoma: the impact on staging systems
H. Abdelhalim; M. Houseni; M. Elsakhawy; N. Abd Elbary; O. Elabd; 1 Shibin El Kom/EG, 1 Shebein El Kom/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. Pecorilli; D. Ippolito; C. Maino; G. Querques; C. Talei Franzesi; S. Sironi; 1 Monza/IT, 1 Bergamo/IT

RPS 1816-14 11:48
Virtual monoenergetic images from spectral detector CT (SDCT) facilitates washout assessment in arterially hyper-enhancing liver lesions

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. Puglia; 1 M. A. Balli; S. Picchia; M. Orton; S. Doran; T. Feiwieier; D.-M. Kohl; M. Morana; 1 Pozzouli/IT; 1 Brussels/BE, 1 Latina/IT, 1 London/UK, 1 Sutton/UK, 1 Erlangen/DE, 1 Treviso/IT
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 under-sampling 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 imaging: the stratification of the risk of cerebral stroke
W. Y. Ussov1, A. Maksimova1, V. E. Sinitsyn1, S. P. Yanoshevsky1, E. E. Bobrikova1, O. Belichenko2; Tyumen/ RU, 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 Thorner syndrome (MTS): a correlation with the degree of iliac vein compression
D. M. D. Araújo1, M. D. P. Estrela1, M. M. Filisbino1, A. Skaf1, S. D. T. O. Cantoni1, F. H. C. Souza1, L. E. C. Paiva1, H. Leao Filho1; São Paulo/ BR, 1Barretos/ BR

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. Gershatsk; Skopje/ MK

RPS 1805-1 10:40
Automatic scan range delimitation in CT topogram images of the chest using deep learning
K. S. Moog; 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. Roux2, V. Barrau3, H. Pasquier4, C. Legoff5, M. Milliner6, J.-L. Sablayrolles7; 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. Murphy4, B. Glocker5; 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

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. Bivij2, 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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COORDINATION
European Society of Radiology
ESR Office, Am Gestade 1, 1010 Vienna, Austria
Phone: (+43 1) 533 40 64-0
E-mail: communications@myESR.org
www.myESR.org
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ECR 2021

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