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¡Bienvenidos a Viena!
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<td>17:45 – 19:15</td>
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**April 10**

- **16:00 – 17:30**
  - State of the Art Symposium
  - SA 15
  - Special Focus Sessions
  - SF 15a, SF 15b
  - Categorical Courses
  - CC 1518, CC 1519, CC 1525
  - Refresher Courses
  - E³ Session
  - Update Your Skills (Practical Course) (1500)
  - Rising Stars Student Workshop

- **14:00 – 15:30**
  - State of the Art Symposium
  - SA 15
  - Special Focus Sessions
  - SF 15a, SF 15b
  - Categorical Courses
  - CC 1518, CC 1519, CC 1525
  - Refresher Courses
  - E³ Session
  - Update Your Skills (Practical Course) (1500)
  - Rising Stars Student Workshop

- **14:00 – 15:30**
  - New Horizons Session
  - NH 14
  - Special Focus Sessions
  - SF 14a, SF 14b, SF 14c
  - Categorical Courses
  - CC 1418, CC 1419, CC 1421
  - Refresher Courses
  - E³ Session
  - Update Your Skills (Practical Course) (1400)
  - Rising Stars
  - Student Session
25th European Congress of Radiology

Sessions in Joint Sponsorship with

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<td>European Federation of Organisations for Medical Physics</td>
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<td>EFRS</td>
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<td>European Society of Cardiac Radiology</td>
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<td>ISRRT</td>
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Congress Venue

Austria Center Vienna
Bruno Kreisky Platz 1
1220 Vienna, Austria

Congress Language

English

Onsite Opening Hours

Registration
Wednesday, March 6  12:00–18:00
Thursday, March 7 to Monday, March 11  07:00–18:00

Preview Centre – EDIPS ECR’s Digital Preview System
Wednesday, March 6  12:00–18:00
Thursday, March 7 to Monday, March 11  07:00–18:00

EPOSTM – Scientific Exhibition
Thursday, March 7 to Monday, March 11  08:00–18:00

Technical Exhibition
EXPO Halls and EXPO Foyer D
Friday, March 8 to Sunday, March 10  10:00–18:00
Monday, March 11  10:00–14:00

First Level (Gallery)
Thursday, March 7  14:00–18:00
Friday, March 8 to Monday, March 11  10:00–18:00

Travel Service
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As president of the European Society of Radiology (ESR), it gives me enormous pleasure to welcome you to our society’s scientific meeting, the European Congress of Radiology (ECR). I would like to extend a special welcome to the numerous young radiologists joining us in Vienna, especially those visiting for the first time and those who are attending thanks to the support of the Invest in the Youth programme.

This event is the culmination of almost two years of intense planning and hard work, by people who have brought many years of valuable experience to the process. I would like to extend not only my congratulations, but my heartfelt thanks, to Prof. Bilbao and to all the members of the planning committees, for assembling a truly exemplary scientific and educational programme, as well as to the talented and dedicated ESR staff who have been involved in putting these plans into action.

I wrote in the ECR 2013 Preliminary Programme that everyone involved in the organisation of our annual meeting was delighted and very proud that abstract submission rose again this year. The response to the call for paper abstracts in the summer was extremely encouraging, and the continuation of that response via the EPOS submission system has demonstrated that the radiological community continues to hold our congress in high regard.

Speaking of community, being involved in so many different projects in so many different areas of interest over the past year has also brought me into contact with a vast number of committed and hard-working people, who are a great source of encouragement for the future of our discipline. I would like to thank everyone who has contributed to driving our society forward over the last twelve months. Sadly, one year is far too short to achieve everything we set out to accomplish, but I am satisfied that I can look back on an exciting and very productive period.

The ESR’s main activities this year have focused very much on international relations, especially on a political level. We have established an office in Brussels so that we can take a proactive approach to making our collective voice heard in the European Commission on topics that affect our profession. The biggest issue on the agenda in this respect is the ongoing debate regarding the EMF Directive. At the time of writing, we are optimistic that we will hear positive news on this matter by the time we meet at the ECR.

We are also intensifying relations with associate institutional members and other societies outside of Europe. We have organised an international summit for representatives of non-European partners, which we hope will help us gain a better understanding of how we can and should work together in the future. We are also bringing our institutional member societies closer to the fold, by having each one represented at ESR committee level by its president.

I was delighted with the involvement of so many groups from all over the world in the first International Day of Radiology (IDoR), which took place on November 8. Prompted by the success of the European Day of Radiology in 2011, IDoR 2012 was introduced to provide the first truly global celebration of radiology. We were very pleased to see so many radiologists joining us in marking the day and helping to promote our profession. We are also extremely grateful to both the Radiological Society of North America and the American College of Radiology for their joint role in bringing this event to life.

Our efforts to strengthen relations with the many radiological and partner societies throughout the world will continue at ECR 2013, in the form of the ‘ESR Meets’ programme. This year, along with Prof. Bilbao’s home country, Spain, we will have the pleasure of welcoming the national radiological societies of both Chile and South Africa, as well as this year’s partner society, the truly multidiscipli-
The content of the EDIR examination is based on the ESR’s *European Training Curriculum*, and we are currently in the final stages of updating the curriculum to make it both more comprehensive and easier to understand. The new version will describe not only knowledge, but also the skills, competences and attitudes required for each subspecialty at each level of training. One particularly important change is that the key stages will be given new, simpler names, to avoid any confusion with previous editions of the curriculum. The first three years of common trunk radiological training will be referred to as ‘Level 1’ and the final two years of subspecialty interest training will be ‘Level 2’. The final document should be completed by the time we meet in Vienna.

Last, but by no means least, the ESR’s publications have continued to provide an exceptionally high level of quality this year. *European Radiology* has enjoyed an extremely successful six-year period under the editorship of Adrian Dixon, and will soon enter a new phase under a new editor-in-chief, who will be formally announced at the ECR.

With all of these activities and developments in mind, I am very much looking forward to seeing what the next twelve months will bring for the ESR, for our members, and for the world of radiology in general. But first, I am relishing the chance to make the most of the many and varied opportunities offered by our annual congress and the wonderful city of Vienna. I sincerely hope each and every one of you will enjoy this event to the very fullest.

Gabriel P. Krestin
ESR President
Welcome

It is a great pleasure and a privilege to welcome you to Vienna for the European Congress of Radiology (ECR), the annual meeting of the world’s largest radiological society. The ECR has become one of the most keenly anticipated medical conferences over the last two decades, not only as a place to come and learn about the scientific, medical and professional issues of the day, but to meet our colleagues from throughout the world of imaging, to exchange opinions, experience, and knowledge, and to enjoy the inimitable atmosphere of the ECR and its home city, Vienna.

I would especially like to address this welcome to our younger attendees, who have been appearing at our congress in increasing numbers in recent years. It is enormously encouraging to see that new generations are not only developing an interest in radiology and radiography, but that they are committed enough to make the trip to Vienna for what may well be the most inspiring experience of their early careers. I am also personally delighted that we, as a society, are able to make this trip a reality for several thousand young people by providing support through the Invest in the Youth programme. Thanks to this very valuable initiative, as well as free registration for all students, I am looking forward to seeing many budding radiologists and radiographers at the Austria Center this year.

Each ECR is different from the last; each has its own unique character and there are always innovations that make each congress stand out from its predecessors. But just as important as these differences are those factors that always remain: the vision and talent that we find within our community and the enduring appeal of radiological science. This is what makes the quality of our scientific and educational programme so exceptionally high, bringing thousands of visitors, who are committed to radiology and self-improvement, from all over the world to Vienna each year. On this note, I would like to offer my sincerest thanks to every member of the Programme Planning Committee for their fantastic work in assembling this programme and to the extremely capable team at the ESR Office for all their support. I am honoured to have played a part in the creation and organisation of this congress, and I hope that every one of you will gain just as much pleasure from attending as I will from seeing the carefully laid plans and hard work of so many people come to fruition.

This year’s programme offers many sessions, in many different formats, with the aim of educating and entertaining at the same time. As usual, some of the most successful and popular sessions will be repeated from previous congresses, but plenty of others will be new. The congress is constantly evolving, and the Programme Planning Committee and ESR Office strive tirelessly to stay ahead of the educational needs and demands of radiologists and radiographers.

Categorical Courses are the heart of our programme, offering the deepest exploration of any topics at the congress. At ECR 2013 there will be three of these courses: ‘Never without Arteries’ will be this year’s contribution to the recently initiated ‘Clinical Lessons for Imaging Core Knowledge – CLICK’ series; ‘Oncologic Imaging: Follow-up of Systemic and Local Therapies’ will summarise the most recent information about how responses to therapy should be evaluated in most oncologic situations; and ‘Urogenital Imaging’ will be a continuation of the ECR 2012 session, covering the latest topics.

The programme is always prepared with a strong emphasis on interaction, since the exchange of ideas is a major way to teach and learn. This year the successful ‘E’ – European Excellence in Education will include fourteen 90-minute sessions, which will cover all the major aspects of radiology, with attractive titles such as ‘tips and tricks’ and ‘pitfalls’. The Foundation Course will deal with neuroimaging and, as in previous years, will be followed by a self-assessment test. There will also be two practical courses on how to ‘Update your Skills’, which will...
provide interactive demonstrations and opportunities for hands-on experience on ‘How to biopsy’ and ‘How to ablate’.

Like interaction, multidisciplinarity has become one of those words that appear in every conversation about the ECR. This principle is an increasingly important influence on our work and so it is only natural that we try to reflect this at our congress. The ECR 2013 programme includes three Multidisciplinary Sessions that will show how experts from different disciplines within the same institution, interact and decide on the best way to approach specific clinical situations. In addition, it is my pleasure to welcome the European-African Hepato-Pancreato-Biliary Association (E-AHPBA), a truly multidisciplinary organisation, to the ECR. They will join us as the partner discipline in the ‘ESR Meets’ programme, and I am personally looking forward to strengthening our relationship with this association, from whom I believe we will learn a great deal, in terms of both science and professional cooperation.

Once again, the ESR has invited three countries to share their expertise through the ‘ESR Meets’ programme. Chile, South Africa, and Spain will present their most recent scientific developments in joint sessions and bring some international flavour to the entrance hall. For the first time, we will have a new session entitled ‘EFRS meets’, hosted by the European Federation of Radiographers Societies, reflecting the fact that the EFRS recently chose the ECR to be their official annual meeting. They have chosen to invite Spain as their first guest, and I am pleased to report that a great many Spanish radiographers have chosen to make their way to Vienna for this occasion. We are of course delighted to offer the EFRS this platform and we look forward to building even closer relations between our societies and our professions.

As well as these few highlights I have mentioned, you will have the opportunity to attend Refresher Courses, Mini Courses, and State-of-the-Art Symposia; learn more about the most recent developments in New Horizons Sessions; look into a wide variety of topics in Special Focus Sessions; and hear about how to tackle some of our greatest issues in Professional Challenges Session. You will also have the chance to explore a technical exhibition of more than 26,000m² in size, and discover the latest products and imaging-related services from around 300 exhibiting companies from all over the world. And if this is not enough stimulation for you, we are lucky enough to be based in one of the most amazing cities in the world, boasting so much in the way of art, culture, cuisine and entertainment that is hard to know where to begin.

Exactly how to arrange your schedule at the ECR is often the biggest problem, but however you divide your time, you can always be certain that it will be well spent. I look forward to sharing the experience with you and wish you all a wonderful congress.

José Ignacio Bilbao
ECR 2013 Congress President
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**Categorical Courses**

**CLICK (Clinical Lessons for Imaging Core Knowledge): Never without Arteries**
C. Loewe; Vienna/AT

**Oncologic Imaging: Follow-up of Systemic and Local Therapies**
T. de Baère; Villejuif/FR

**Urogenital Imaging**
L.E. Derchi; Genoa/IT

**Mini Courses**

**Organs from A to Z: Heart**
K. Nikolaou; Munich/DE

**Controversies in Breast Imaging**
F. Sardanelli; Milan/IT

**The Beauty of Basic Knowledge: Head and Neck**
A. Borges; Lisbon/PT

**The Beauty of Basic Knowledge: Musculoskeletal Imaging**
K. Wörtl; Munich/DE

**Joint Course of ESR and RSNA (Radiological Society of North America): Essentials in oncologic imaging: what radiologists need to know**
R.L. Baron; Chicago, IL/US
C.J. Herold; Vienna/AT
H. Hricak; New York, NY/US
Y. Menu; Paris/FR
D.M. Panicek; New York, NY/US
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**Multidisciplinary Sessions**

**Managing Patients with Cancer**
J.I. Bilbao; Pamplona/ES
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B. Sangro; Pamplona/ES
V. Vilgrain; Clichy/FR

**E³ – European Excellence in Education**

**Foundation Course: Neuroimaging**
M.I. Argyropoulou; Ioannina/GR

**Interactive Teaching Sessions**
J. Vilar; Valencia/ES

**Update Your Skills (Practical Courses)**

**How to Biopsy with US Guidance**
G. Mostbeck; Vienna/AT

**Image-Guided Tumour Ablation: How to do it**
D.J. Breen; Southampton/UK
M.H. Fuchsjaeger; Graz/AT

**6th Post-Processing Face-Off Session**
A. Graser; Munich/DE
Dignitaries

20  Honorary Member George Simpson Bisset III
22  Honorary Member Tarek A. El-Diasty
24  Honorary Member Gary Glazer†
26  Gold Medallist José Cáceres
28  Gold Medallist Johannes Lammer
30  Gold Medallist Maximilian F. Reiser
32  Opening Lecturer Jesús Prieto
34  Honorary Lecturer Carlo Catalano
36  Honorary Lecturer Jean-François "Jeff" Geschwind
38  Honorary Lecturer Luis Martí-Bonmatí
In recognition of his groundbreaking work in the field of diagnostic radiology and his dedication to educating the next generation of radiologists, Professor George Simpson Bisset III will be awarded Honorary Membership of the European Society of Radiology at ECR 2013.
George Simpson Bisset III serves as chief of paediatric radiology at Texas Children’s Hospital and Edward B. Singleton Professor of Radiology at Baylor College of Medicine.

Prof. Bisset began his studies at the University of Tennessee, before returning to his native Florida, where he received his medical degree from the University of South Florida in 1975. He then went on to complete his residency in paediatrics at the Children’s Hospital Medical Center, Cincinnati, Ohio, where he later carried out a fellowship in cardiology, a residency in radiology, and a fellowship in paediatric radiology. Before taking up his current post, Prof. Bisset had already built up a great deal of experience during his career, having not only worked as a radiologist in a number of hospitals, but also as a consultant cardiologist.

As a result of his work in paediatric cardiology and radiology, Prof. Bisset has received a number of honours during his career. At the International Pediatric Radiology Congress in 2001, his manuscript received the John A. Caffey Award. He has also been appointed a Fellow of the American College of Radiology, an Honorary Member of the American Association of Physicists in Medicine, and an honorary member of both German and Austrian national radiological societies.

During his career, Prof. Bisset has shown a great deal of dedication to research and the development of his discipline. With a total of 125 articles published in peer-reviewed journals and more than 20 book chapters, he has written and researched extensively on the subjects of paediatrics, cardiology and radiology.

Prof. Bisset is an active member of many radiological societies, including the American College of Radiologists and the Society for Pediatric Radiology. He is a long-time member of the Radiological Society of North America and is the immediate past president of the society. In 2012, as RSNA President, he strengthened the society’s focus on patient care, choosing ‘patients first’ as the theme of the society’s most recent congress.
In recognition of achievements throughout his career, his outstanding contributions to the development of radiology in Egypt and his dedication to fostering international cooperation, Professor Tarek El-Diasty will be awarded Honorary Membership of the European Society of Radiology at ECR 2013.
Tarek El-Diasty is professor of radiology and chairman of the radiology department at the Urology and Nephrology Centre, Mansoura University, Egypt.

Born in Egypt in 1955, Prof. El-Diasty received his medical degree from the Medical Faculty of Mansoura University, Egypt, in 1979. He then completed his internship and residency periods at the same institution, receiving his master’s degree in 1986 and doctorate in 1990. Throughout his long and distinguished career, he has focused on improving urological care in Egypt and he has dedicated much of his time and effort to establishing Egypt’s first uroradiology department.

An ardent supporter of international cooperation and exchange, Prof. El-Diasty has worked hard to build closer ties between the Egyptian Society of Radiology and other radiological societies around the world. As an ambassador for Egyptian radiology, he has helped to build bridges with the European Society of Radiology and the Radiological Society of North America, to name but a few of the societies he has established links with.

In addition to his clinical work, Prof. El-Diasty has also published extensively, with more than 100 peer-reviewed papers and six book chapters to his name. He has also delivered 55 invited lectures and served as chairman of the European Society of Urogenital Radiology (ESUR) Symposium, which took place in Cairo in 2006. He has actively participated in every European Congress of Radiology since 1995, as well as every ESUR meeting since 1992.

A dedicated teacher, Prof. El-Diasty has, to date, supervised more than 50 postgraduate medical students in the field of radiology during his time at Mansoura University.
In recognition of his major contributions to the improvement of oncologic imaging as well as his years of work to create one of the world’s foremost imaging centres, the late Professor Gary Glazer will be awarded Honorary Membership of the European Society of Radiology at ECR 2013.
Gary Glazer served as chairman of the department of radiology at the Stanford University School of Medicine, California, for more than 20 years. He was also the Emma Pfeiffer Merner Professor of the Medical Sciences at the same institution. On October 16, 2011, Glazer passed away, at the age of 61, after a long fight with prostate cancer.

Born in Cleveland, Ohio, in 1950, Prof. Glazer was born into a family of healthcare professionals, his father being a paediatric radiologist and founding member of the Society of Paediatric Radiology, while his mother worked as a nurse.

At the University of Michigan, Prof. Glazer studied cellular biology before moving on to receive his medical degree from Case Western University. He carried out his internship, residency and fellowship training in radiology at the University of California, San Francisco (UCSF). He worked for a short time at UCSF before he returned to the University of Michigan to work as an assistant professor. Six years later he was full professor of radiology and serving as director of magnetic resonance imaging.

In 1989, Prof. Glazer became chair of the department of radiology at the Stanford University School of Medicine, and under his chairmanship the department underwent a number of major expansions and improvements, making it one of the most sophisticated imaging centres in the world. He worked to introduce a more patient-centred approach to his department, as he sought to increase the radiologist’s interaction with patients.

Over the course of his long and distinguished career, Prof. Glazer carried out a great deal of important and influential research. His work in the fields of computed tomography and magnetic resonance imaging led to the development of standards for distinguishing liver and adrenal tumours and staging tumours in lung cancer. These standards remain vital to treatment and are still used routinely today. He also published more than 150 peer-reviewed articles, three books and served as consultant editor for a range of highly reputable scientific journals including the *New England Journal of Medicine* and *Radiology*.

During his career, Prof. Glazer received widespread recognition for his work, which is evidenced by the many awards and honours he received, including Gold Medals from both the Radiological Society of North America and the Association of University Radiologists. He was also an Honorary Member of the French, German and Japanese national radiological societies and served as president of the International Society for Strategic Studies in Radiology from 2003 to 2005.

Gary Glazer is survived by his wife Diane and two sons Daniel and David.
In recognition of his many years of dedication to radiological education and training, as well as his tireless efforts to promote the discipline of radiology in Europe and around the world, Professor José Cáceres will be awarded the Gold Medal of the European Society of Radiology at ECR 2013.

José Cáceres
Barcelona/ES
Gold Medallist
José Cáceres is a professor and former head of diagnostic radiology at H.G.U. Vall d’Hebron Universidad Autonoma, Barcelona, Spain. He is also a long-standing member of the ESR and is well-known for his series on the ESR blog, ‘Cáceres’ Corner,’ in which he and his puppet colleague challenge radiologists to solve specific cases and take away some important lessons.

Prof. Cáceres was born in Seville, Spain in 1940. He studied medicine at the University of Seville from 1957 to 1964, before moving to the United States in 1965. In the US, he completed an internship at Cook County Hospital in Chicago and later served his residency at the University of Cincinnati from 1966 to 1969, followed by a one-year fellowship in diagnostic radiology. He went on to serve as assistant professor of radiology at the University of Kentucky before returning to Spain in 1971.

Back in his home country, Prof. Cáceres built up a wealth of clinical and academic experience. He served as head of department and professor in a number of institutions in Madrid, Valladolid and Barcelona. In 1996, he took up the posts of professor of radiology and head of diagnostic radiology at the H.G.U. Vall d’Hebron Autonomous University of Barcelona, where he served until his retirement in 2010.

A valued and distinguished member of the international radiological community, Prof. Cáceres is a member of a number of scientific societies including, the Radiological Society of North America, the Spanish Society of Radiology, the Spanish Society of Thoracic Imaging (SEIT) and the European Society of Thoracic Imaging (ESTI). He has served as president of both ESTI and the SEIT, and at ECR 2011 he delivered the Josef Lissner Honorary Lecture.

Over the course of his career, Prof. Cáceres has published extensively and has 87 peer-reviewed articles, 12 book chapters and a book to his name. He has also served as chest section editor for the European Journal of Radiology and editor-in-chief of the Spanish radiological publication, Radiología.
In recognition of his scientific achievements and his dedication to international exchange and cooperation in the field of radiology, Professor Johannes Lammer will be awarded the Gold Medal of the European Society of Radiology at ECR 2013.
Johannes Lammer is vice-chairman of the department of radiology and director of cardiovascular and interventional radiology at the Medical University of Vienna, Austria.

Born in Vienna, Prof. Lammer studied at the University of Vienna Medical School, where he graduated in 1975, before moving on to work as an intern at hospitals in Bregenz and Feldkirch. He then went to Graz, to complete his residency in radiology at Karl Franzens University. In 1982, he travelled to the United States, where he held visiting fellowships at the department of radiology, University of Pennsylvania, Philadelphia, the MD Anderson Hospital and Tumor Institute at the University of Texas in Houston, and the department of radiology at the University of California in San Francisco. In 1984, he took up the post of associate professor of radiology at Karl Franzens University, Graz. In 1990, he became head of the department of angiography and interventional radiology at the University of Vienna.

On top of this impressive academic and clinical career, Prof. Lammer has also been very active in the field of international scientific collaboration and exchange. From 1996 to 1997, he served as president of the International Society of Hepato-Biliary-Pancreatic Radiology, followed by presidency of the Austrian Society of Angiology, from 1999 to 2000. A long-standing, active and highly valued member of the Cardiovascular and Interventional Radiological Society of Europe, he has served as its treasurer, secretary and president, which exemplifies his dedication to promoting international cooperation within the field of interventional radiology.

As an author, Prof. Lammer has published more than 300 articles in peer-reviewed journals such as Radiology, Circulation, The Lancet and the New England Journal of Medicine. He has also written a number of abstracts and book chapters, as well as a book, Praxis der Interventionellen Radiologie (The Practice of Interventional Radiology). His research interests include CT and MR angiography of coronary and peripheral arteries, IR treatment of peripheral vascular and aortic diseases, as well as HCC and liver metastases.

As a result of his work, Prof. Lammer has received a number of awards and honours throughout his career, including honorary membership of the Austrian Society of Radiology, the Austrian Society of Interventional Radiology, the Hungarian Society of Interventional Radiology and the Turkish Society of Radiology. He has also received Honorary Fellowship of the British Society of Interventional Radiology and the Gold Medal of the Cardiovascular and Interventional Radiological Society of Europe.
In recognition of years of groundbreaking work in clinical radiology and his devotion to fostering cooperation on a European and international level, Professor Maximilian Reiser will be awarded the Gold Medal of the European Society of Radiology at ECR 2013.
Maximilian F. Reiser is professor of radiology, chairman of the department of clinical radiology, and dean of medicine at Ludwig Maximilians University of Munich.

In 1973, Prof. Reiser received his medical degree from the Ludwig Maximilians University of Munich, the same institution he now heads. He then completed his residency at the diagnostic radiology department of the Technical University of Munich in 1983. He later served as an assistant professor at the same institute, before moving on to become an associate professor at the University of Münster in 1986. He then went on to take up the post of professor and chairman of radiology at the University of Bonn in 1989, where he worked until he returned to his alma mater in 1993. He has served as professor and chairman of Ludwig Maximilians University’s department of radiology since 1993, and in 2008 he was appointed dean of medicine.

A well-known figure within the international radiological community, Prof. Reiser has taken an active interest in promoting and furthering the interests of his discipline. A long-time and active member of the European Society of Radiology, he served as president of the Society’s congress in 2008, and went on to serve as president of the society in 2010–2011. He has also served as president of the German Radiological Society, the European Society of Musculoskeletal Radiology and the joint congress of the German Radiological Society and Austrian Radiological Society in 2001.

With more than 500 original publications to his name, Prof. Reiser has authored extensively throughout his distinguished clinical and academic career. His main research interests include skeletal radiology, magnetic resonance imaging, abdominal and cardiac imaging, as well as oncologic interventions. Among the many awards he has received throughout his career are Honorary Fellowship of the Royal College of Radiologists and the American College of Radiology. He was also awarded the Holthusen Ring Award of the German Radiological Society. Prof. Reiser is also an honorary member of many national radiological societies, including those of Austria, France, Switzerland, Korea, Greece, Japan, India and Iran, as well as being an honorary member of the Radiological Society of North America. He has also received honorary membership of the Leopoldina, the German National Academy of Science, as well as an honorary doctorate from the veterinary faculty of Ludwig Maximilians University and Tiflis State University. He was also made Foreign Associate of the National Academy of Science (USA) Institute of Medicine (IOM).
In recognition of his expertise and groundbreaking work in the field of primary biliary cirrhosis and gene therapy of liver diseases, the European Society of Radiology has invited Professor Jesús Prieto to deliver the Opening Lecture, entitled ‘Promises and facts of liver-directed gene therapy’, at ECR 2013.
Jesús Prieto is professor of medicine and director of the department of hepatology and gene therapy at the Centre for Applied Medical Research at the University of Navarra, Spain. He also serves as a consultant internist at the University of Navarra Clinic.

An expert in the field of hepatology, Prof. Prieto is considered to be a pioneer of gene therapy in Europe. His research has focused mainly on understanding the underlying mechanisms of liver disease and on the development of new therapies for acute and chronic liver damage. He is credited with contributing to the unravelling of the pathogenesis of primary biliary cirrhosis, where he showed that a defect in bicarbonate transport induces both bile duct injury and immune dysfunction.

Through his research, Prof. Prieto has analysed the role of IGF-I deficiency in the progression of liver cirrhosis and has produced clinical and experimental data to show that IGF-I replacement therapy can induce regression of liver fibrosis and a reduction of portal pressure, along with a significant improvement in liver function. In addition, he has identified cardiotrophin-1 as a molecule with potent hepatoprotective properties, making it a natural defence against apoptosis and a potential therapy for patients with acute, severe liver damage.

A member of many national and international societies dedicated to the study of the liver, Prof. Prieto has served as president of the Spanish Association for the Study of the Liver and on the Scientific Committee of the European Association for the Study of the Liver. He was made Doctor Honoris Causa by the University of Porto (Portugal) and the University Austral of Buenos Aires (Argentina).

Prof. Prieto has authored more than 300 articles, which have appeared in many prestigious peer-reviewed journals such as the New England Journal of Medicine, Journal of Experimental Medicine, Journal of Clinical Investigation, Cell Metabolism, PNAS, Gastroenterology, Journal of Clinical Oncology and many others.
In recognition of his research and work in the areas of cardiovascular imaging and interventional radiology, Professor Carlo Catalano has been invited to present the Josef Lissner Honorary Lecture, entitled ‘MR-guided focused ultrasound: a new string to the radiologist’s bow’, at ECR 2013.
Carlo Catalano is professor of radiology and head of the department of diagnostic radiology at La Sapienza University of Rome Hospital.

Born in Rome in 1965, Prof. Catalano received his medical degree from La Sapienza University of Rome in 1990 before completing his residency at the University of L’Aquila in 1994. Up until 1999, he worked as a staff radiologist in the department of radiology and the department of emergency radiology at La Sapienza University of Rome. During this time he focused mainly on CT and MR body imaging along with cardiovascular imaging and interventional procedures. In 1999, he became assistant professor of radiology at La Sapienza, as well as assistant professor at the Campus Bio-Medico University, Rome.

Throughout his career, Prof. Catalano has dedicated much of his time to research and education. He became full professor of radiology at La Sapienza University of Rome in 2010, after eight years of teaching and research as associate professor. He serves as the Italian delegate to the European Society of Radiology’s Education Committee and has served as a member of the European School of Radiology’s faculty for its Teach-the-Teachers programme in Italy, which reflects his experience and passion for the field of radiological education and training.

Prof. Catalano has been an active member of the ESR since the beginning of his career, participating as a panellist and as an organiser for the Junior Film Reading Session at ECR 1999. Furthermore, during his career he has shown great dedication to developing relations with less developed countries, with the aim of sharing radiological knowledge.

A prolific author and researcher, Prof. Catalano has authored more than 170 scientific papers, six books and upwards of 50 book chapters. On top of this, he has delivered more than 150 invited lectures at national and international conferences.
In recognition of his work in cancer research and his efforts to further the development of oncologic imaging and interventional oncology, Professor Jean-François Geschwind has been invited by the European Society of Radiology to deliver the Wilhelm Conrad Röntgen Honorary Lecture, entitled ‘Interventional oncology: the era of molecular targeted therapy’ at ECR 2013.

Jean-François ‘Jeff’ Geschwind
Baltimore, MD/US
Honorary Lecturer
Jean-François Geschwind is professor of radiology, surgery, and oncology, and director of the division of vascular and interventional radiology at the Johns Hopkins University School of Medicine in Baltimore, Maryland/US. He is also director of the Interventional Radiology Center and chief of interventional radiology research at the Johns Hopkins Hospital.

Originally from France, Prof. Geschwind began his early medical training at the University of Paris School of Medicine and subsequently moved to the United States, where he studied at the University of Pennsylvania and then completed his medical degree at Boston University School of Medicine in Massachusetts. He completed his residency training in diagnostic radiology as a research scholar (sponsored by the National Institutes of Health) at the University of California, San Francisco in 1996. He went on to complete his two-year training in vascular and interventional radiology at the Johns Hopkins University School of Medicine, before joining the faculty there as an assistant professor. In 2002, he was appointed director of the division of vascular and interventional radiology and the Interventional Radiology Center at Johns Hopkins Hospital, and in 2007 he was promoted to professor of radiology, surgery and oncology at the Johns Hopkins University School of Medicine.

A leading figure in the field of liver cancer, Prof. Geschwind has focused most of his research on hepatic cancer. He has received numerous grants from foundations, industry and the federal government for his research in the field.

Prof. Geschwind has authored or co-authored more than 350 scientific articles and abstracts on interventional radiology and, more specifically, the treatment of liver cancer. As lead or co-investigator on more than 40 clinical trials, Prof. Geschwind’s research has been published in highly rated peer-reviewed journals, including the *Journal of Clinical Oncology*, *Clinical Cancer Research*, *Radiology*, *European Radiology*, *Gastroenterology* and *Annals of Surgery*. He has also won numerous national and international awards in recognition of his research accomplishments. In addition to having co-authored the first book dedicated to interventional radiology, entitled *Interventional Oncology: Principles and Practice*, Prof. Geschwind is currently co-editing the book, *Abrams Angiography: Interventional Radiology* with Dr. Michael Dake.

A prolific speaker and lecturer, both nationally and internationally, Prof. Geschwind has delivered over 200 keynote speeches at scientific assemblies, annual meetings and symposia. He has also served as visiting professor at many prestigious institutions throughout the world.
In recognition of his dedication to scientific research and development, Professor Luis Martí-Bonmatí has been invited by the European Society of Radiology to present the Santiago Ramón y Cajal Honorary Lecture, ‘Research and science: from individuals to societies – the Ramón y Cajal background,’ at ECR 2013.

Luis Martí-Bonmatí
Valencia/ES
Honorary Lecturer
Luis Martí-Bonmatí is director of medical imaging at La Fe University and Polytechnic University Hospital, and chief of radiology at Quirón Hospital, Valencia, Spain. He is also professor of radiology at Valencia University.

After completing his undergraduate medical training at the University of Valencia in 1983, Prof. Martí-Bonmati worked as a resident at La Fe University Hospital Valencia until 1987. He then began work on his Ph.D. thesis, ‘MRI in the study and characterisation of focal liver lesions’, which earned him a doctorate with excellence from the University of Valencia in 1990.

As a researcher, Prof. Martí-Bonmati’s interests lie mainly in the fields of liver MR and CT, abdominal and pelvic MRI, contrast agents, image processing, and imaging biomarkers. With more than 200 articles listed in PubMed and 55 book chapters to his name, he is an established scientific author. As an editor he has contributed to eight books. He has also supervised twenty-two Ph.D. students, and has delivered hundreds of presentations at scientific meetings, symposia, and international conferences.

On top of his work as a clinician and academic, Prof. Martí-Bonmati has also been engaged in strengthening international ties within the field of radiology. He is an active member of many European scientific societies and has served as president of the Spanish Society of Radiology, the European Society for Magnetic Resonance in Medicine and Biology and the Spanish Society of Abdominal Imaging. In addition to these presidencies, he has served as vice-president of the European Society of Gastrointestinal and Abdominal Radiology.

He is a long-time member of the European Society of Radiology and currently serves as chairman of the society’s Research Committee.
The IPP offers a great, convenient way to **explore the whole ECR programme online and create a custom timetable**. You can search or browse for sessions and posters, read full abstracts, create a personal calendar, and even print your own personalised Book of Abstracts. It's also optimised for mobile devices, meaning you can keep every detail that's important to you exactly where you need it – right in your hand.

**Plan your own personalised congress and you’ll never lose track again ...**

[ipp.myESR.org](http://ipp.myESR.org)
Arts & Culture
Delegates are encouraged to visit the Arts & Culture Desk in the entrance hall for information on Vienna’s cultural events such as exclusive opera performances, delightful concerts, and the fascinating exhibitions in Vienna’s most important and remarkable museums. Pick up your personal Arts & Culture Brochure at this counter to find descriptions of all cultural places.

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. Please note that in order to obtain CME credits, it is mandatory to affix your Personal ID stickers to the evaluation forms available in each scientific session, and to drop these into the dedicated boxes.

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 – ‘Insights into Imaging (Supplement 1 to Volume 4)’
Professional delegates will find a complimentary copy in their congress bag. Please note that in accordance with the ESR members’ wishes, the print version of the Book of Abstracts contains Scientific Sessions only. The extended version of the Book of Abstracts, including the Postgraduate Educational Programme and Satellite Symposia can be accessed at www.i3-journal.org/articles. You can also create your own personal Book of Abstracts with the help of the popular ECR Interactive Programme Planner (ipp.myESR.org).

Abstracts of EPOS™ presentations no longer appear in the Book of Abstracts. Each full EPOS™ presentation can instead be cited by a Digital Object Identifier (DOI), which appears with the presentation at www.myESR.org/EPOS.

Broadcast Rooms
For the second time, the ECR features specific Broadcast Rooms, where you can listen to sessions and view the corresponding presentation material in a relaxed atmosphere when the actual lecture rooms are overcrowded. Broadcast Rooms/Zones are located next to room B (2nd level), rooms L/M and N/O (1st level), rooms E1 and F2 (entrance level) and rooms G/H and I/K (lower level). See Floor Plans on pages 78–84.

Business Centre
The Press Office & Business Centre, located on the entrance level, offers copy and fax facilities for a small charge.

Opening hours:
Thursday, March 7 to Monday, March 11: 08:00–18:00

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 situated throughout the whole congress venue and on all levels of the building, offering a variety of tasty hot and cold snacks. To offer you the broadest possible variety of Austrian and international delicacies, each café and restaurant has its own theme, from Austrian specialties to Italian treats and Asian delights. See page 67.

Please see the ‘coffee-cup’ signs on the floor plans on pages 78–84 of this programme to locate the various foyer cafés.

Cases of the Day
From Thursday to Sunday, five Cases of the Day covering different sections of radiology are shown on computer stations in the EPOS™ classroom on the 2nd level. Participants are invited to submit their diagnoses. The winners will be announced on the ESR website.

We would like to acknowledge the contribution of the following authors to the Cases of the Day:

Thursday:
Case 1: R. Basilico, E. Rodolfino, L. Migliorato, V. Calamita, A.R. Ferri, A.R. Cotroneo; Italy
Case 2: P. Belli, M. Di Matteo, M. Giulian; Italy
Case 3: M.B. Damasio, F. Rizzo, C. Mattiuz, G.M. Magnano; Italy
Case 4: R. Viguer, F. Aparici, F. Mas, L. Marti-Bonmati; Spain
Case 5: M.P. García-Peña, L. Cadavid Álvarez; Spain

Friday:
Case 1: P.I. Davydenko, G.G. Karmazanovskiy; Russia
Case 2: K. Gruszczynska, P. Ulbrych, K.S. Golba, J. Biernat, J. Baron; Poland
Case 3: E. Fisci, A. Tagliabio; Italy
Case 4: G.C. Colleran, M.J. Shelly, B.D Murphy, H.M. Fenlon, E.C. Kavanagh; Ireland
Case 5: C.A. Acevedo, I. Delgado, A. Sanchez-Montanez, E. Vazquez; Spain

Saturday:
Case 1: P.L. Di Paolo, H.A. Vargas, O. Akin, H. Hricak; Italy/United States
Case 2: K.-F. Kreitner, N. Abegunewardene; Germany
Case 3: I.I. Reidsma, M. Reijnierse; Netherlands
Case 4: I.G. Luplescu, G.A. Popa, C.A. Nicolae; Romania
Case 5: S. Speca, C. Borelli, G. Soglia, L. Bonomo; Italy

Sunday:
Case 1: E. Astrinakis, N. Courcousakis, A. Karayiannakis, P.K. Prassopoulos; Greece
Case 2: M.-P. Revel, B. Fedida; France
Case 3: M.J. Shelly, G.C. Colleran, B.D. Murphy, H.M. Fenlon; Ireland
Case 4: L. Holzer-Frühwald, M. Pones, C. Kölblinger, M.M. Thurnher; Austria
Case 5: M. Teodorescu, E. Coche, B. Ghaye; Belgium
Categorical Courses
There are two new Categorical Courses, entitled ‘Oncologic Imaging: Follow-up of Systemic and Local Therapies’ and ‘CLICK (Clinical Lessons for Imaging Core Knowledge): Never without Arteries’ at ECR 2013. The Categorical Course ‘Urogenital Imaging’ is repeated from ECR 2012. The latter and the CLICK Course are interactive courses with electronic voting/self assessment. For both courses, voluntary self-assessment tests will be available after the last session is finished. Tests can be accessed online (assessment.myESR.org) as well as via the EPOS™ classroom. Places on each course are allocated on a first-come, first-served basis. Please refer to pages 109–111 for the course programmes.

Churches and Religious Communities in Vienna
Vienna is a multi-denominational, multi-cultural city. We will be pleased to provide you with information on local religious communities and places of worship at the Travel Service Desk.

CME Accreditation System
Please make sure you pick up an evaluation form, which is provided at the entrance of each room. Then affix one of your Personal ID stickers to the evaluation form and drop it into the dedicated box in front of each room. This is mandatory in order to obtain CME credits. See pages 50–51.

Coat Check
The coat check services are located on the entrance level, in Foyers E and F, as well as on the lower level next to Room D1.

Communication Areas
If you are looking for the perfect place to meet and talk with friends or just to relax and browse through ECR Today, ECR 2013 offers two areas perfectly equipped for communication and recreation; the ESR Welcome Lounge right in the middle of the entrance hall and the EPOS™ Lounge on the 2nd level of the congress venue.

Confirmation of Payment and Attendance / CME Accreditation
Congress-related confirmation will be available during and after the congress from the ESR website (www.myESR.org) via the MyUserArea (login with your last name and your Personal ID as printed on your badge). Internet access is provided at the registration terminals (from Saturday, March 9, afternoon onwards) as well as at the internet points (see floor plans) and W-LAN areas, which are available throughout the congress venue.

Congress Language
English

Congress Venue
Austria Center Vienna
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 Vienna International Centre/Kaisermühlen and take the exit marked Schüttaustraße.
Travelling time: approximately eight minutes.

‘ECR Live’
After last year’s success, the ESR is once again providing a live streaming service for ECR 2013, under the name ECR Live, in an effort to bring the ECR to everyone. The majority of ECR sessions are being broadcast live via the ESR website, with Facebook and Twitter options integrated into the web interface to provide a fully interactive experience. ECR Live is kindly supported by Siemens.

Link: live.myESR.org

ECR Today
ECR Today, the popular daily newspaper of the congress, is published from Thursday to Monday (with a special issue dedicated to the European Diploma in Radiology on Wednesday) and distributed in the entrance hall of the congress venue and in the entrance area of the Technical Exhibition.

ECR 2013 Smartphone App
The ECR 2013 App gives iPhone and Android users a new way to experience the congress. The app is packed with features, including general congress information, scientific and educational programme details, top news stories from ECR Today, full abstracts, and even floor plans of the Austria Center. You can download the app from iTunes or via the QR code to the right. The ECR 2013 App is kindly supported by Bracco.

EDIPS – ECR’s Digital Preview System
See Preview Centre.

EFOMP (European Federation of Organisations for Medical Physics) Workshop
This workshop is the 15th in the series of EFOMP Workshops on ‘New Technology in Diagnostic Radiology’. This year’s workshop focuses on ‘New frontiers in imaging of the lung’. It has been organised by EFOMP in collaboration with the ESR to address the current and future technological requirements for radiology imaging equipment (please refer to page 135).
'ESR Meets' Sessions

The purpose of 'ESR meets' is to forge closer ties between the ESR and its guest societies. The three guest nations of this year's ECR are Chile, South Africa and the Congress President's home country, Spain. There are dedicated sessions for the radiological communities of these nations to demonstrate the excellence of radiology in their countries.

In addition, ECR 2013 again features special activities focusing on a partner discipline, providing a platform to establish closer ties. This year's guest in the series will be the European-African Hepato-Pancreato-Biliary Association.

Places at these sessions are allocated on a first-come, first-served basis. Please refer to pages 52–53 for the programme of the sessions.

ESR Welcome Lounge

Visit the ESR Welcome Lounge in the entrance hall! Whether you are looking for an ideal meeting point or just want to take a short break – the ESR Welcome Lounge will suit your needs. Free wireless LAN is provided for your convenience.

Watch out for artistic performances from the 'ESR meets' countries during the lunch breaks!

European Diploma in Radiology (EDiR)

An examination for the European Diploma in Radiology is being held at ECR 2013. The electronic-based written examination takes place on Wednesday, March 6, in the EPOS™ Area on the 2nd level, whereas the case-based oral examinations take place on Thursday, March 7, and Friday, March 8, in various rooms close to the EPOS™ Area.

Success in the examination certifies a standard of radiological knowledge deemed appropriate by the ESR for independent practise in General Radiology.

Make sure you grab the special EDiR edition of ECR Today on Wednesday.

www.myESR.org/diploma

'European Radiology'

Visit the booth of the ESR's flagship journal, European Radiology, in the entrance hall.

See page 73.

EURORAD

EURORAD is the largest peer-reviewed radiological teaching database on the internet, accessible free of charge to all ESR members. Please visit the EURORAD booth in the entrance hall.

Expo Gallery

Opening hours:
Thursday, March 7: 14:00–18:00
Friday, March 8 to Monday, March 11: 10:00–18:00

Visit the additional technical exhibition area on the 1st level of the congress venue!
Interactive Teaching Sessions

Under the heading of **E³ – European Excellence in Education**, ECR 2013 presents 14 interactive teaching sessions dealing with specific topics of common radiological problems, emergencies, imaging of cancer and infections, establishing a two-way interaction between the presenters and the participants. The material is presented in an interactive way, with audience participation and self-assessment through the use of an electronic voting system (key-pads). Places are allocated on a first-come, first-served basis. Please refer to page 137 for the programme of the sessions.

Internet Points

Computer terminals with internet connections are available on the 1st level and in Extension Expo A, and can be used for various purposes. Delegates can compile their personal session itineraries using the Interactive Programme Planner, send e-mails and browse the internet.

(Junior) Image Interpretation Quiz

The Image Interpretation Quizzes are two traditional highlights of every ECR. This year’s themes are ‘Radiology is global’ and ‘Golden Eye’ (see page 59).

Liability

ESR and the Austria Center Vienna are free from all liabilities that may arise from the delegates’ and presenters’ participation in ECR 2013 and its activities.

Lost and Found

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

Meditation & Prayer Room

The Meditation & Prayer Room is located on the lower level in Foyer G/H. You will find it marked on the floor plan.

Meeting Rooms

Meeting rooms at ECR 2013 are to be found on:
- **3rd Level** Meeting Rooms 1–9
- **2nd Level** Meeting Rooms 10–13
- **1st Level** Meeting Room 14
- **Lower Level** Meeting Rooms 15–16

You will find them marked on the floor plan. Please contact the Info Service Desk on the 3rd level for access to and onsite booking of meeting rooms.

Membership

For membership application and renewal, please go to the registration desks in the entrance hall.
Plenary 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 may become routine within a few years, or may indicate a new direction for research and clinical application. There are three New Horizons Sessions, entitled ‘Cartilage imaging’, ‘MR/PET: a marriage made in heaven or hell?’ and ‘Imaging of the mind’, at ECR 2013. Session places are allocated on a first-come, first-served basis. Please refer to page 100 for the programme of the sessions.

Mini Courses

ECR 2013 features three new Mini Courses, ‘Controversies in Breast Imaging’, ‘The Beauty of Basic Knowledge: Head and Neck’ and ‘The Beauty of Basic Knowledge: Musculoskeletal Imaging’. The joint course of the ESR and RSNA ‘Essentials in Oncologic Imaging: What Radiologists Need to Know’ is repeated from last year. The ‘Organs from A to Z’ series, introduced at ECR 2010, will this year focus on the heart. The ‘Organs from A to Z’ course, the course on breast imaging and the ESR/RSNA course sessions will be interactive with electronic voting/self assessment.

Places for all courses are allocated on a first-come, first-served basis. The ‘Organs from A to Z’ course is accompanied by a voluntary self-assessment test that will be available after the last session is finished. Tests can be accessed online (assessment.myESR.org) as well as via the EPOS™ classroom. Please refer to pages 112–114 for the courses’ programmes.

MIR@ECR

After last year’s success, the ESR Subcommittee on Management in Radiology has again organised a special session at the ECR on core managerial issues and supportive methods and techniques. It takes place on Saturday, March 9, 13:00–17:30 in Room Q. See page 61.

Mobile Guide

Get the ECR on your smartphone and always stay up to date! The ECR Mobile Guide brings ECR 2013 to the palm of your hand. Find out all about sessions/lectures, abstracts, exhibitors, floor plans and places to be. Link: m.myESR.org

Multidisciplinary Sessions:
Managing Patients with Cancer

These sessions are intended to promote a multidisciplinary approach to cancer detection and treatment, by bringing together radiologists, surgeons and oncologists to share their expertise. The topics that are covered this year are: colorectal liver metastases, hepatocellular carcinoma and cholangiocarcinoma. Please refer to page 108 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 may become routine within a few years, or may indicate a new direction for research and clinical application. There are three New Horizons Sessions, entitled ‘Cartilage imaging’, ‘MR/PET: a marriage made in heaven or hell?’ and ‘Imaging of the mind’, at ECR 2013. Session places are allocated on a first-come, first-served basis. Please refer to page 100 for the programme of the sessions.

Plenary Sessions

See page 55.

Post-Processing Face-Off Session

The ‘Workstation Face-Off’ session takes place in Room B on Friday, March 8, 08:30–10:00. The aim of this session is to simulate a realistic ‘reading room’ atmosphere and to give an impression of how different workstations perform in a clinical scenario. We would like to cordially invite you to attend this exciting tournament of post-processing (see page 139).

Press

The ECR 2013 Opening Press Conference takes place on Thursday, March 7, at 09:30 at the Austria Center Vienna, Meeting Room 14 (1st level). 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.

Opening hours:
Thursday, March 7 to Monday, March 11: 08:00–18:00

Preview Centre – EDIPS

EDIPS, the ECR’s digital preview system, allows for fast and easy presenter identification through badge scanning. Large screens in the waiting area display the names of the presenters who are asked to proceed to the Check-In counter, where they can hand in their presentations. At the Preview Stations, presenters have the opportunity to do a final check on their presentations. This year, presenters were offered the option of submitting their material prior to the congress.

The Preview Centre is located on the 1st level, next to Room N/O.

Opening hours:
Wednesday, March 6: 12:00–18:00
Thursday, March 7 to Monday, March 11: 07:00–18:00

Please note that only digital material will be allowed for oral presentations.

The material must be in English and must be provided on CD-ROM, DVD, ZIP disk or USB devices so that it can be transferred to a central server onsite. It is mandatory that the data carriers are delivered to the audiovisual preview centre 2 hours prior to the session, at the latest. Computers connected to data projectors are provided in each lecture room for the speaker to retrieve the saved data.

The material remains the property of the speakers.

Professional Challenges Sessions

These sessions are intended to communicate and exchange issues on radiological training and education, research networking, radiological management and professional developments. This year’s topics are ‘Bringing radiology to medical undergraduates’, ‘The visibility of the radiologist’, ‘Personalised radiology’, ‘Legal matters related to multimodality techniques’ and ‘The radiologist, the clinician and the patient: an impossible trio?’.

Places are allocated on a first-come, first-served basis. Please refer to page 107 for the sessions’ programme.
Public Transport
Tickets for public transportation are available at the registration desks in the entrance area.

Special ECR Ticket:
6 days (valid from March 6–11): € 20.00

Underground map: see page 75.

Publishers Row (1st level) & Partner Publishers (entrance level)
Opening hours:
Thursday, March 7: 14:00–18:00
Friday, March 8 to Monday, March 11: 10:00–17:30

Browse through a wide range of scientific publications displayed by the most important publishers in the field of medicine.

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. One of the RTF’s most important goals is to provide an equal level of radiological knowledge and skills for radiology trainees all over Europe.

Highlighted Lectures organised by the RTF will be given on Sunday, March 10, 10:30–12:00 in Room Q (see page 141). The RTF General Assembly takes place on Sunday, March 10, 14:30–16:00, in Meeting Room 9 (3rd level). For more detailed information please visit the RTF Meeting Point in the Rising Stars Lounge (Foyer B, 2nd Level).

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.

Refresher Courses
75 Refresher Courses have been organised by the various scientific subcommittees for ECR 2013. Based on the topic of the session, some refresher courses are presented in an ‘integrated’ format with an organised panel discussion, similar to Special Focus Sessions.

Places are allocated on a first-come, first-served basis. Please refer to pages 115–134 for the programme of the sessions.

Registration Opening Hours
Wednesday, March 6: 12:00–18:00
Thursday, March 7: 07:00–18:00
Friday, March 8: 07:00–18:00
Saturday, March 9: 07:00–18:00
Sunday, March 10: 07:00–18:00
Monday, March 11: 07:00–18:00

Restaurant Reservations
Our staff at the Dining & Shopping 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 the 2nd level, Foyer B. In the lounge you will find information on the European School of Radiology, the European Diploma of Radiology and the Radiology Trainees Forum.

Rising Stars Programme
See pages 144–145.

Satellite Symposia
Industrial Satellite Symposia are presented by international companies. CME credits can be claimed for attendance of these symposia on condition that the relevant completed evaluation form has been received by the organisation. Places are allocated on a first-come, first-served basis. See pages 149–152 for details.

Scientific Presentation Awards
The authors of the best scientific papers and scientific/educational exhibits will be presented with a certificate and given free ECR 2014 registration.

Scientific Papers: The award will be assigned to the best paper presentation of each topic based on the evaluation by session moderators, subcommittee members and session participants. 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. Scientific/educational exhibits: See page 62 (Scientific Exhibition Awards).

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. In addition, there is a dedicated smokers’ area on the right side of the main building. Please note that smoking is prohibited in front of the main entrance.

Society Booths
Up to 50 national and international radiological societies present their meetings and societies in the society booths area, which is located on the entrance level, next to the registration desks and the coat checks.
BOOST YOUR CAREER.

TAKE THE EUROPEAN DIPLOMA IN RADIOLOGY (EDiR)

EXAM DATES:
June 6–8, 2013, Wroclaw/PL (Congress of the Polish Medical Society of Radiology)
October 18–22, 2013, Paris/FR (JFR)
October 28 – November 2, Antalya/TR (TURKRAD 2013)

www.myESR.org/diploma
**Information from A to Z**

**General Information**

**Special Assistance**
Delegates with special needs may park on the lower level with direct elevator access to the ACV. All lecture rooms are accessible by wheelchair.

**Special Exhibition**
In compliance with the ECR’s tradition of offering its delegates an ambitious supporting programme at the annual congress, the ECR is again proud to present an exhibition by Prof. Vogel from Hamburg/DE, in cooperation with the German Röntgenmuseum. This year’s exhibit is entitled *X-Rays: Evidence and Threat* and is presented on the 2nd level, next to the EPOS™ Lounge. See page 66.

**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 so as to promote debate and to give an in-depth analysis. The chairman 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. Places are allocated on a first-come, first-served basis. Please refer to pages 102–106 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 chairman. Places are allocated on a first-come, first-served basis. Please refer to page 101 for the programme of the sessions.

**Students’ Sessions**
At ECR 2013, students have the chance to present their own abstracts in front of a huge audience. The submitters of the best 20 abstracts have been invited to Vienna to present their work in dedicated sessions. See pages 144–145.

**Taxi**
There is a taxi stand outside the main entrance.

**Technical Exhibition**

**Opening hours:**
- **EXPO Halls and EXPO Foyer D**
  - Friday, March 8 to Sunday, March 10: 10:00–18:00
  - Monday, March 11: 10:00–14:00

- **First Level (Gallery)**
  - Thursday, March 7: 14:00–18:00
  - Friday, March 8 to Monday, March 11: 10:00–18:00

Detailed information on the Technical Exhibition can be found in the ‘On-Show exhibition guide – Exhibitor Directory and Product Information’, which is distributed together with the congress bags.

**Travel Service**
The ESR and ECR are proud to offer their delegates services that should facilitate their travel arrangements and make their stay in Vienna as pleasant as possible. The ESR’s **Travel Service Desk** is located on the entrance level of the Austria Center Vienna. Next to it you can find the ECR’s official travel agency Mondial.

**Opening hours:**
- Wednesday, March 6: 12:00–18:00
- Thursday, March 7 to Monday, March 11: 07:00–18:00

**Air Travel**
The Austrian Airlines desk in the entrance area offers the following services for Austrian Airlines and Star Alliance flights:

**Ticket office & Check-in services:**
- Friday, March 8 to Monday, March 11: 09:00–18:00
  - Check-in for Star Alliance flights
  - Issue of boarding passes

**At Vienna Airport**
- Check-in for Star Alliance flights with hand-baggage only; deadline: latest passengers to show up at the respective boarding gate at Vienna Airport according to boarding time shown on boarding pass
- Check-in for Star Alliance flights (except flights to Tel-Aviv and USA) with baggage; deadline: latest passenger to show up with baggage at the Baggage Drop Off Counters / Terminal 1 at Vienna Airport 45 minutes before departure.

**Update Your Skills (Practical Courses)**
The following Update Your Skills (Practical Courses) are presented at ECR 2013:
- How to biopsy with US guidance
- Image-guided tumour ablation: How to do it

The number of participants of each workshop is restricted. Please refer to pages 146–147 for the course programmes.

**Wireless LAN**
Free wireless LAN access is available throughout the congress venue. The public WiFi ‘ECR’ requires a login. Please log in with the following data:

**Username:** ecr
**Password:** ecr2013

In addition, every lecture room is equipped with a dedicated WiFi network. Login data will be provided onsite.
General Information

Each ECR delegate receives confirmation of all activities attended (CME confirmation – Record of attendance). The approximate maximum number of hours of scientific activity attendance is 40 (please note that this number differs from the maximum number of UEMS/EACCME credits).

CME Accreditation

Europe
The following European countries accept the ECR 2013 CME accreditation:
- Austria*
- Azerbaijan
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Georgia
- Germany**
- Greece
- Hungary
- Iceland
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Norway
- Poland
- Portugal
- Romania
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland***
- Turkey
- United Kingdom

* The ESR is an accredited CME provider of the Austrian Medical Chamber. The Austrian Medical Chamber has granted a maximum of 40 DFP (Diplom-Fortbildungs-Programm der Österreichischen Akademie der Ärzte) credits for ECR 2013.

** The German Society of Radiology (DRG) has granted a minimum of 27 Category 1-credits for ECR 2013. The actual number of credits granted will depend on the respective German State Chamber of Physicians (Landesarztekammer) and can be accordingly higher.

*** The Swiss Society of Radiology (SGR-SSR) has granted a maximum of 40 Category 1-credits for ECR 2013.

UEMS
The ESR – European Society of Radiology is accredited by the European Accreditation Council for Continuing Medical Education (EACCME) to provide the following CME activity for medical specialists. The EACCME is an institution of the European Union of Medical Specialists (UEMS).
The ECR 2013 is designated for a maximum of 27 hours of European external CME credits. Each medical specialist should claim only those hours of credit that he/she actually spent in the educational activity. European Accreditation is granted by the EACCME in order to allow participants to validate the credits obtained at this activity in their home European Country.

USA
Due to an agreement of mutual recognition the American Medical Association (AMA) will convert European continuing medical education (CME) credits to AMA PRA Category 1 Credits™. For further information about the conversion of European credits into AMA PRA Category 1 credits, please contact the AMA at pra@ama-assn.org or visit the AMA website.

Worldwide
CME claimed at the ECR are accepted by almost all national CME authorities worldwide.

CME Acquisition Procedure

CME (continuing medical education) credits will only be awarded, if
- the questionnaire provided at the entrance of each session is fully completed,
- your unique personal CME sticker, which you will receive together with your badge, is affixed,
- and the form is dropped into the provided box immediately after the relevant scientific session.
- The combined participation and evaluation questionnaire considerably helps the next organising committee to select subjects for future ECRs. Evaluation sheets differ depending on the types of the scientific event.
- Please note that confirmation of any additional attendance of the scientific programme, for which you have not submitted an evaluation form during the congress, cannot be claimed at a later date as late requests cannot be processed and can thus not be included in your record of attendance.

Guidance

Confirmation of participation in the scientific programme is to be obtained as follows:

Scientific Sessions
1. Participate in the event of your interest.
2. Personalise the relevant questionnaire (evaluation form) using your CME sticker, since otherwise it is not possible to sort out the forms afterwards and to provide confirmation.
3. Fill in this form completely during the session.
4. Drop the completed form into the box provided at the exit of the room when leaving the session.
**Scientific Exhibition**

Attendance and evaluation are recorded online in EPOS™.
1. Enter EPOS™ (Electronic Presentation Online System) and view the posters of your interest. When logging out from EPOS, you will be asked to complete the evaluation form.
2. Fill in this form completely and press the ‘Submit’ button.

A maximum of 3 hours of attendance at the scientific exhibition (SE) will be listed if the participant has completed and submitted the online SE evaluation form using EPOS™ (Electronic Presentation Online System).

**CME Confirmations**

Every participant will be able to view and print his/her personal record of attendance from the internet at the MyUserArea on the condition that the above mentioned procedures have been accomplished. This service is already available onsite at the numerous computer terminals and at the registration desk. Please note that your Personal ID, printed on your badge, is required for login.

The printout of your record will be recognised by the national accreditation society upon submission. Please note that the record of attendance will be issued only to the participant. It will not be supplied to any accreditation agency or other organisation/health authority.

After the congress CME certificates will still be available online. To show and print your CME certificates after the congress, please log into the MyUserArea with your last name and Personal ID.

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

For further information, please contact the ECR CME Support at cme@myESR.org.
**General Information**

**ESR Meets Sessions**

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**Friday, March 8, 10:30–12:00, Room B**

**ESR meets Spain**

**EM 1: Imaging: essential tool from diagnosis to treatment**

Welcome by the ESR President

G.P. Krestin; Rotterdam/NL

**Presiding:**

- **Introduction [A-111]**
  - C. Ayuso; Barcelona/ES
- **Ischaemic stroke [A-112]**
  - J. Macho; Barcelona/ES
- **Interlude: Spanish radiologists: open to the world [A-113]**
  - E. Fraile Moreno; Madrid/ES
- **Aortic aneurisms [A-114]**
  - J.J. Martínez Rodrigo; Valencia/ES
- **Interlude: Radiologists and Spanish wines [A-115]**
  - L. Martí-Bonmati; Valencia/ES
- **Hepatocellular carcinoma: the BCLC approach [A-116]**
  - M. Burrel; Barcelona/ES
- **Panel discussion:**
  - Is the multidisciplinary environment the natural way to develop excellence and leadership in clinical imaging?

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**Friday, March 8, 16:00–17:30, Room B**

**ESR meets E-AHPBA**

(European-African Hepato-Pancreato-Biliary Association)

**EM 2: Pancreatic cystic neoplasms 2013**

Welcome by the ESR President

G.P. Krestin; Rotterdam/NL

**Presiding:**

- **Introduction [A-144]**
  - P.-A. Clavien; Zurich/CH
- **Classification/pathology [A-145]**
  - C. Verbeke; Stockholm/SE
- **Radiological diagnosis [A-146]**
  - S. Skehan; Dublin/IE
- **Current role of endoscopic ultrasonography [A-147]**
  - P. Bauerfeind; Zurich/CH
- **How aggressive should the surgeon be? [A-148]**
  - K. Conlon; Dublin/IE
- **Panel discussion**

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**Saturday, March 9, 10:25–12:00, Room B**

**ESR meets South Africa**

**EM 3: Imaging HIV and TB**

Welcome by the ESR President

G.P. Krestin; Rotterdam/NL

**Presiding:**

- **‘Big Five’ video**
- **Introduction [A-256]**
  - C.W. Sperryn; Cape Town/ZA
- **HIV-related cerebrovascular disease: the South African experience [A-257]**
  - V. Mingomezulu; Johannesburg/ZA
- **Interlude: Radiology training in South Africa**
  - Z. Lockhat; Pretoria/ZA
- **New concepts in the pathogenesis of cerebral TB [A-258]**
  - P. Janse van Rensburg; Stellenbosch/ZA
- **Interlude: South Africa: the country, its people, its diversity and its attractions [A-259]**
  - Z. Lockhat; Pretoria/ZA
- **Spinal tuberculosis in children [A-260]**
  - T. Kilborn; Cape Town/ZA
- **Chronic chest radiographic changes in a cohort of HIV-infected South African children [A-261]**
  - R. Pitcher; Cape Town/ZA
- **Panel discussion:**
  - HIV and TB: What impact do they have on health care workers?
Sunday, March 10, 10:30–12:00, Room B

ESR meets Chile
EM 4: Topics of ongoing radiological research from the Andes

Welcome by the ESR President
G.P. Krestin; Rotterdam/NL

Presiding: J.I. Bilbao; Pamplona/ES
M.A. Pinochet; Santiago/CL

- Introduction:
  Radiology in Chile: reality and challenges [A-403]
  P. Soffia; Santiago/CL
  M.A. Pinochet; Santiago/CL

- TIRADS: a US classification of thyroid nodules related to cancer risk [A-404]
  E. Horvath; Santiago/CL

- Interlude: Chile, land of geographical and cultural contrasts [A-405]
  G. Soto Giordani; Santiago/CL

- Neuroimaging in epilepsy: in search of invisible lesions [A-406]
  M. Galvez; Santiago/CL

- Interlude: Chile, land of wine and poets [A-407]
  G. Soto Giordani; Santiago/CL

- MDCT patterns in mesenteric ischaemia: usefulness in predicting clinical outcome [A-408]
  A. Huete; Santiago/CL

- Panel discussion:
  Creating networks between Latin American and European radiology: a unique opportunity for collaborative research projects

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Saturday, March 9, 14:00–15:30, Room B

ESR meets Spain
(European Federation of Radiographer Societies)
EM 5: Knowledge development as a tool for radiographers’ professional improvement

Presiding: G. Paulo; Coimbra/PT
C. Ruiz Blanco; Madrid/ES

- Introduction [A-284]
  G. Paulo; Coimbra/PT
  C. Ruiz Blanco; Madrid/ES

- The Spanish radiographer’s role in advanced MRI research [A-285]
  E. Alfayate Sáez; Madrid/ES

- The radiographer’s specialisation in ultrasound: two decades of experience in a public hospital [A-286]
  M.P. Peña Fernández; Madrid/ES

- Interlude: Radiology and Spanish art [A-287]
  C. Ruiz Blanco; Madrid/ES

- The radiographer as the interface between patient and technology in promoting safety in radiation protection [A-288]
  J.A. Sória Jerez; Madrid/ES

- Educational status of radiographers in Spain: comparison with the EU [A-289]
  M.R. Soto García; Barcelona/ES

- Panel discussion:
  Could a transnational and multi-professional combined statement contribute to professional development?
When you've checked in to ECR 2013 on Foursquare, catch up with the latest #ECR2013 news on Twitter, become a fan and post us a photo on Facebook and then check out our videos on YouTube.

‘ECR 2013’ on Foursquare - twitter.com/myESR - facebook.com/myESR - youtube.com/myESR
Plenary Sessions

Thursday, March 7, 17:45–19:15, Room A

Opening Ceremony
Musical entertainment by Janoska Ensemble & Friends

Welcome Addresses
Gabriel P. Krestin; Rotterdam/NL
ESR President
José Ignacio Bilbao; Pamplona/ES
ECR 2013 Congress President

Presentation of ESR Honorary Membership
Presentation of ESR Honorary Membership to
George S. Bisset III; Houston, TX/US
Tarek A. El-Diasty; Mansoura/ET
Gary M. Glazer; Stanford, CA/US†

Opening Lecture
Promises and facts of liver-directed gene therapy
Jesus Prieto; Pamplona/ES

Friday, March 8, 12:15–13:15, Room A

Presentation of the ESR Gold Medal Award
Presentation of the ESR Gold Medal Award to
José Cáceres; Barcelona/ES
Johannes Lammer; Vienna/AT
Maximilian F. Reiser; Munich/DE

Josef Lissner Honorary Lecture
MR-guided focused ultrasound: a new string to the radiologist’s bow
Carlo Catalano; Rome/IT

Saturday, March 9, 12:15–12:45, Room A

Wilhelm Conrad Röntgen Honorary Lecture
Interventional oncology: the era of molecular targeted therapy
Jean-François Geschwind; Baltimore, MD/US

Saturday, March 9, 14:00–15:30, Room A

Image Interpretation Quiz
Radiology is global
Moderator: Dierk Vorwerk; Ingolstadt/DE

Sunday, March 10, 12:15–12:45, Room A

Santiago Ramón y Cajal Honorary Lecture
Research and science: from individuals to societies – the Ramón y Cajal background
Luis Martí-Bonmatí; Valencia/ES

Sunday, March 10, 13:00–14:00, Room A

Junior Image Interpretation Quiz
Golden Eye
Moderator: Anna Alguersuari; Sabadell/ES
Co-Moderator: Ernest Belmonte; Barcelona/ES
Social Media Guide
myESR, @myESR & #ECR2013

myESR Facebook Page | facebook.com/myESR
Full congress coverage, daily photo uploads, daily news, competitions and much more. If you have photos or tips for the myESR community, post them on our wall!

ECR 2013 Facebook Event
Since you’re attending ECR 2013, it’s time to update your Facebook Timeline and RSVP to the official Facebook event.

myESR Twitter | twitter.com/myESR
Get the latest and hottest news live from the congress. Follow @myESR and tweet at us to let us know you’re here.

Tweeting about ECR? Using Google+? Taking pictures with Instagram?
Here are the official hashtags:
General: #ECR2013 | ESR Rising Stars: #ESRRisingStars

Other useful hashtags:
ECR 2013 Party: #ECRPary

Check in at ECR 2013: Facebook Places & Foursquare
Look out for the official venues and check in!

Communication at ECR 2013
Bring all your ECR 2013 social media activity together in one place by using our ECR Social Media Wall. The wall will collect posts and tweets in one convenient stream, which will be visible to participants throughout the congress venue. But you can also access it from anywhere, whether you’re at the congress venue, in your hotel, at home, using your laptop or smartphone, or at our internet terminals.

ECR Live
Your colleagues can also join you at the ECR, online and live via our video and social media stream. Sessions will be streamed for free; just visit the myESR.org homepage and look out for ECR Live. And don’t forget to subscribe to our YouTube channel: www.youtube.com/myESR

Want more? Add our other pages to your stream:
ESR Rising Stars: facebook.com/ESRRisingStars
Insights into Imaging: facebook.com/Insights.into.imaging
European Radiology: facebook.com/EurRadiol
European Diploma in Radiology: facebook.com/EuropeanDiplomaInRadiology
ESOR: facebook.com/EuropeanSchoolofRadiology

The whole ECR in your hand: ECR 2013 App
Browse through the programme, schedule your favourite sessions and download your personal book of abstracts. No need to carry all those congress booklets with you ...
Information from A to Z

General Information

myESR Facebook Page | facebook.com/myESR

Full congress coverage, daily photo uploads, daily news, competitions and much more.

If you have photos or tips for the myESR community, post them on our wall!

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myESR Twitter | twitter.com/myESR

Get the latest and hottest news live from the congress. Follow @myESR and tweet at us to let us know you're here.

Tweeting about ECR? Using Google+? Taking pictures with Instagram?

Here are the official hashtags:

General:
#ECR2013

ESR Rising Stars:
#ESRRisingStars

Tweeting about a particular session or room?
Add the room name to the hashtag: #ECR2013A, #ECR2013B, #ECR2013Studio, etc. You can also add a simplified presentation or session number: e.g.: A-123 ‣ #A123 or SF 4 ‣ #SF4

Other useful hashtags:

ECR 2013 Party:
#ECRParty

Check in at ECR 2013: Facebook Places & Foursquare

Look out for the official venues and check in!

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ECR Live

Your colleagues can also join you at the ECR, online and live via our video and social media stream.

Sessions will be streamed for free: just visit the myESR.org homepage and look out for ECR Live.

And don't forget to subscribe to our YouTube channel: www.youtube.com/myESR

Want more? Add our other pages to your stream:

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Insights into Imaging: facebook.com/insights.into.imaging

European Radiology: facebook.com/EurRadiol

European Diploma in Radiology: facebook.com/EuropeanDiplomainRadiology

ESOR: facebook.com/EuropeanSchoolofRadiology

Social Media Guide

myESR, @myESR & #ECR2013

The whole ECR in your hand: ECR 2013 App

Browse through the programme, schedule your favourite sessions and download your personal book of abstracts. No need to carry all those congress booklets with you...

#Radiology + #Vienna = #ECR2013
Here we go!
Activities 2013

Visiting Schools
Visiting Seminars
Visiting Scholarship Programmes
Exchange Programmes for Fellowships
Teach-the-Teachers Programme
Visiting Professorship Programme

Join us on
facebook.
The Image Interpretation sessions, two traditional highlights of every ECR, provide both education and entertainment. Two panels of distinguished radiologists will share their knowledge and diagnosis strategies with you.

The slogan for this year’s ‘senior’ quiz is ‘Radiology is global.’ Radiologists will challenge each other in an enjoyable and exciting competition where they will face some tricky cases. The session will be presented interactively and e-voting units will be provided to the audience.

In the ‘junior’ quiz, with its theme ‘Golden Eye,’ the panellists will compete with each other in teams. While solving a variety of cases, the moderator will guarantee a scientifically challenging and entertaining session.

**Saturday, March 9, 14:00–15:30, Room A**

**Image Interpretation Quiz: Radiology is global**

**Moderator:** D. Vorwerk; Ingolstadt/DE

**Referee:** A. Agrawal; Delhi/IN

**Panellists:**

**Team 1:**
- A.R. Gillams; London/UK
- T. Leiner; Utrecht/NL
- A. Oikonomou; Alexandroupolis/GR
- C.W. Sperryn; Cape Town/ZA

**Team 2:**
- F.M. Danza; Rome/IT
- H.B. Eggesbo; Oslo/NO
- P. Rogalla; Toronto, ON/CA
- M. Studniarek; Gdansk/PL

**Sunday, March 10, 13:00–14:00, Room A**

**Junior Image Interpretation Quiz: Golden Eye**

**Moderator:** A. Alguersuari; Sabadell/ES

**Co-Moderator:** E. Belmonte; Barcelona/ES

**Panellists:**
- G. Gherarducci; Pisa/IT
- C. Sayer; Brighton/UK
- C.M. Sommer; Heidelberg/DE
- L. Tzarouchi; Ioannina/GR
- A. Vanrossomme; Brussels/BE
GOAL
The EIBIR Summer School on Neurology Imaging is a multidisciplinary summer school, uniting 50 young researchers from a variety of backgrounds. The high scientific level and the relaxed atmosphere invite a close and fruitful interaction between everybody present, both participants and staff.

TOPICS
Imaging modalities (MR, PET, CT), quantitative image analysis, (open-source) tools for image analysis, neuro- and population imaging and image analysis in clinical practice, validation and open-source databases, atlases, applications in the clinic, small animals and clinical trials.

FACULTY
Dirk Loeckx
Wiro Niessen
Sébastien Ourselin
Daniel Rueckert
Xavier Golay
Roger Gunn (tbc)
Nick Fox (tbc)
Aad Van der Lugt (tbc)
Julia Schnabel
Alex Hammers

Due to the great success in 2011, we proudly present the third edition of the EIBIR Summer School.

Registration and more info on www.eibir.org/school
**Session 1: Innovation management and the future of radiology and radiologists**

**Chairmen:** Yves Menu; Paris/FR  
Peter Mildenberger; Mainz/DE

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
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<tbody>
<tr>
<td>13:00</td>
<td>Welcome by the chairs</td>
</tr>
<tr>
<td>13:10</td>
<td>Imaging innovation and the future practice of radiology</td>
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<td></td>
<td>Bruce Hillman; Charlottesville, VA/US</td>
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<tr>
<td>13:40</td>
<td>Resident training: preparing young radiologists for the future</td>
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<td>Birgit Ertl-Wagner; Munich/DE</td>
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<td>13:45</td>
<td>Research, EIBIR, HTA</td>
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<td>Luis Donoso; Barcelona/ES</td>
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<td>13:50</td>
<td>Health technology assessment: can we show that radiology is value for money?</td>
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<td>Jane Adam; London/UK</td>
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<td>13:55</td>
<td>Leadership and personal development</td>
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<td>Yves Menu; Paris/FR</td>
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<tr>
<td>14:00</td>
<td>New imaging methods</td>
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<td>Moshe Graif; Tel Aviv/IL</td>
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<td>14:05</td>
<td>Radiology 2020: residents’ and fellows’ perspectives</td>
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<td>Myriam Edjlali-Goujon; Tours/FR</td>
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<tr>
<td>14:10</td>
<td>Debate on innovation management and requirements of radiology</td>
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<td>14:45</td>
<td>Coffee Break</td>
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Opening Hours
Thursday, March 7 to Monday, March 11: 08:00–18:00

The staff of the EPOS™ Service Desk will be glad to assist you during these times.

Location
Foyer A, 2nd level

Note:
On Saturday, March 9, 12:15–13:15, EPOS™ will be closed for a self assessment test for the participants of the foundation course on neuroimaging.
Thank you for your understanding!

WiFi in the EPOS™ Lounge
ECR delegates can access all posters of ECR 2013 at the computer terminals in the EPOS™ classroom. In addition, a dedicated wireless internet network is available in the EPOS™ Lounge (name ‘EPOS WiFi’), through which the poster exhibition can be accessed as if from within the classroom. Connect your mobile device to the network and open your internet browser, which will direct you to EPOS™. (Please note that this dedicated network only allows access to EPOS™).

What’s in EPOS™ at ECR 2013?
• Over 2,600 new scientific and educational exhibits and scientific paper presentations
• 20 new Cases-of-the-Day (five new cases each day)
• 4 Self-Assessment modules on ECR 2013 courses:
  – Categorical Course ‘CLICK (Clinical Lessons for Imaging Core Knowledge): Never without Arteries’
  – Categorical Course ‘Urogenital Imaging’
  – Mini Course ‘Organs from A to Z: Heart’
  – Foundation Course ‘Neuroimaging’
• EURORAD – Europe’s largest radiological case database

Scientific Exhibition Awards
A jury of European radiologists has judged all scientific and educational exhibits with regard to their scientific content, educational value, originality and visual impression. Taking advantage of EPOS™, the rating was carried out online, prior to the congress, enabling a detailed and considered assessment. On this basis, the Scientific Exhibition Committee has awarded the best posters with Magna Cum Laude, Cum Laude and Certificate of Merits. Awardees can pick up their certificates at the EPOS™ Service Desk. Each of the Magna Cum Laude awardees will also be granted free ECR 2014 registration.
All awarded posters are flagged in EPOS™ and will be published on the ESR website and on myESR.org/epos

EPOS Discussions
To enhance interaction, discussions on hot topics in radiology have been arranged, where authors of the selected and best-scored posters in each field will discuss them with a moderator. All discussions take place in the EPOS™ Area in Foyer A (2nd level) and ECR delegates are welcome to join, listen, and discuss with the experts. The discussion rounds will be:

Friday, March 8, 10:00–10:30
Imaging of the scrotum: why considering MR?
Moderator: Lorenzo E. Derchi; Genoa/IT

Friday, March 8, 12:30–13:00
Paediatric neuroimaging
Moderator: Andrea Rossi; Genoa/IT

Friday, March 8, 15:30–16:00
Plaque imaging and myocardial characterisation
Moderator: Valentin Sinitsyn; Moscow/RU

Saturday, March 9, 10:00–10:30
CT and MRI diagnosis of focal liver masses: when to use what?
Moderator: Pablo Ros; Cleveland, OH/US

Saturday, March 9, 15:30–16:00
Paediatric chest and heart: state of the art imaging of the young patient
Moderator: Rick R. van Rijn; Amsterdam/NL

Sunday, March 10, 12:30–13:00
Vascular imaging: CT, MR – or something completely different?
Challenges in imaging peripheral artery occlusive disease
Moderator: Christian Loewe; Vienna/AT

Attendance (CME) and Evaluation
Attendance of the scientific exhibition is recorded online in EPOS™:
1. Enter EPOS™ and view the posters of your interest. When logging out, you will be asked to complete the evaluation form.
2. Fill in this form and press the ‘Submit’ button.
The evaluation of the electronic scientific exhibition is very important for future planning and your opinion and comments will be highly appreciated.
For those who login and submit completed evaluation forms, a maximum of 3 hours attendance at the scientific exhibition will be listed in the record of attendance (CME confirmation).

EPOS™ at ECR 2013 is kindly supported by Hewlett-Packard.
ESR thanks all reviewers

We cordially thank the members of the Scientific Exhibition Committee and the EPOS Reviewers who reviewed abstracts and graded electronic posters in the past months, establishing the basis for presenting the awards.

(in alphabetical order)

E. Ada; Izmir/TR
H.C. Addley; Cambridge/UK
H. Ahmadzadehfar; Bonn/DE
A. Alberich-Bayarri; Valencia/ES
H. Alkadhi; Zurich/CH
G.C. Anselmetti; Candiolo/IT
I. Arkhipova; Moscow/RU
N. Bargalló Alabart; Barcelona/ES
I. Bargellini; Pisa/IT
A. Barile; L’ Aquila/IT
T.V. Bartolotta; Palermo/IT
G. Bastarrika; Pamplona/ES
T. Baumann; Freiburg/DE
A.J. Beer; Munich/DE
M.-F. Bellin; Villejuif/FR
K.S.S. Bhatia; Hampton/UK
A. Blandino; Contemplazione, Messina/IT
J.G. Blickman; Rochester/US
E. Blumfield; New York/US
A. Bozzao; Rome/IT
F. Cademartiri; Monastier di Treviso/IT
C. Calli; Izmir/TR
F. Calliada; Pavia/IT
R.S.D. Campbell; Liverpool/UK
D. Caramella; Pisa/IT
N.M. Caserta; Campinas/BR
W. Chamroonrat; Philadelphia/US
T.M. Cunha; Lisbon/PT
J. Damilakis; Iraklion/GR
A.I.B. De Backer; Ghent/BE
A. de Roos; Leiden/NL
S. Delorme; Heidelberg/DE
V. Dialani; Birmingham/UK
O. Ekberg; Malmö/SE
B.B. Erlt-Wagner; Munich/DE
Y. Fargeaudou; Clichy/FR
E.F.C. Fleury; Sao Paulo/BR
R. Forstner; Salzburg/AT
A. Fotiadou; Huntingdon/UK
F. Frauscher; Innsbruck/AT
S. Freeman; Cambridge/UK
M.T.G. Gaskarth; Cambridge/UK
J.-T. Geitung; Bergen/NO
A. Ghiatas; Ekali-Athens/GR
S. Gourtsoyianni; London/UK
A. Guermazi; Boston/US
B. Hansson; Stockholm/SE
C. Herzog; Munich/DE
H. Herverhagen; Marburg/DE
J. Hodel; Paris/FR
A. Jackson; Manchester/UK
T. Jakobs; Munich/DE
J.A. Jakobsen; Oslo/NO
C. Kahn; Milwaukee/US
N. Kalyvas; Athens/GR
A. Kassarjian; Majadahonda (Madrid)/ES
F. Knollmann; Pittsburgh/US
E. Kotter; Freiburg/DE
K.-F. Kreitner; Mainz/DE
M. Krokidis; Cambridge/UK
A. Laghi; Latina/IT
J. Laissy; Paris/FR
M. Lemmerling; Beervelde/BE
D. Litmanovich; Boston/US
E. Llopis; Alzira/ES
R. Llorens; Valencia/ES
I.G. Lupescu; Bucharest/RO
M.G. Mack; Baierbrunn/DE
A. Mahnken; Marburg/DE
L. Mannelli; Seattle/US
R. Manns; Telford/UK
K. Marten-Engelke; Göttingen/DE
C. Matos; Brussels/BE
J. McHugo; Birmingham/UK
E. Mershina; Moscow/RU
P. Mildenberger; Mainz/DE
M. Minami; Ibaraki/JP
G. Morana; Treviso/IT
P.L. Moyle; Cambridge/UK
V.F. Muglia; Ribeirao Preto/BR
K. Nikolaou; Munich/DE
M. Notohamiprodjo; Munich/DE
S. Nougarret; St. Clement de Riviere/FR
A. Offiah; Sheffield/UK
A. Oikonomou; Alexandroupolis/GR
Y. Oishi Tanaka; Tsukuba/JP
M. Onu; Bucharest/RO
L. Pallwein-Prettner; Linz/AT
V. Panebianco; Rome/IT
G. Piırtan; Vienna/AT
A. Paterson; Belfast/IE
L.J. Pina Insauti; Pamplona/ES
K. Pinker-Domenig; Vienna/AT
T.J. Popiela; Krakow/PL
PK. Prassopoulos; Alexandroupolis/GR
L. Preda; Milan/IT
S. Puig; Vienna/AT
E. Quaia; Trieste/IT
D. Regge; Candiolo-Torino/IT
A. Righini; Milan/IT
P. Rinaldi; Rome/IT
S. Robinson; Vienna/AT
J. Romero; Boston/US
A. Rovira-Canellas; Barcelona/ES
R. Rzanny; Jena/DE
R. Sanz-Requena; Valencia/ES
G. Savino; Rome/IT
M. Scharitter; Vienna/AT
K. Schürrmann; Aachen/DE
T.C. See; Cambridge/UK
M.J. Shelly; Dublin/IE
P. Sijens; Groningen/NL
G.N. Simao; Ribeirao Preto/BR
W.H. Sommer; Munich/DE
S. Steens; Nijmegen/NL
W. Stiller; Heidelberg/DE
M. Sumi; Nagasaki/JP
D. Tack; Braine-l’Alleud/BE
A. Taibbi; Palermo/IT
S.A. Taylor; London/UK
G. Thornbury; Belfast/UK
M. Toepker; Vienna/AT
M. Torkzad; Sollentuna/SE
D. Tsitisis; Iraklion/GR
A. Tsili; Ioannina/GR
S. Ulmer; Kiel/DE
E.J.R. van Beek; Edinburgh/UK
W.J.M. van der Putten; Galway/IE
M.I. Vargas; Geneva/CH
B. Verbiest; Leiden/NL
J.A. Verschakelen; Leuven/BE
M.G. Wallis; Cambridge/UK
A. Wibmer; Vienna/AT
D. Wormanns; Berlin/DE
K. Wörter; Munich/DE
X. Wortsman; Santiago/CL
P. Wunderlich; Radebeul/DE
Visit the EPOS™ Area on the second level.

Browse through thousands of electronic posters from ECR 2003–2013 and other congresses.

www.myESR.org/epos
**EPOS™ – Electronic Presentation Online System**

**Let’s celebrate the 10th anniversary of EPOS™!**

In 2003, ECR introduced an all-electronic scientific exhibition using EPOS™, the Electronic Presentation Online System, thus setting new standards in the medical meeting industry.

EPOS™ contains over 16,000 electronic exhibits from ECR 2003–2013 and from other congresses:
- **Online** at www.myESR.org/epos or in the **EPOS™ Area on the 2nd level**.

EPOS™ at ECR 2013 is kindly supported by Hewlett-Packard.

[www.myESR.org/epos](http://www.myESR.org/epos)

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**EURORAD – Radiological Case Database**

The largest peer-reviewed teaching database of radiology on the internet offers free access to a wealth of medical information and imaging data, whose accuracy and quality have been validated by some of the most experienced radiologists in Europe. Submitting to and publishing in EURORAD is an exclusive benefit of ESR membership.

EURORAD contains case reports for medical students (simple cases), residents in radiology (everyday cases) and senior radiologists (complex cases) in all radiological specialties.

For easy retrieval of required cases, the website offers a powerful search engine as well as multi-lingual navigation (English / Spanish / French). EURORAD allows you to download, save, and print the cases as PDF documents, or e-mail them via the web-based e-mail client. All EURORAD cases are registered with a unique DOI (Digital Object Identifier), which makes all cases citable.

[www.eurorad.org](http://www.eurorad.org)
A notably popular feature at the European Congress of Radiology is the special exhibition, initiated and compiled by Prof. Hermann Vogel from Hamburg, Germany, in cooperation with the Deutsches Röntgenmuseum, which has been part of the annual meeting for years. This year’s exhibit is entitled: X-Rays: Evidence and Threat.

This year’s exhibition covers a wide variety of instances where imaging has been used, from the outlandish to the downright gruesome. It includes images of injuries sustained from terrorist attacks, accidents and torture. It also demonstrates how imaging has been used to detect drugs and explosives hidden inside the human body, as well as some other more benign cosmetic implants.

This exhibition provides a unique insight into the physical aftermath of many tragic incidents while also delving into some non-medical imaging applications. It promises to be an eye-opening experience for all.

Prof. Hermann Vogel is head physician at the Albers-Schönberg-Institute, the department of radiology at St. Georg Hospital in Hamburg. The new exhibition, which will be shown for the first time at ECR 2013, again features more than 20 posters with partly provocative images.

The exhibition is presented on the 2nd level of the congress venue next to the EPOS Area.
Cafés & Restaurants at ECR 2013

Want to take a short break? Looking for the right place to eat? – The best spots to relax and enjoy tasty hot and cold snacks are our various foyer cafés and restaurants. They are situated throughout the whole congress venue and across all levels of the building. To offer you the broadest variety of Austrian and international delicacies, each café and restaurant has its own theme, from Austrian specialties and Italian treats to Mediterranean pleasures and Asian delights.

Lower level, Expo Foyer D
Italian Snack Lounge

Lower level, Foyer G/H (next to Room G/H)
Mediterranean Corner

Lower level, Foyer I/K (next to Room I/K)
Asian Delights – authentic Asian cuisine

Entrance level (next to the main entrance)
Café Accademia: Accademia del Caffè

1st level, within EDIPS – Preview Centre
Vital Lounge

2nd level, Foyer A (in the EPOS Area)
Viennese Snacks & Pastries

2nd level, Foyer B (in the Rising Stars Lounge)
Snack Lounge

2nd level, Foyer C (next to Room C)
Italian Restaurant

Expo C
Café Vienna: Austrian Specialties

Expo E
Bar XXI

Expo Extension A
Snack Café

Free Publications at ECR 2013

Broaden your horizons with Free Publications at ECR 2013

The Free Publications initiative will run for the seventh consecutive year after attracting increasing levels of attention at ECR 2012. The Free Publications booth will be located on the second level of the ACV next to the EPOS Area. The booth will be richly stocked with a galaxy of fascinating reading material from many of our associated organisations and publishing houses from around the world, such as Globetech, Diagnostic Imaging, MindByte and European Hospital.

In addition to a broad library of print media, internet terminals will also be installed nearby, providing access to a wide variety of online publications.

About 20 publishers will provide more than 30 different titles for this initiative, ranging from copies of the ESR’s flagship journals European Radiology and Insights into Imaging, to issues from as far afield as Lebanon, many of which will also be available online. Interested delegates can peruse La Radiologia Medica, pick up a copy of International Hospital and browse the online Imaging Management, among others. It is a rare chance to learn from so many diverse medical imaging communities from around the globe, and in this case it is something you can take away with you, with free bags provided to help you make the very best of the opportunity.

We are of course enormously grateful for the enthusiasm of our friends in the publishing industry for making the Free Publications initiative possible, and allowing us to provide ECR participants with the chance to pick up some literature and broaden their medical imaging horizons.

Free Publications Booth: 2nd level, next to the EPOS Area.
Enjoy Vienna’s cultural highlights

Visit the Arts & Culture Desk in the entrance hall
Visit the Technical Exhibition!

And learn all about the most recent developments in healthcare technology.

Opening hours:

**EXPO Halls and EXPO Foyer D**
- Friday, March 8 to Sunday, March 10: 10:00–18:00
- Monday, March 11: 10:00–14:00

**First Level (Gallery)**
- Thursday, March 7: 14:00–18:00
- Friday, March 8 to Monday, March 11: 10:00–18:00
General Information

ECR 2013 welcomes its industry partners

The ESR welcomes its Supporting Members

The ESR gives a warm welcome to all its existing and newly joined supporting membership companies!

As the ECR puts a special focus on innovation and keeping up to date with recent developments in the field, a close cooperation with the industry leaders is indispensable.

The companies contribute with their active involvement to the success of the society and its congress with their continuous support for the cause of radiology in Europe.

ESR Supporting Members:

4-star:
- Agfa HealthCare
- Bayer HealthCare
- Bracco Imaging
- Canon Europe
- Carestream Health
- Covidien – Mallinckrodt
- Esaote
- Fujifilm Europe
- GE Healthcare
- Guerbet
- Hitachi Medical Systems Europe
- Hologic
- Philips Healthcare
- Samsung Medison
- Siemens Healthcare Sector

3-Star:
- Shenzhen Mindray Bio-Medical Electronics
- TeraRecon

2-Star:
- Cerner Corporation
- Novarad Corporation
- Paramed Medical Systems
- Shimadzu Europa
- Swissray Medical

Thank you for your involvement!

‘ESR meets’ countries

Each year the ECR places a special focus on its ‘ESR meets’ countries – in 2013 namely Spain, South Africa and Chile – with particular emphasis on their scientific and technological developments. The ESR, industry companies and the national societies work closely together to highlight these countries.

Additionally, we are proud to present you the ‘ESR meets’ partner discipline; E-AHPBA (European-African Hepato-Pancreato-Biliary Association).
Top radiologists read more than just images
European Radiology

*European Radiology at your fingertips!*

Carry Europe’s leading radiology journal with you wherever you go – with the **European Radiology App** – download the app from iTunes or via the QR code below.

*European Radiology* is the official journal of the ESR and official organ of numerous subspecialty organisations. It acts as a flagship, publishing original scientific papers in the radiological field with an **Impact Factor of 3.222** for 2011.

Full access to the online version of *European Radiology* is included in the ESR membership fee. ESR members can also arrange subscriptions for the printed version at special rates in the MyUserArea (www.myESR.org/MyUserArea under ‘MyJournals’).

Insights into Imaging

*The clearest insights ... for all to see!*

*Insights into Imaging* is the ESR journal for education and strategies in radiology. Besides excellent review articles, it publishes articles on professional issues, several official documents and political statements.

*Insights into Imaging* is an **Open Access journal** on the SpringerOpen platform – therefore all articles published are freely available. As benefit for ESR members, ESR covers the Article Processing Charges for all its active members!

As a reminder of the valuable content and its importance to every radiologist’s daily practice, a **special printed issue of Insights into Imaging** has been placed in all Students and Residents congress bags!

Free copies of this booklet are available from the journal’s booth in the entrance hall.

Links to the journals

www.european-radiology.org
www.i3-journal.org
Insights into Imaging
Education and strategies in European radiology

The clearest insights... for all to see!
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www.i3-journal.org
Full articles at www.i3-journal.org/articles

SpringerOpen
Johannes Krisch in Der Alpenkönig und der Menschenfeind by Ferdinand Raimund © Reinhard Werner / Burgtheater

More about theatres in Vienna: www.myESR.org/arts_culture
Floor Plans

78  U2 – Lower Level
79  U2 – Lower Level EXPO
80  OE – Entrance Level
81  OE – Entrance Level EXPO
82  01 – First Level
83  02 – Second Level
84  03 – Third Level
1. Meditation & Prayer Room
2. Broadcast Room G/H
3. Meeting Room 16
4. Meeting Room 15
5. Broadcast Room I/K
6. Future Meetings
1. Meeting Room 16
2. Future Meetings
1. Mondial
2. Travel Service
3. Arts & Culture
4. Restaurant Reservations
5. Registration
6. Broadcast Zone F1/F2
7. Photo Competition
8. Broadcast Zone E1/E2
1. Broadcast Zone L/M
2. Hologic Industry Hands-On Workshop Room
3. Broadcast Zone N/O
4. Meeting Room 14
1. Meeting Room 13
2. Broadcast Room B/C
3. Meeting Room 12
4. Meeting Room 11
5. Meeting Room 10
6. Special Exhibition
7. EPOS Discussions Corner
8. eHealth and Imaging Informatics
9. EIBIR IMAGINE Theatre
1. Meeting Room 1
2. Meeting Room 2
3. Meeting Room 3
4. Meeting Room 4
5. Meeting Room 5
6. Meeting Room 6
7. Meeting Room 7
8. Meeting Room 8
9. Meeting Room 9
10. Info Service Desk
11. Past Presidents Circle
Free ECR Student Registration
Students and radiographers-in-training under the age of 30, without any academic degree, can register for free.

Rising Stars Lounge
We want all students and residents to feel at home at the ECR, which is why we have provided the exclusive Rising Stars Lounge, located on the 2nd level in Foyer B.

Basic Sessions for Students, Residents and Radiographers-in-training

Student Sessions

Student Hands-On Workshops on Ultrasound

See pages 144–145 for more details
Find more information on myESR.org/RisingStars and become a Rising Star on Facebook: facebook.com/ESRRisingStars
Programme Overviews

88 Thursday, March 7
90 Friday, March 8
92 Saturday, March 9
94 Sunday, March 10
96 Monday, March 11
## Programme Overview

### Thursday, March 7

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<th>Room/Time</th>
<th>A 2nd Level</th>
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<th>D2 Lower Level</th>
<th>E1 Entrance Level</th>
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<td>10:30</td>
<td>SS 103 Cardiac CT and MRI in preoperative and postoperative evaluation (p. 214)</td>
<td>SS 111 Neuro Chest Neuro from structure to function (p. 214)</td>
<td>SS 104 Chest Lung cancer: from tissue characterisation to treatment (p. 215)</td>
<td>SS 109 Interventional Radiology Chemoembolisation and radioembolisation of liver tumours (p. 215)</td>
<td>SS 110 Musculoskeletal Shoulder and hand diseases: challenges and solutions (p. 216)</td>
<td>SS 101a GI Tract Acute bowel diseases: challenges and solutions (p. 216)</td>
<td>SS 116 Oncologic Imaging Perfusion CT and MRI: ready for clinical practice (p. 217)</td>
<td>SS 102 Breast Breast MRI: improving accuracy and tissue characterisation (p. 217)</td>
<td>SS 107 Genitourinary Prostate imaging (p. 218)</td>
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<td>14:00</td>
<td>E³ 220 Interactive Teaching Session Lung cancer (p. 156)</td>
<td>SS 208 Head and Neck head and neck cancer: functional imaging and hybrid modalities (p. 221)</td>
<td>SS 204 Chest Airways and infiltrative lung diseases (p. 222)</td>
<td>SS 209 Interventional Radiology Ablation and biopsy of the prostate and the kidney (p. 222)</td>
<td>SS 210 Musculoskeletal Lower limb: new imaging and biopsy imaging (p. 223)</td>
<td>SS 201a GI Tract Bowel imaging: protocol optimisation and intervention (p. 223)</td>
<td>SS 216 Oncologic Imaging New biomarkers for tumour quantification (p. 224)</td>
<td>SS 202 Breast Breast MRI: improving accuracy and tissue characterisation (p. 224)</td>
<td>SS 211 Neuro Infection and inflammation (p. 225)</td>
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<td>16:00</td>
<td>E³ 320 Interactive Teaching Session Malignant pancreatic tumours (p. 156)</td>
<td>RC 301 GI Tract Staging and restaging of rectal and anal cancer (p. 157)</td>
<td>RC 303 Cardiac Cardiac imaging: the cutting edge (p. 157)</td>
<td>RC 306 Molecular Imaging Molecular imaging in oncology (p. 157)</td>
<td>MS 3 Multidisciplinary Sessions: Managing Patients with Cancer Colorectal liver metastases (p. 157)</td>
<td>PC 3 Professional Challenges Session Brining radiotherapy to medical undergraduates (p. 157)</td>
<td>RC 302 Breast Functional imaging of the breast (p. 158)</td>
<td>RC 307 Genitourinary Renal and adrenal tumours (p. 158)</td>
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17:45-19:15 Room A: Opening Ceremony / Presentation of Honorary Members / Opening Lecture [p. 160]

Registration: Wednesday, March 6: 12:00–18:00 / Thursday, March 7 to Monday, March 11: 07:00–18:00
<table>
<thead>
<tr>
<th>Room/ Time</th>
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<td>RC 401 Abdominal Viscera Pitfalls in interpretation of pancreatic imaging (p. 161)</td>
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<td>E³ 520a Interactive Teaching Session Pitfalls in abdominal imaging (p. 165)</td>
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<td>12:30</td>
<td>12:15–12:45 Gold Medal Awards (p. 55)</td>
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**Registration:** 07:00–18:00  **EPOS™ – Scientific Exhibition:** 08:00–18:00
### Programme Overview

**Friday, March 8**

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<tr>
<td><strong>MC 428</strong> Joint Course of ESR and RSNA (Radiological Society of North America) Essentials in oncologic imaging; what radiologists need to know (part 1) (p. 163)</td>
<td><strong>MC 422</strong> Organs from A to Z: Heart Non-ischaemic heart disease (p. 164)</td>
<td><strong>EIBIR/EORTC Joint Workshop 4</strong> A radiologist with a ruler in his hand is a dangerous person: seeking standardisation in multicenter imaging trials (p. 166)</td>
<td><strong>PC 4</strong> Professional Challenges Session The visibility of the radiologist (p. 166)</td>
<td><strong>SF 4b Special Focus Session</strong> Justifying CT in paediatric radiology (p. 165)</td>
<td><strong>SK 427</strong> Image-Guided Tumour Ablation (p. 147)</td>
<td><strong>Rising Stars Basic 1</strong> (p. 144)</td>
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<td><strong>MC 528</strong> Joint Course of ESR and RSNA (Radiological Society of North America) Essentials in oncologic imaging; what radiologists need to know (part 2) (p. 166)</td>
<td><strong>SS 511 Neuro</strong> Stroke-related arterial disease (p. 232)</td>
<td><strong>SS 515 Vascular</strong> Novel tools for blood flow evaluation (p. 232)</td>
<td><strong>SS 503 Cardiac</strong> Advances in coronary CT angiography (p. 233)</td>
<td><strong>SS 514 Radiographers</strong></td>
<td><strong>SK 527 Image-Guided Tumour Ablation</strong> (p. 147)</td>
<td><strong>Rising Stars Basic 2</strong> (p. 144)</td>
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<td><strong>SS 516</strong> Neuro Beat the clock: the first 6 hours (p. 232)</td>
<td><strong>EIBIR/EORTC Joint Workshop 4</strong> A radiologist with a ruler in his hand is a dangerous person: seeking standardisation in multicenter imaging trials (p. 166)</td>
<td><strong>ESOR Session</strong> Fostering future researchers (p. 139)</td>
<td><strong>Student Workshop 2</strong> (p. 145)</td>
<td><strong>ESOR Session</strong> Fostering future researchers (p. 139)</td>
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<td><strong>MC 628</strong> Joint Course of ESR and RSNA (Radiological Society of North America) Essentials in oncologic imaging; what radiologists need to know (part 3) (p. 167)</td>
<td><strong>SS 608 Head and Neck</strong> Technical innovations, TMJ disease and rare entities (p. 238)</td>
<td><strong>SS 610b Musculoskeletal</strong> Arthritis: advanced imaging (p. 238)</td>
<td><strong>SS 609b Interventional Radiology</strong> Gynaecological and obstetric interventions (p. 239)</td>
<td><strong>Student Session 1</strong> (p. 144)</td>
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<td><strong>MC 728</strong> Joint Course of ESR and RSNA (Radiological Society of North America) Essentials in oncologic imaging; what radiologists need to know (part 4) (p. 171)</td>
<td><strong>MC 722 Organs from A to Z: Heart</strong> Ischaemic heart disease (p. 171)</td>
<td><strong>RC 709 Interventional Radiology</strong> Expanding the role of interventional radiology in hepatocellular carcinoma (p. 171)</td>
<td><strong>RC 714 Radiographers</strong> Clinical audit: from EURATOM to the clinical environment (p. 172)</td>
<td><strong>ESOR Session</strong> Fostering future researchers (p. 139)</td>
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<td><strong>SF 7c Special Focus Session</strong> Imaging in intensive care patients (p. 172)</td>
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<td><strong>Student Session 2</strong> (p. 144)</td>
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**Technical Exhibition: EXPO First Level (Gallery): 10:00–18:00**

**Technical Exhibition: EXPO Halls and EXPO Foyer D:10:00–18:00**
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<tr>
<td>08:30</td>
<td>E 820a Interactive Teaching Session Pitfalls in heart imaging (p. 175)</td>
<td>SF 8a Special Focus Session Is diagnostic catheter angiography still useful in neuroimaging? (p. 175)</td>
<td>NH 8 New Horizons Session MR/ PET: a marriage made in heaven or hell? (p. 175)</td>
<td>CC 818 CLICK (Clinical Lessons for Imaging Core Knowledge): Never without Arteries How old are you in reality? Vascular age and clinical events (p. 175)</td>
<td>CC 819 Oncologic Imaging: Follow-up of Systemic and Local Therapies Imaging after systemic therapies: advanced techniques (p. 176)</td>
<td>CC 817 Emergency Radiology Polytrauma: redlining imaging issues for management priorities (p. 176)</td>
<td>E 820b Foundation Course: Neuroimaging Metabolic and neurodegenerative disorders (p. 176)</td>
<td>RC 802 Breast Clinical challenges in breast MRI (p. 177)</td>
<td>SF 8b Special Focus Session GI imaging: technological advances and clinical applications (p. 177)</td>
<td>EF 1 EFOMP Workshop Lung and chest imaging: new approaches (p. 177)</td>
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<td>14:00</td>
<td>IIQ Image Interpretation Quiz (p. 140)</td>
<td>EM 5 EFRS meets Spain Knowledge development as a tool for radiographers’ professional improvement (p. 181)</td>
<td>SY 17 Hologic Satellite Symposium (p. 151)</td>
<td>SY 18 Toshiba Satellite Symposium (p. 151)</td>
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<td>16:00</td>
<td>E 1120 Interactive Teaching Session Breast cancer (p. 182)</td>
<td>SA 11 State of the Art Symposium Evaluation of response in haematological malignancy (p. 182)</td>
<td>CC 1121 Urogenital Imaging Stones: diagnosis and intervention (p. 182)</td>
<td>CC 1118 CLICK (Clinical Lessons for Imaging Core Knowledge): Never without Arteries Stroke (p. 182)</td>
<td>RC 1108 Head and Neck Skull base lesions: imaging studies and differential diagnosis (p. 183)</td>
<td>RC 1110 Musculoskeletal The knee (p. 183)</td>
<td>MS 11 Multidisciplinary Sessions: Managing Patients with Cancer Cholangiocarcinoma (p. 183)</td>
<td>SF 11 Special Focus Session Adults with congenital heart disease (GUCH) (p. 184)</td>
<td>PC 11 Professional Challenges Session Personalised radiotherapy (p. 186)</td>
<td>RC 1111 Neuro Brain tumours: advanced imaging techniques in daily practice - do we really need them? (p. 185)</td>
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Registration: 07:00–18:00  EPOS™ – Scientific Exhibition: 08:00–18:00
### Programme Overview

#### Saturday, March 9

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<td>RC 804 Chest</td>
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<td>RC 809 Interventional Radiology</td>
<td>RC 803 Cardiac</td>
<td>RC 812 Paediatric Imaging</td>
<td>SK 825 How to biopsy with US guidance</td>
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<td>SS 901 Abdominal Viscera</td>
<td>Standards and Audit Session</td>
<td>SS 903 Cardiac</td>
<td>SS 912 Paediatric</td>
<td>SS 914 Radiographers</td>
<td>SK 926 How to Biopsy with US Guidance</td>
<td>SK 927 Image-Guided Tumour Ablation</td>
<td>SS 905 Computer Applications</td>
<td>(p. 145)</td>
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<td>Cross-sectional pancreatic imaging and biomarkers</td>
<td>Assessment of radiologists-professional performance</td>
<td>Myocardial perfusion and coronary artery disease</td>
<td>Paediatric body and bones</td>
<td>Dose optimisation as daily challenge</td>
<td>Image-Guided Tumour Ablation</td>
<td>Computer-aided diagnosis</td>
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<td>(p. 153)</td>
<td>(p. 151)</td>
<td>Head and Neck</td>
<td>Musculoskeletal Imaging</td>
<td>Imaging: Inflammation/infectious disorders</td>
<td>(p. 61)</td>
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<td>12:45–14:15</td>
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<td>SY 20 GE Healthcare Nycomed Satellite Symposium</td>
<td>MSY 1 Philips Healthcare Mini Satellite Symposium</td>
<td>SK 1026 How to Biopsy with US Guidance</td>
<td>SK 1027 Image-Guided Tumour Ablation</td>
<td>13:00–14:45</td>
<td>MIR@ECR</td>
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<td>(p. 152)</td>
<td>(p. 134)</td>
<td>(p. 146)</td>
<td>(p. 147)</td>
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<td>Innovation and the future of radiology and radiologists</td>
<td>(p. 61)</td>
<td>(p. 140)</td>
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<td>Hot topics in magnetic resonance imaging</td>
<td>SK 1027 Image-Guided Tumour Ablation</td>
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<td>Pulmonary infections: the old and the new</td>
<td>Cone-beam imaging</td>
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<td>Hot topics in magnetic resonance imaging</td>
<td>Imaging: Inflammation/infectious disorders</td>
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**Technical Exhibition:** EXPO First Level (Gallery): 10:00–18:00

**Technical Exhibition:** EXPO Halls and EXPO Foyer D: 10:00–18:00
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<td>SS 1316 Oncologic Imaging: Rectal cancer imaging: the next step (p. 247)</td>
<td>EM 4 ESR meets Chile: Topics of ongoing radiological research from the Andes (p. 191)</td>
<td>CC 1321 Urogenital Imaging: The female pelvis (p. 192)</td>
<td>SS 1304 Chest CT: Topics in lung perfusion and pulmonary hypertension (p. 247)</td>
<td>SS 1309 Interventional Radiology: Skeletal and endocrinologic interventions (p. 248)</td>
<td>SS 1310 Musculoskeletal Imaging: Arthritis and metabolic bone disease (p. 248)</td>
<td>SS 1303 Cardiac Imaging: Follow-up of thermal ablation (part 1) (p. 194)</td>
<td>SS 1311 Neurology: Brain tumour imaging and therapy (p. 249)</td>
<td>SS 1302 Breast: How to get more from breast imaging modalities (p. 250)</td>
<td>SS 1307 Genitourinary: The bladder and below (p. 250)</td>
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<td>E³ 1420 Interactive Teaching Session: Common and uncommon errors in plain film and CT imaging of the chest: how to improve your performance (p. 193)</td>
<td>NH 14 New Horizons Session: Imaging of the mind (p. 193)</td>
<td>CC 1421 Urogenital Imaging: The male genital system (p. 193)</td>
<td>CC 1418 CLICK (Clinical Lessons for Imaging Core Knowledge): Never without Arteries: Angina, non-invasive myocardial ischemia (NIMI) and non-vascular causes of acute abdomen (p. 194)</td>
<td>CC 1419 Oncologic Imaging: Follow-up of Systemic and Local Therapies: Follow-up of thermal ablation (part 1) (p. 194)</td>
<td>RC 1410 Musculoskeletal Imaging: How I report (p. 194)</td>
<td>RC 1416 Oncologic Imaging: The essentials of lymph node imaging of solid tumours: what the radiologist needs to know (p. 194)</td>
<td>SF 14a Special Focus Session: Palliative interventional techniques in cancer (p. 195)</td>
<td>RC 1402 Breast: How I report (p. 195)</td>
<td>SF 14b Special Focus Session: Comprehensive CT cardiothoracic imaging: a new challenge for radiologists (p. 195)</td>
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<td>Chest</td>
<td>Making heterogenous HCC readings</td>
<td>Head and neck cancer battle the power of imaging studies</td>
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<td>Improving workflow efficiency and quality (p. 207)</td>
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<td>SS 1713 Physics in Radiology</td>
<td>SS 1703 Cardiac Biomarkers, tissue characterisation and remodelling</td>
<td>SS 1712 Paediatric Paediatric brain and renal imaging</td>
<td>SS 1714 Radiographers</td>
<td>SS 1706 Molecular Imaging Molecular imaging in cancer and degenerative diseases</td>
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<td>DWI in pancreatic and hepatobiliary diseases</td>
<td>Breast imaging and novel CT techniques</td>
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<td>Phenotypes in obstructive airway disease: how should I image, analyse and report?</td>
<td>Temporal bone: imaging the most common symptoms and signs</td>
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**Technical Exhibition: EXPO First Level (Gallery): 10:00–18:00**
Scaling relations between trabecular bone mass and 3D microstructure in two locations

Live Hashtag: #ECR2013A #B0012


Purpose: To investigate possible site differences of bone mass-macrostructure scaling relations that may be related to different loading conditions according to Wolff's law of bone remodeling.

Methods: Multidetector CT of 5 knees were harvested from human tibia. Eighty-eight specimens were taken from the femoral neck and 168 specimens from the greater trochanter. 3D micro-CT images were acquired, spatial resolution of 25 micrometer were obtained. Bone mass (BMC) of each

ESRF
New Horizons Sessions

Friday, March 8, 16:00–17:30, Room C
NH 7: Cartilage imaging

- Chairman's Introduction [A-149]
  V.N. Cassar-Pullicino; Oswestry/UK
- Sodium imaging [A-150]
  S. Trattnig; Vienna/AT
- dGEMRIC (delayed gadolinium-enhanced MR imaging of cartilage) [A-151]
  G. Welsch; Erlangen/DE
- Diffusion tensor imaging [A-152]
  C. Glaser; Munich/DE
- CEST (chemical exchange saturation transfer) [A-153]
  B. Schmitt; Vienna/AT
- Panel discussion: What are the envisaged future advances in these cartilage imaging techniques and can we expect to introduce them into clinical practice?

Saturday, March 9, 08:30–10:00, Room C
NH 8: MR/PET: a marriage made in heaven or hell?

- Chairman’s Introduction [A-207]
  B. Hamm; Berlin/DE
- MR/PET in neuroimaging: nuclear medicine [A-208]
  O. Sabri; Leipzig/DE
- MR/PET in neuroimaging: radiology [A-209]
  B.R. Rosen; Charlestown, MA/US
- MR/PET in oncologic imaging: nuclear medicine [A-210]
  O. Ratib; Geneva/CH
- MR/PET in oncologic imaging: radiology [A-211]
  H.-P. Schlemmer; Heidelberg/DE
- Panel discussion: What benefits and risks should we expect in terms of basic research, clinical service, and economics?

Sunday, March 10, 14:00–15:30, Room B
NH 14: Imaging of the mind

- Chairman’s introduction: New insights into the state of consciousness through neuroimaging [420]
  S. Sunaert; Leuven/BE
- Brain wiring: resting state fMRI [A-421]
  F. Barkhof; Amsterdam/NL
- fMRI in disorders of consciousness: diagnostic and legal challenges [A-422]
  C. Di Perri; Liège/BE
- fMRI of cognitive functions: discriminating normal aging, minimal cognitive impairment and Alzheimer’s disease [A-423]
  A. Falini; Milan/IT
- Panel discussion: New insights into the state of consciousness through neuroimaging. Where are we and where should we go?
State of the Art Symposia

Friday, March 8, 08:30–10:00, Room E1

SA 4: Diffusion-weighted imaging (DWI) of the abdomen

- Chairman’s Introduction [A-068]
  Y. Menu; Paris/FR
- DWI of the abdomen: a tutorial for beginners [A-069]
  H.C. Thoeny; Berne/CH
- Liver and pancreas: answering burning questions [A-070]
  F. Caseiro-Alves; Coimbra/PT
- DWI of abdominal lymph nodes: PET competitive or just pseudo? [A-071]
  S. Gourtsoyianni; London/UK
- Clinical cases

Saturday, March 9, 16:00–17:30, Room B

SA 11: Evaluation of response in haematological malignancy

- Chairman’s Introduction [A-298]
  E. de Kerviler; Paris/FR
- Opportunities and limitations of PET, CT and MRI answering the haematologist’s questions [A-299]
  T.C. Kwee; Utrecht/NL
- Evaluation of response in multiple myeloma [A-300]
  J. Hillengass; Heidelberg/DE
- Evaluation of response in lymphoma with PET/CT [A-301]
  S.F. Barrington; London/UK
- Panel discussion: Is it time for biomarker response criteria in haematological malignancies?

Sunday, March 10, 16:00–17:30, Room E2

SA 15: Imaging impingement syndromes

- Chairman’s Introduction [A-496]
  C.W.A. Pfirrmann; Zurich/CH
- Shoulder [A-497]
  P. Robinson; Leeds/UK
- Ankle [A-498]
  M. Maas; Amsterdam/NL
- Hip [A-499]
  K. Wörtler; Munich/DE
- Panel discussion: Form or function: is impingement a clinical or imaging diagnosis?
Special Focus Sessions

Friday, March 8, 08:30–10:00, Room F2
SF 4a: ‘MRI of the lung: to go?’

- Chairman’s introduction: ‘Apéritif’ [A-080]
  H. Kauczor; Heidelberg/DE
- ‘The sequence buffet’ [A-081]
  J.M. Wild; Sheffield/UK
- ‘Preparing your menu’ [A-082]
  J. Biederer; Heidelberg/DE
- ‘Bon appétit! Starters’: cystic fibrosis, pneumonia and pulmonary embolism [A-083]
  M.U. Puderbach; Heidelberg/DE
- ‘Bon appétit! Main course’: pulmonary and mediastinal neoplasms [A-084]
  E.J.R. van Beek; Edinburgh/UK
- Panel discussion: ‘Bon appétit! Dessert’: what are the benefits of MRI of the lung in clinical workflow and decision-making?

Friday, March 8, 08:30–10:00, Room Q
SF 4b: Justifying CT in paediatric radiology

- Chairman’s Introduction [A-105]
  C. Owens; London/UK
- How should CT be optimised? [A-106]
  W.A. Kalender; Erlangen/DE
- When, how, and why I perform CT [A-107]
  C. Owens; London/UK
- Why and when CT does not need to be performed [A-108]
  M. Claudon; Vandoeuvre-les-Nancy/FR
- Panel discussion: Do we have guidelines for paediatric CT? Do we have alternatives?

Friday, March 8, 16:00–17:30, Room F1
SF 7a: Radiographers and ultrasonography in Europe

- Chairmen’s Introduction [A-167]
  D. Pekarovic; Ljubljana/SI
  V. Vilgrain; Clichy/FR
- Levels of training and competencies across Europe [A-169]
  M. Stanton; Dublin/IE
- The role and impact of the radiographer conducted US in Portugal [A-169]
  R. Ribeiro; Lisbon/PT
- Evolution of radiography education for US in the Netherlands since 1990, and its influence on their role [A-170]
  G. Plug; Haarlem/NL
- Panel discussion: What are the challenges and barriers facing role extension?


Friday, March 8, 16:00–17:30, Room F2

**SF 7b: Imaging and radiotherapy: all you need to know**

- **Chairman's Introduction [A-171]**
  V. J. Goh; London/UK

- **Modern radiotherapy: what are the new technologies? [A-172]**
  V. Valentini; Rome/IT

- **PET/CT for radiotherapy planning: how does it assist IMRT? [A-173]**
  A. Loft; Copenhagen/DK

- **Response evaluation and treatment adaptation [A-174]**
  K. Haustermans; Leuven/BE

- **MR imaging biomarkers for response evaluation [A-175]**
  R. G. H. Beets-Tan; Maastricht/NL

- **Panel discussion: How can imaging improve outcomes in radiotherapy?**

Friday, March 8, 16:00–17:30, Room Q

**SF 7c: Imaging in intensive care patients**

- **Chairman's Introduction [A-193]**
  A. Palkó; Szeged/HU

- **Value of MRI for intensive care coma patients with unclear brain pathology [A-194]**
  P. C. Maly Sundgren; Lund/SE

- **Computed tomography of pathologic lung conditions complicating intensive care treatment [A-195]**
  C. M. Schaefer-Prokop; Amersfoort/NL

- **Point-of-care versus diagnostic ultrasound in the intensive care unit [A-196]**
  E. Danse; Brussels/BE

- **Imaging in polyTrauma [A-197]**
  U. Linsenmaier; Munich/DE

- **Panel discussion: What training and special skills are radiologists expected to have in order to work with intensive care units? How should we manage the clinical and technical challenges posed by this very specific environment?**

Saturday, March 9, 08:30–10:00, Room B

**SF 8a: Is diagnostic catheter angiography still useful in neuroimaging?**

- **Chairman's Introduction [A-203]**
  M. Essig; Erlangen/DE

- **What can we expect from vascular diagnostic procedures? [A-204]**
  R. Siemund; Lund/SE

- **Can non-invasive techniques as CTA and MRA replace catheter angio for diagnostic work-up? [A-205]**
  L. van den Hauwe; Brasschaat/BE

- **Diagnostic catheter angiography is not dead: current indications and advantages over the non-invasive techniques [A-206]**
  T. Engelhorn; Erlangen/DE

- **Panel discussion: The pros and cons of diagnostic catheter angiography in neuroimaging**

Saturday, March 9, 08:30–10:00, Room F2

**SF 8b: GI imaging: technological advances and clinical applications**

- **Chairman's Introduction [A-229]**
  S. A. Jackson; Plymouth/UK

- **CEUS of the bowel wall: when and how [A-230]**
  F. Maccioni; Rome/IT

- **Dual-energy (spectral) CT: GI applications [A-231]**
  P. Rogalla; Toronto, ON/CA

- **MR imaging of GI tract motility [A-232]**
  S. A. Taylor; London/UK

- **Panel discussion: When should we integrate these technological advances into our routine practice?**

Saturday, March 9, 16:00–17:30, Room F1

**SF 11: Adults with congenital heart disease (GUCH)**

- **Chairman's introduction: Why should a radiologist gather information on GUCH patients? [A-321]**
  M. Gutberlet; Leipzig/DE

- **A list of typical surgical procedures: the top ten in GUCH [A-322]**
  M. Hübner; Zurich/CH

- **'Adults are not just big children': differences between children and adults [A-323]**
  A. M. Taylor; London/UK

- **Which modality, for which patient? MRI or CT, that's the question [A-324]**
  J. Bremerich; Basle/CH

- **Panel discussion: Can we now get all the information we need to treat GUCH patients, non-invasively?**
Special Focus Sessions

Sunday, March 10, 08:30–10:00, Room F1
SF 12: Quantitative imaging biomarkers in cardiac radiology

- Chairman’s Introduction [A-368]
  A. van der Lugt; Rotterdam/NL
- Imaging biomarkers [A-369]
  J.-P. Vallée; Geneva/CH
- Imaging biomarkers for myocardial function [A-370]
  J. Bogaert; Leuven/BE
- Imaging biomarkers of myocardial viability [A-371]
  P. Croisille; Saint-Etienne/FR
- Imaging biomarkers of myocardial ischaemia [A-372]
  L. Natale; Sesto Fiorentino/IT
- Panel discussion: How should we implement quantitative biomarkers in clinical practice?

Sunday, March 10, 14:00–15:30, Room F1
SF 14a: Palliative interventional techniques in cancer

- Chairman’s Introduction [A-441]
  K.A. Hausegger; Klagenfurt/AT
- Cementoplasty of lytic bone metastasis [A-442]
  A. Gangi; Strasbourg/FR
- Pleural drainage, pleurodesis [A-443]
  F. Gleeson; Oxford/UK
- Percutaneous nephrostomy (PCN) and ureteral stenting [A-444]
  F. Orsi; Milan/IT
- Biliary procedures [A-445]
  M. Krokidis; Cambridge/UK
- Panel discussion: How invasive can palliation be? When to say no to palliative treatment?

Sunday, March 10, 14:00–15:30, Room G/H
SF 14b: Comprehensive CT cardiothoracic imaging: a new challenge for radiologists

- Chairman’s Introduction [A-449]
  L. Bonomo; Rome/IT
- How to optimise integrated cardiothoracic imaging with CT [A-450]
  U.J. Schoepf; Charleston, SC/US
- Coronary artery imaging from a chest CT examination: when and how [A-451]
  R. Marano; Rome/IT
- Cardiopulmonary functional imaging from a chest CT examination: when and how [A-452]
  E.J.R. van Beek; Edinburgh/UK
- Panel discussion: Is a single CT scan technique and protocol feasible for all the cardiothoracic problems?

Sunday, March 10, 14:00–15:30, Room Z
SF 14c: Advances in forensic radiology

- Chairman’s Introduction [A-471]
  G. Guglielmi; Foggia/IT
- Imaging in forensic medicine [A-472]
  M. Thali; Zurich/CH
- Advances in post-mortem CT angiography [A-473]
  S. Grabherr; Lausanne/CH
- Virtual anthropology and forensic identification using MDCT [A-474]
  F. Dedouit; Toulouse/FR
- Forensic MR imaging [A-475]
  T. Ruder; Zurich/CH
- Panel discussion: Which imaging technique for which forensic scenario?

Sunday, March 10, 16:00–17:30, Room F1
SF 15a: Traumatic brain injury

- Chairman’s Introduction [A-500]
  A. Rovira-Cañellas; Barcelona/ES
- Acute brain trauma: CT vs MRI [A-501]
  M. Muto; Naples/IT
- New imaging techniques in the detection and quantification of brain damage [A-502]
  S. Sunaert; Leuven/BE
- Advanced imaging of brain trauma: outcome prediction [A-503]
  D. Galanaud; Paris/FR
- Cerebrovascular trauma: diagnosis and therapy [A-504]
  T. Krings; Toronto, ON/CA
- Panel discussion: Role of neuroimaging in traumatic brain injury in 2013

Sunday, March 10, 16:00–17:30, Room F2
SF 15b: Digital breast tomosynthesis

- Chairman’s Introduction [A-505]
  G. Gennaro; Padua/IT
- Optimisation of image acquisition and reconstruction in DBT [A-506]
  M.J. Yaffe; Toronto, ON/CA
- Current role of DBT in diagnostic imaging [A-507]
  S. Zackrisson; Malmö/SE
- Clinical aspects of computer aided detection and diagnosis in DBT [A-508]
  H.-P. Chan; Ann Arbor, MI/US
- Panel discussion: Digital breast tomosynthesis: replacing or just supporting standard mammography?
Special Focus Sessions

**Monday, March 11, 08:30–10:00, Room B**

**SF 16a: My most beautiful mistakes in paediatric radiology**

- Chairman's Introduction [A-530]
  P. Tomà; Rome/IT
- Abdomen [A-531]
  S.G.F. Robben; Maastricht/NL
- CNS [A-532]
  B. Bernardi; Rome/IT
- Musculoskeletal [A-533]
  K. Rosendahl; Bergen/NO
- Panel discussion: How have you changed or improved yourself after recognising your mistakes?

**Monday, March 11, 08:30–10:00, Room N/O**

**SF 16b: Head and neck cancer battle: the power of imaging studies**

- Chairman's Introduction [A-568]
  V. Vandecaveye; Leuven/BE
- Building blocks for locoregional staging of head and neck tumours [A-569]
  F.A. Pameijer; Utrecht/NL
- Detection of tumour recurrence in head and neck cancer: challenges and pitfalls [A-570]
  M. Becker; Geneva/CH
- Locoregional treatment failure in head and neck cancer: causes and clinical implications [A-571]
  R. Maroldi; Brescia/IT
  P. Nicolai; Brescia/IT
- Panel discussion: Advanced imaging in clinical practice: how does it help the patient?
Special Focus Sessions

Monday, March 11, 08:30–10:00, Room L/M
SF 16c: Making homogeneous HCC readings

- Chairman's Introduction [A-563]
  C. Bartolozzi; Pisa/IT
- HCC diagnosis: how to report 'typical' findings [A-564]
  C. Ayuso; Barcelona/ES
- How to interpret and report 'atypical' findings [A-565]
  C.J. Zech; Basle/CH
- How to evaluate tumour response to therapies [A-566]
  J. Ricke; Magdeburg/DE
- Information technology: the practical impact on the management of HCC patients [A-567]
  I. Bargellini; Pisa/IT
- Panel discussion: Case-based discussion: a practical demonstration of how interpretation and reporting affect patient management

Monday, March 11, 16:00–17:30, Room F1
SF 19: Tablet computers in radiology: friend or foe?

- Chairman's Introduction [A-605]
  E. Neri; Pisa/IT
- Tablet computers: a technical overview [A-606]
  J. Fernandez-Bayó; Sabadell/ES
- Radiological features of the tablet computer [A-607]
  L. Faggioni; Pisa/IT
- Reading DICOM images on the tablet [A-608]
  O. Ratib; Geneva/CH
- Mobile teleradiology with tablet computers: a critical appraisal [A-609]
  E.R. Ranschaert; 's-Hertogenbosch/NL
- Panel discussion: Are we ready and confident enough to use tablet computers in clinical practice? How and when?
Professional Challenges Sessions

Thursday, March 7, 16:00–17:30, Room F1
PC 3: Bringing radiology to medical undergraduates

- Chairman's introduction: why does it matter? [A-022]  
  S.J. Golding; Oxford/UK
- Establishing a radiological presence in the undergraduate curriculum [A-023]  
  R.N. Gibson; Melbourne, VIC/AU
- Finding the time and resources in the radiology department [A-024]  
  J.L. del Cura; Bilbao/ES
- Involving the undergraduate with the radiology department [A-025]  
  K. Verstraete; Gent/BE
- How to ensure teachers are suitably trained [A-026]  
  E. Szabó; Szeged/HU
- Panel discussion: What needs to be done to overcome the constraints on radiologists?

Friday, March 8, 08:30–10:00, Room P
PC 4: The visibility of the radiologist

- Chairman's introduction [A-100]  
  J.A. Reekers; Amsterdam/NL
- How to optimise the visibility of the radiology department [A-101]  
  J.A. Reekers; Amsterdam/NL
- Start early with radiological visibility [A-102]  
  M. Maas; Amsterdam/NL
- Clinical radiology puts you in the spotlight: taking over the clinical responsibility [A-103]  
  E. de Kerviler; Paris/FR
- Radiology in the 21st century: time to come out of the dark? [A-104]  
  A. Adam; London/UK
- Panel discussion: Should we improve the visibility of the radiologist? And if yes, how?

Saturday, March 9, 16:00–17:30, Room F2
PC 11: Personalised radiology

- Chairman's introduction [A-325]  
  G.P. Krestin; Rotterdam/NL
- Personalised medicine: hope or hype? [A-326]  
  O. Golubnitschaja; Bonn/DE
- Imaging for disease prediction [A-327]  
  M. Vernooij; Rotterdam/NL
- Molecular imaging: a solution for personalised diagnosis and treatment? [A-328]  
  F.M.A. Kiessling; Aachen/DE
- Role of imaging in personalised therapy monitoring [A-329]  
  A.R. Padhani; Northwood/UK
- Panel discussion: Is imaging providing an added value to the ‘omics’ of personalised medicine?

Sunday, March 10, 08:30–10:00, Room Z
PC 12: Legal matters related to multimodality techniques

- Chairman's introduction [A-398]  
  K. Åhlström Riklund; Umea/SE
- Radiological legal matters in eastern Europe [A-399]  
  M. Studniarek; Gdansk/PL
- Legal matters in nuclear medicine [A-400]  
  G.K. von Schulthess; Zurich/CH
- Legal matters in Scandinavia [A-401]  
  K. Åhlström Riklund; Umea/SE
- International, regional, national and local framework requirements [A-402]  
  A. Perkins; Nottingham/UK
- Panel discussion: A discussion with questions from the audience about the differences across Europe

Sunday, March 10, 10:30–12:00, Studio 2013
PC 13: The radiologist, the clinician and the patient: an impossible trio?

Chairman: C.D. Claussen; Tübingen/DE
Moderator: W. Wagner; Vienna/AT

The aim of this session is to initiate an open and frank discussion among different stakeholders about the current role of the radiologist in relation to the patient, other clinicians and the public. Which procedures are efficient? Which are inefficient? What should be changed in future and what is manageable during clinical routine? As the participants represent various disciplines, we hope to come to a realistic outlook.

Participants:
- A. Adam; London/UK (Radiologist)
- G. Marckmann; Munich/DE (Medical Ethicist)
- M. Peck-Radosavljevic; Vienna/AT (Internal Medicine Doctor)
- J.A. Reekers; Amsterdam/NL (Radiologist)
Multidisciplinary Sessions
Managing Patients with Cancer

Thursday, March 7, 16:00–17:30, Room E2
MS 3: Colorectal liver metastases

- Chairman's introduction [A-017]
  V. Vilgrain; Clichy/FR
- Role of imaging in the pretreatment assessment [A-018]
  V. Vilgrain; Clichy/FR
- Surgical resection of liver metastases: when and how [A-019]
  J. Belghiti; Clichy/FR
- Chemotherapy and novel therapy in colorectal liver metastases: rationale, indications and results [A-020]
  S. Faivre; Clichy/FR
- Role of image-guided treatment in colorectal liver metastases [A-021]
  M. Abdel Rehim; Clichy/FR
- Case presentation and discussion

Friday, March 8, 08:30–10:00, Room F1
MS 4: Hepatocellular carcinoma

- Chairman's introduction [A-075]
  B. Sangro; Pamplona/ES
- Abdominal radiology [A-076]
  A. Benito; Pamplona/ES
- Interventional radiology [A-077]
  J.I. Bilbao; Pamplona/ES
- Surgery [A-078]
  F. Pardo; Pamplona/ES
- Hepatology/oncology [A-079]
  B. Sangro; Pamplona/ES
- Case presentation and discussion

Saturday, March 9, 16:00–17:30, Room E2
MS 11: Cholangiocarcinoma

- Chairman's introduction [A-316]
  B. Hamm; Berlin/DE
- Surgery of hilar and extrahepatic cholangiocarcinoma [A-317]
  P. Neuhaus; Berlin/DE
- Radiology – diagnostics and portal vein embolisation in hilar and extrahepatic cholangiocarcinoma [A-318]
  T. Denecke; Berlin/DE
- Medical treatment of cholangiocarcinomas [A-319]
  H. Riess; Berlin/DE
- Radiology – diagnostics and image guided therapies in intrahepatic cholangiocarcinomas [A-320]
  B. Gebauer; Berlin/DE
- Case presentation (part 1): hilar cholangiocarcinoma
- Case presentation (part 2): CCC multimodal treatment
Categorical Courses

CLICK (Clinical Lessons for Imaging Core Knowledge): Never without Arteries

Saturday, March 9, 08:30–10:00, Room D1
CC 818: How old are you in reality?
Vascular age and clinical events

Moderator: L. Lonn; Copenhagen/DK
A. Clinical considerations [A-212]
   E. Minar; Vienna/AT
B. Imaging techniques and typical findings [A-213]
   H.J. Lamb; Leiden/NL
C. Interactive case discussion: how to deal with the results?
   [A-214]
   A. van der Lugt; Rotterdam/NL

Saturday, March 9, 16:00–17:30, Room D1
CC 1118: Stroke

Moderator: M.M. Thurnher; Vienna/AT
A. Clinical considerations [A-306]
   P.M. Parizel; Antwerp/BE
B. Imaging techniques and typical findings [A-307]
   J. Vynazal; Prague/CZ
C. Interactive case discussion: what is next after diffusion and perfusion?
   [A-308]
   A. Dörfler; Erlangen/DE

Sunday, March 10, 08:30–10:00, Room D1
CC 1218: Chest pain: vascular non-cardiac causes

Moderator: E. Brountzos; Athens/GR
A. Clinical considerations [A-355]
   R. Iezzi; Rome/IT
B. Imaging techniques and typical findings [A-356]
   F. Wolf; Vienna/AT
C. Interactive case discussion: what is really important?
   [A-357]
   T.R.C. Johnson; Munich/DE

Sunday, March 10, 14:00–15:30, Room D1
CC 1418: Angina, non-occlusive mesenteric ischaemia (NOMI) and friends: vascular causes of acute abdomen

Moderator: O. Chan; London/UK
A. Clinical considerations [A-428]
   P. Rogalla; Toronto, ON/CA
B. Imaging techniques and typical findings [A-429]
   M. Prokop; Nijmegen/NL
C. Interactive case discussion: how to proceed?
   [A-430]
   A. Palkó; Szeged/HU

Sunday, March 10, 16:00–17:30, Room D1
CC 1518: When every step counts: imaging and management of peripheral arterial occlusive disease (PAOD)

Moderator: J.F.M. Meaney; Dublin/IE
A. Clinical considerations [A-486]
   M. Schillinger; Vienna/AT
B. Imaging techniques and typical findings [A-487]
   T. Leiner; Utrecht/NL
C. Interactive case discussion: how to deal with the results?
   Typical cases, pitfalls, and what is next?
   [A-488]
   L.P. Lawler; Dublin/IE

Monday, March 11, 08:30–10:00, Room D1
CC 1618: The fast and the furious: vascular trauma resulting from traffic accidents

Moderator: U. Linsenmaier; Munich/DE
A. Clinical considerations [A-538]
   H. Hoppe; Berne/CH
B. Imaging techniques and typical findings [A-539]
   H. Alkadhi; Zurich/CH
C. Interactive case discussion [A-540]
   R. Morgan; London/UK

= Interactive session with electronic voting/self assessment
Categorical Courses
Oncologic Imaging: Follow-up of Systemic and Local Therapies

Friday, March 8, 16:00–17:30, Room D2
CC 719: Imaging after systemic therapies: the standards
Moderator: E.L. van Persijn van Meerten; Leiden/NL
A. RECIST criteria [A-157]
  Y. Menu; Paris/FR
B. PERCIST: evolving considerations for PET response criteria in solid tumours [A-158]
  T.F. Hany; Zurich/CH
C. Evaluation of brain tumours [A-159]
  C. Majós; L’Hospitalet de Llobregat/ES

Saturday, March 9, 08:30–10:00, Room D2
CC 819: Imaging after systemic therapies: advanced techniques
Moderator: D.-M. Koh; Sutton/UK
A. What can we expect from biomarkers [A-215]
  B. Van Beers; Clichy/FR
B. MRI biomarkers: from acquisition to post-processing [A-216]
  O. Lucidarme; Paris/FR
C. Assessing the precision and accuracy of biomarker imaging: is it reproducible? [A-217]
  C.B. Sirlin; San Diego, CA/US

Sunday, March 10, 08:30–10:00, Room D2
CC 1219: Assessing HCC response
Moderator: R. Lencioni; Pisa/IT
A. Systemic therapies [A-358]
  V. Vilgrain; Clichy/FR
B. Endovascular therapies [A-359]
  R. Salem; Chicago, IL/US
C. Ablative therapies [A-360]
  C. Ayuso; Barcelona/ES

Sunday, March 10, 14:00–15:30, Room D2
CC 1419: Follow-up of thermal ablation (part I)
Moderator: W. Prevoo; Amsterdam/NL
A. The zone of cell death and collateral phenomena on cross-sectional imaging: from histopathology to the standardisation of terms [A-431]
  A. Denys; Lausanne/CH
  D. De andreis; Villejuif/FR
C. Everyday practice: MR and CT for evaluating response to thermal ablation [A-433]
  C. Dromain; Villejuif/FR

Sunday, March 10, 16:00–17:30, Room D2
CC 1519: Follow-up of thermal ablation (part II)
Moderator: P.L. Pereira; Heilbronn/DE
A. Follow-up imaging of thermal ablative therapies for lung tumours [A-489]
  A.R. Gillams; London/UK
B. Follow-up imaging of percutaneous local treatment of bone tumours [A-490]
  F. Deschamps; Villejuif/FR
C. Follow-up imaging of thermal ablative therapies for kidney tumours [A-491]
  D.J. Breen; Southampton/UK

Monday, March 11, 08:30–10:00, Room D2
CC 1619: Follow-up of local treatments of breast cancer
Moderator: M.H. Fuchsjäger; Graz/AT
A. MRI-guided HIFU therapies in the breast [A-541]
  M. Sklair-Levy; Tel Aviv/IL
B. Pre- and post-imaging appearance of breast lesion excision system (BLES) lesions [A-542]
  S. Allen; Sutton/UK
C. Common features and pitfalls in imaging the treated breast [A-543]
  J. Camps Herrero; Valencia/ES

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  S. Allen; Sutton/UK
C. Common features and pitfalls in imaging the treated breast [A-543]
  J. Camps Herrero; Valencia/ES
Saturday, March 9, 16:00–17:30, Room C
CC 1121: Stones: diagnosis and intervention

Moderator: N.C. Cowan; Oxford/UK
A. Imaging patients with renal colic [A-302]
G. Heinz-Peer; St. Pölten/AT
B. Percutaneous treatment of renal stones [A-303]
S. Moussa; Edinburgh/UK
C. Intervention in ureteral obstruction and ureteral trauma [A-304]
A. Magnusson; Uppsala/SE
D. Interactive case discussion [A-305]
N.C. Cowan; Oxford/UK

Sunday, March 10, 08:30–10:00, Room C
CC 1221: Retroperitoneal anatomy, variants and diseases

Moderator: U.G. Mueller-Lisse; Munich/DE
A. Retroperitoneal anatomy: an embryology based approach [A-351]
F.M. Danza; Rome/IT
B. Anatomical variants and benign diseases [A-352]
S. Merran; Paris/FR
C. Malignant tumours [A-353]
R.H. Oyen; Leuven/BE
D. Interactive case discussion [A-354]
U.G. Mueller-Lisse; Munich/DE

Sunday, March 10, 10:30–12:00, Room C
CC 1321: The female pelvis

Moderator: E. Sala; New York, NY/US
A. Imaging congenital anomalies of the female genital system [A-409]
K. Kinkel; Chêne-Bougeries/CH
B. Benign ovarian masses [A-410]
R. Forstner; Salzburg/AT
C. Imaging the infertile couple [A-411]
J. McHugo; Birmingham/UK
D. Interactive case discussion [A-412]
E. Sala; New York, NY/US

Sunday, March 10, 14:00–15:30, Room C
CC 1421: The male genital system

Moderator: J.O. Barentsz; Nijmegen/NL
A. Imaging of prostate cancer: an update [A-424]
J.J. Fütterer; Nijmegen/NL
B. Scrotal tumours [A-425]
P.S. Sidhu; London/UK
C. The penis [A-426]
M. Bertolotto; Trieste/IT
D. Interactive case discussion [A-427]
J.O. Barentsz; Nijmegen/NL

Sunday, March 10, 16:00–17:30, Room C
CC 1521: Paediatrics

Moderator: M. Claudon; Vandoeuvre-les-Nancy/FR
A. Imaging strategies for children: urinary tract infection and vesico-ureteral reflux [A-482]
M. Riccabona; Graz/AT
B. Paediatric adrenal tumours [A-483]
P.-H. Vivier; Rouen/FR
C. Prenatal detection of GU diseases [A-484]
F.E. Avni; Lille/FR
D. Interactive case discussion [A-485]
M. Claudon; Vandoeuvre-les-Nancy/FR

Monday, March 11, 08:30–10:00, Room C
CC 1621: The usual, the unusual and the dangerous

Moderator: S.K. Morcos; Sheffield/UK
A. Imaging of renal Trauma [A-534]
V. Logager; Copenhagen/DK
B. Postoperative anatomy and complications after GU interventions [A-535]
H.C. Thoeny; Berne/CH
C. GU complications in patients with spinal cord damage [A-536]
S. Agarwal; Wrexham/UK
D. Interactive case discussion [A-537]
S.K. Morcos; Sheffield/UK

= Interactive session with electronic voting/self assessment
Mini Courses

Organs from A to Z: Heart

**Thursday, March 7, 16:00–17:30, Room L/M**

**MC 322: Technical and anatomical fundamentals for imaging the heart**

**Moderator:** A. de Roos; Leiden/NL

A. **Anatomy:** too many details in cardiac imaging? [A-036]
   A.J.B.S Madureira; Porto/PT

B. **Examination protocols for imaging the heart: CT** [A-037]
   H. Alkadhi; Zurich/CH

C. **Examination protocols for imaging the heart: MRI**
   [A-038]
   N.L. Kelekis; Athens/GR
   • **Interactive case discussion** [A-039]
   A. de Roos; Leiden/NL

**Friday, March 8, 08:30–10:00, Room L/M**

**MC 422: Non-ischaemic heart disease**

**Moderator:** V.E. Sinitsyn; Moscow/RU

A. **Congenital heart disease** [A-091]
   M. Gutberlet; Leipzig/DE

B. **Valvular disease** [A-092]
   J. Bogaert; Leuven/BE

C. **Cardiomyopathies** [A-093]
   P. Sipola; Kuopio/FI
   • **Interactive case discussion** [A-094]
   V.E. Sinitsyn; Moscow/RU

**Friday, March 8, 16:00–17:30, Room L/M**

**MC 722: Ischaemic heart disease**

**Moderator:** C. Catalano; Rome/IT

A. **Imaging of the coronary arteries: the Holy Grail** [A-182]
   G. Roditi; Glasgow/UK

B. **The ischaemic myocardium: what to do?** [A-183]
   C. Loewe; Vienna/AT

C. **The ischaemic heart after treatment: still alive?** [A-184]
   G. Bastarrika; Pamplona/ES
   • **Interactive case discussion** [A-185]
   C. Catalano; Rome/IT

Controversies in Breast Imaging

**Friday, March 8, 08:30–10:00, Room D1**

**MC 423: Overdiagnosis from screening mammography: should we care about it?**

**Moderator:** T.H. Helbich; Vienna/AT

**Teaser:** H.J. de Koning; Rotterdam/NL

A. **The risk of overdiagnosis from screening mammography** [A-062]
   E. Paci; Florence/IT

B. **How breast radiologists should control the risk of overdiagnosis** [A-063]
   U. Bick; Berlin/DE
   • **Discussion** [A-064]
   T.H. Helbich; Vienna/AT
   H.J. de Koning; Rotterdam/NL

**Friday, March 8, 14:00–15:30, Room D1**

**MC 623: Preoperative MRI in newly diagnosed breast cancer: to do or not to do?**

**Moderator:** F. Sardanelli; Milan/IT

**Teaser:** N. Houssami; Sydney/AU

A. **Why we should do preoperative MRI** [A-128]
   W.A. Kaiser; Jena/DE

B. **Reasons not to do preoperative MRI** [A-129]
   M.G. Wallis; Cambridge/UK
   • **Discussion** [A-130]
   F. Sardanelli; Milan/IT
   N. Houssami; Sydney/AU

**Friday, March 8, 16:00–17:30, Room D1**

**MC 723: Should we add ultrasound to mammographic screening of dense breasts?**

**Moderator:** F.J. Gilbert; Cambridge/UK

**Teaser:** A. Tardivon; Paris/FR

A. **We can reduce the interval cancer rate** [A-154]
   W. Berg; Pittsburgh, PA/US

B. **Do we have enough radiologists to do it? Alternatives to ultrasound to reduce interval cancers** [A-155]
   A. Frigerio; Turin/IT
   • **Discussion** [A-156]
   F.J. Gilbert; Cambridge/UK
   A. Tardivon; Paris/FR

= Interactive session with electronic voting/self assessment
Mini Courses

The Beauty of Basic Knowledge:
Musculoskeletal Imaging

**Thursday, March 7, 12:30–13:30, Room P**
MC 25A: Trauma [A-002]
A. Kassarjian; Majadahonda/ES

**Friday, March 8, 12:30–13:30, Room P**
MC 25B: Degenerative disorders [A-125]
T.M. Link; San Francisco, CA/US

**Saturday, March 9, 12:30–13:30, Room P**
MC 25C: Inflammatory/infectious disorders [A-275]
V.N. Cassar-Pullicino; Oswestry/UK

**Sunday, March 10, 12:30–13:30, Room P**
MC 25D: Neoplastic/non-neoplastic lesions [A-417]
F.M.H.M. Vanhoenacker; Antwerp/BE

**Monday, March 11, 12:30–13:30, Room P**
MC 25E: Metabolic/endocrine disease [A-589]
J. Freyschmidt; Bremen/DE

The Beauty of Basic Knowledge:
Head and Neck

**Thursday, March 7, 12:30–13:30, Room N/O**
MC 24A: A taste of the oral cavity and salivary glands [A-001]
A. Borges; Lisbon/PT

**Friday, March 8, 12:30–13:30, Room Q**
MC 24B: The infrahyoid neck and lymph nodes [A-126]
M.G. Mack; Munich/DE

**Saturday, March 9, 12:30–13:30, Room N/O**
MC 24C: Main pipelines of the neck: pharynx and larynx [A-274]
M. Becker; Geneva/CH

**Sunday, March 10, 12:30–13:30, Room Q**
MC 24D: The suprahypoid neck: anatomy and diagnostic algorithm of the neck mass [A-418]
A. Trojanowska; Lublin/PL

**Monday, March 11, 12:30–13:30, Room N/O**
MC 24E: Temporal bone: so beautiful, yet so complicated [A-588]
B. De Foer; Antwerp/BE
Mini Courses

Joint Course of ESR and RSNA (Radiological Society of North America)

Friday, March 8, 08:30–10:00, Room I/K
MC 428: Essentials in oncologic imaging: what radiologists need to know (part 1)

Moderator: D.M. Panicek; New York, NY/US
A. Principles of oncologic imaging and reporting [A-088]
   D.M. Panicek; New York, NY/US
B. Lung cancers (primary, metastases) [A-089]
   C.J. Herold; Vienna/AT
C. Colon cancer [A-090]
   R.M. Gore; Evanston, IL/US
- Questions

Friday, March 8, 10:30–12:00, Room I/K
MC 528: Essentials in oncologic imaging: what radiologists need to know (part 2)

Moderator: H. Hricak; New York, NY/US
A. Pancreatic cancer [A-122]
   F. Caseiro-Alves; Coimbra/PT
B. Kidney cancer [A-123]
   E.K. Fishman; Baltimore, MD/US
C. Ovarian cancer [A-124]
   H. Hricak; New York, NY/US
- Questions

Friday, March 8, 14:00–15:30, Room I/K
MC 628: Essentials in oncologic imaging: what radiologists need to know (part 3)

Moderator: Y. Menu; Paris/FR
A. Oncologic imaging: terminology, definitions and buzzwords [A-134]
   Y. Menu; Paris/FR
B. Liver cancers (primary, metastases) [A-135]
   R.L. Baron; Chicago, IL/US
C. Prostate cancer [A-136]
   J.O. Barentsz; Nijmegen/NL
- Questions

Friday, March 8, 16:00–17:30, Room I/K
MC 728: Essentials in oncologic imaging: what radiologists need to know (part 4)

Moderator: M.F. Reiser; Munich/DE
A. Lymphoma [A-179]
   H. Schoder; New York, NY/US
B. Musculoskeletal neoplasms [A-180]
   M.F. Reiser; Munich/DE
C. Chemo- and radiation therapy-induced toxicity [A-181]
   H.-U. Kauczor; Heidelberg/DE
- Questions

= Interactive session with electronic voting/self assessment
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<td>Thursday, March 7</td>
<td>10:30–12:00</td>
<td>Room E2</td>
<td>SS 101a: Acute bowel diseases: challenges and solutions [B-0051 – B-0060]</td>
<td>Oslo/NO</td>
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<td><strong>Moderators:</strong> J.B. Dormagen; Oslo/NO</td>
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<td>S. Leschka; St. Gallen/CH</td>
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<td>Thursday, March 7</td>
<td>10:30–12:00</td>
<td>Room I/K</td>
<td>SS 101b: Liver fibrosis and cirrhosis: elastography and biomarkers [B-0091 – B-0100]</td>
<td>Innsbruck/AT</td>
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<td><strong>Moderators:</strong> R. Faschingbauer; Innsbruck/AT</td>
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<td>T.J. Kroenecke; Berlin/DE</td>
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<td>Thursday, March 7</td>
<td>14:00–15:30</td>
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<td>SS 201a: Bowel imaging: protocol optimisation and intervention [B-0190 – B-0199]</td>
<td>Rome/IT</td>
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<td>P. Popovic; Ljubljana/SI</td>
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<td>Thursday, March 7</td>
<td>14:00–15:30</td>
<td>Room I/K</td>
<td>SS 201b: Hepatocellular carcinoma: diagnosis and management [B-0230 – B-0239]</td>
<td>Palermo/IT</td>
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<td>M. Bruegel; Munich/DE</td>
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<td>Thursday, March 7</td>
<td>16:00–17:30</td>
<td>Room C</td>
<td>RC 301: Staging and restaging of rectal and anal cancer</td>
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<td><strong>Chairman's introduction [A-007]</strong></td>
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<td>R.G.H. Beets-Tan; Maastricht/NL</td>
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<td>A. Local staging of anal and rectal cancer and impact on initial therapeutic strategy [A-008]</td>
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<td>S. Gourtsoyianni; London/UK</td>
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<td>B. Assessment of rectal cancer response [A-009]</td>
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<td>L. Curvo-Semedo; Coimbra/PT</td>
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<td>C. Assessment of anal cancer response [A-010]</td>
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<td>V.J. Goh; London/UK</td>
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<td>• Panel discussion: What clinicians expect from us in rectal and anal cancer staging and re-staging? How should we image patients?</td>
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<td>Friday, March 8</td>
<td>08:30–10:00</td>
<td>Room A</td>
<td>RC 401: Pitfalls in interpretation of pancreatic imaging</td>
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<td><strong>Moderator:</strong> H.-J. Brambs; Ulm/DE</td>
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<td>A. Pancreatic cancer or pancreatitis? [A-055]</td>
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<td>B.J. Op de Beeck; Antwerp/BE</td>
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<td>B. How can we differentiate cystic neoplasms from pseudocysts? [A-056]</td>
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<td>T. Denecke; Berlin/DE</td>
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<td>C. How to manage incidental findings [A-057]</td>
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<td>C. Triantopoulou; Athens/GR</td>
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Refresher Courses / Scientific Sessions
Abdominal and Gastrointestinal

Monday, March 11, 08:30–10:00, Room E1
RC 1601a: Diagnosis and staging of esophageal cancer [LIVE]

- Chairman's introduction [A-544]
  Z. Tarján; Budapest/HU
- A. Diagnosis [A-545]
  M. Krokidis; Cambridge/UK
- B. Staging [A-546]
  V. Válek; Brno/CZ
- C. Treatment response [A-547]
  B. Mahon; Birmingham/UK
- Panel discussion: Cross-sectional techniques: developing an integrated imaging algorithm in oesophageal cancer

Monday, March 11, 08:30–10:00, Room F1
RC 1601b: Abdominal MRI: standard and advanced protocols in clinical settings [LIVE]

Moderator: M.A. Patak; Zurich/CH
- A. Fistula in ano [A-552]
  A. Gupta; London/UK
- B. Pelvic floor disease [A-553]
  M. Bazot; Paris/FR
- C. Suspected biliary tumour [A-554]
  C. Matos; Brussels/BE

Monday, March 11, 10:30–12:00, Room E2
SS 1701a: CT/MR colonography: technical issues and clinical studies [B-0789 – B-0798] [ADV]

Moderators: D. Cano; Pamplona/ES
D.Z. Saranovic; Belgrade/RS

Monday, March 11, 10:30–12:00, Room I/K
SS 1701b: DWI in pancreatic and hepatobiliary diseases [B-0829 – B-0838] [ADV]

Moderators: G.J. Munneke; London/UK
D. Weishaupt; Zurich/CH

Monday, March 11, 14:00–15:30, Room E2
SS 1801a: Colorectal cancer: diagnostic biomarkers and response assessment [B-0939 – B-0948] [ADV]

Moderators: A. Filippone; Chieti/IT
J. Husty; Brno/CZ

Monday, March 11, 14:00–15:30, Room I/K
SS 1801b: Liver volume, function and focal lesions [B-0979 – B-0988] [ADV]

Moderators: B.I. Choi; Seoul/KR
C. Nyhsen; Sunderland/UK

Monday, March 11, 16:00–17:30, Room C
RC 1901: Cross-sectional imaging of colitis [ALL]

- Chairman's introduction [A-590]
  S.A. Taylor; London/UK
  S. Schmidt; Lausanne/CH
- B. Differentiating between the causes of colitis [A-592]
  B. Gallix; Montpellier/FR
- C. The role of cross-sectional imaging in colonic inflammatory bowel disease [A-593]
  J. Rimola; Barcelona/ES
- Panel discussion: The role of cross-sectional imaging in the diagnosis and follow-up of colitis
Refresher Courses / Scientific Sessions

**Thursday, March 7, 10:30–12:00, Room F2**

**SS 102: Breast MRI: improving accuracy and tissue characterisation**
[B-0071 – B-0080]  
**Moderators:** R. Schulz-Wendtland; Erlangen/DE  
M. Telesca; Rome/IT

**Thursday, March 7, 14:00–15:30, Room F2**

**SS 202: Improvements in preoperative staging of breast cancer**  
[B-0210 – B-0219]  
**Moderators:** R.A. Kubik-Huch; Baden/CH  
A. Zytoon; Shebin El-Kom/EG

**Friday, March 8, 10:30–12:00, Room F2**

**SS 502: Elastography and other advances in breast ultrasound**  
[B-0330 – B-0339]  
**Moderators:** D. Djilas-Ivanovic; Sremska Kamenica/RS  
P. Skaane; Oslo/NO

**Friday, March 8, 14:00–15:30, Room F2**

**SS 602: Breast imaging after neoadjuvant therapy and surgery**  
[B-0450 – B-0459]  
**Moderators:** G. Gennaro; Padua/IT  
P. Martinez-Miravete; Zaragoza/ES

**Saturday, March 9, 08:30–10:00, Room F1**

**RC 802: Clinical challenges in breast MRI**  
**ALL**

- **Chairman’s introduction** [A-225]  
  F.J. Gilbert; Cambridge/UK
- **A. High risk patients: establishing clinical protocols** [A-226]  
  J. Veltman; Almelo/NL
- **B. Non-mass like enhancement (NMLE): when to biopsy?**  
  [A-227]  
  C.K. Kuhl; Aachen/DE
- **C. Monitoring response to neo-adjuvant chemotherapy**  
  [A-228]  
  T.H. Helbich; Vienna/AT
- **Panel discussion: how can the specificity and sensitivity of breast MRI in these indeterminate clinical and imaging scenarios be maximised?**

**Saturday, March 9, 10:30–12:00, Room F2**

**SS 902: Increased risk of breast cancer**  
[B-0559 – B-0569]  
**Moderators:** L.A. Carbonaro; San Donato Milanese/IT  
L. Ollivier; Paris/FR

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

**RC 1202: Multi-modality breast imaging**  
**ALL**

- **Chairman’s introduction** [A-373]  
  M. Lesaru; Bucharest/RO
- **A. Conventional, functional and interventional lymph node assessment** [A-374]  
  P.D. Britton; Cambridge/UK
- **B. Multi-modality assessment of the breast following oncoplastic Surgery** [A-375]  
  M. Torres-Tabanera; Madrid/ES
- **C. Image guided therapy in breast lesions: indications and techniques** [A-376]  
  G. Manenti; Rome/IT
- **Panel discussion: how is the evolution of multi-modality breast imaging changing the nature of the multi-disciplinary meeting (MDM)?**

**Sunday, March 10, 10:30–12:00, Room F2**

**SS 1302: How to get more from breast imaging modalities**  
[B-0679 – B-0688]  
**Moderators:** N. Houssami; Sydney/AU  
M. Nadrljanski; Belgrade/RS

**Sunday, March 10, 14:00–15:30, Room F2**

**RC 1402: How I report**  
**JUN**

- **Moderator:** A. Tardivon; Paris/FR
- **A. Mammography** [A-446]  
  E. Azavedo; Stockholm/SE
- **B. Breast US** [A-447]  
  J. Camps Herrero; Valencia/ES
- **C. Breast MRI** [A-448]  
  R.M. Mann; Nijmegen/NL
Refresher Courses / Scientific Sessions

**Breast**

**Monday, March 11, 10:30–12:00, Room F2**

**SS 1702: Tomosynthesis: a role in clinical practice? [B-0809 – B-0818]**

Moderators: S. Allen; Sutton/UK  
E.M. Jung; Regensburg/DE

**Monday, March 11, 14:00–15:30, Room F1**

**SS 1802a: Newer techniques in breast imaging and therapy [B-0949 – B-0958]**

Moderators: F. Chamming’s; Paris/FR  
M. Sklair-Levy; Tel Aviv/IL

**Monday, March 11, 14:00–15:30, Room F2**

**SS 1802b: Maximising cancer detection in breast screening [B-0959 – B-0968]**

Moderators: M. Álvarez-Benito; Córdoba/ES  
E. Szabó; Szeged/HU

**Monday, March 11, 16:00–17:30, Room F2**

**RC 1902: Breast ultrasound**

Moderator: M. Müller-Schimpfle; Frankfurt a. Main/DE

A. Physics and practical aspects of high-quality hand-held and automated breast US [A-610]  
M.H. Fuchsjaeger; Graz/AT

B. Complicated cysts and complex-cystic lesions: differentiation and management [A-611]  
C.F. Weismann; Salzburg/AT

C. The use of ultrasound in the evaluation of the nipple-areolar complex [A-612]  
R. Salvador; Barcelona/ES

**Cardiac**

**Thursday, March 7, 10:30–12:00, Room B**

**SS 103: CT and MRI in preoperative and postoperative evaluation [B-0001 – B-0010]**

Moderators: G.A. Krombach; Giessen/DE  
R. Sanz-Requena; Valencia/ES

**Thursday, March 7, 14:00–15:30, Room P**

**SS 203: Planning cardiac interventions [B-0260 – B-0269]**

Moderators: I. Arkhipova; Moscow/RU  
P. Mildenberger; Mainz/DE

**Thursday, March 7, 16:00–17:30, Room D2**

**RC 303: Cardiac imaging: the cutting edge**

Moderator: E. Di Cesare; L’Aquila/IT

A. Cardiac MRI: do we need more than 1.5T? [A-011]  
B.J. Wintersperger; Toronto, ON/CA

B. Cardiac CT: technique in 2020; where to next? [A-012]  
K. Nikolaou; Munich/DE

C. Cardiac hybrid imaging: “One-Stop-Shop” [A-013]  
P.A. Kaufmann; Zurich/CH

**Friday, March 8, 10:30–12:00, Room P**

**SS 503: Advances in coronary CT angiography [B-0370 – B-0379]**

Moderators: S. Bohata; Brno/CZ  
L. Natale; Sesto Fiorentino/IT

**Friday, March 8, 14:00–15:30, Room C**

**SS 603a: CT and MRI: risk stratification [B-0410 – B-0419]**

Moderators: E. Mershina; Moscow/RU  
M.R. Rees; Gwynedd/UK

**Friday, March 8, 14:00–15:30, Room G/H**

**SS 603b: Cardiomyopathy and fibrosis [B-0460 – B-0469]**

Moderators: P. Donato; Coimbra/PT  
R. Maksimovic; Belgrade/RS
Refresher Courses / Scientific Sessions

Cardiac

Saturday, March 9, 08:30–10:00, Room P
RC 803: Practical approach to cardiovascular risk stratification with CT and MRI

Moderator: C. Peebles; Southampton/UK
A. Modern views on value of coronary calcium scoring for risk assessment [A-248]
A. Stadler; Vienna/AT

B. Coronary CTA: from detection of stenosis to prognosis [A-249]
N.R. Mollet; Turnhout/BE

C. Myocardial perfusion and viability for risk scoring [A-250]
A. de Roos; Leiden/NL

Saturday, March 9, 10:30–12:00, Room N/O
SS 903: Myocardial perfusion and coronary artery disease [B-0580 – B-0589]

Moderators: F. Cademartiri; Monastier di Treviso/IT
G.I. Kirova-Nedialkova; Sofia/BG

Sunday, March 10, 10:30–12:00, Room E2
SS 1303: Towards improved image quality and detection [B-0660 – B-0669]

Moderators: G. Feuchtner; Innsbruck/AT
C. Herzog; Munich/DE

Sunday, March 10, 16:00–17:30, Room I/K
RC 1503: Cardiac CT and MRI in difficult patients: what to do?

- Chairman's introduction [A-512]
  M. Hamilton; Bristol/UK

A. Coronary CTA in patients with severe arrhythmias and high heart rate [A-513]
C. Loewe; Vienna/AT

B. Severe coronary calcinosis and stents: tips and tricks in image acquisition and interpretation [A-514]
F. Pugliese; London/UK

C. Cardiac MRI: possible problems and how to avoid them [A-515]
E. Mershina; Moscow/RU

- Panel discussion: When to scan and when not to? How can we make the best of what we have?

Monday, March 11, 08:30–10:00, Room P
RC 1603: How I report

Moderator: R. Vliegenthart; Groningen/NL
A. Chest x-ray in cardiac disease [A-572]
M. Rubens; London/UK

B. Coronary CTA [A-573]
F. Wolf; Vienna/AT

C. Cardiac MRI in ischaemic heart disease [A-574]
J. Bremerich; Basle/CH

Monday, March 11, 10:30–12:00, Room N/O
SS 1703: Biomarkers, tissue characterisation and remodelling [B-0849 – B-0858]

Moderators: M. Das; Maastricht/NL
K. Gruszczynska; Katowice/PL

Monday, March 11, 14:00–15:30, Room D1
SS 1803: Cardiac imaging: into the future [B-0909 – B-0918]

Moderators: R.W. Bauer; Frankfurt/DE
E. Canet Soulas; Bron/FR
Refresher Courses / Scientific Sessions

Chest

**Thursday, March 7, 10:30–12:00, Room D1**

**SS 104: Lung cancer: from tissue characterisation to treatment**

[B-0021 – B-0030]

**Moderators:**
- E. Castañer; Sabadell/ES
- N. Tacelli; Brussels/BE

**Thursday, March 7, 14:00–15:30, Room D1**

**SS 204: Airways and infiltrative lung diseases**

[B-0160 – B-0169]

**Moderators:**
- G.R. Ferretti; Grenoble/FR
- C. Mueller-Mang; Vienna/AT

**Thursday, March 7, 16:00–17:30, Room I/K**

**RC 304: How I report**

**Moderator:**
- J. Cáceres; Barcelona/ES

- A. Bedside chest radiography [A-033]
  - R. Eibel; Schwerin/DE

- B. CTA and MRA of the pulmonary arteries [A-034]
  - J.E. Wildberger; Maastricht/NL

- C. PET/CT [A-035]
  - C. Keyzer; Brussels/BE

**Friday, March 8, 10:30–12:00, Room D1**

**SS 504: Lung nodules**

[B-0290 – B-0299]

**Moderators:**
- S. Diederich; Düsseldorf/DE
- N. Karabulut; Denizli/TR

**Saturday, March 9, 10:30–12:00, Room D1**

**SS 904: Image quality and dose reduction**

[B-0519 – B-0528]

**Moderators:**
- P.A. Grenier; Paris/FR
- J. Vlahos; London/UK

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**Saturday, March 9, 16:00–17:30, Room I/K**

**RC 1104: Pulmonary infections: the old and the new**

**Moderator:**
- F. Gleeson; Oxford/UK

- A. Mycobacterial infections [A-333]
  - C. Beigelman; Lausanne/CH

- B. Infectious disease in immuno-compromised patients [A-334]
  - C. P. Heussel; Heidelberg/DE

- C. Emerging infections [A-335]
  - T. Franquet; Barcelona/ES

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

**RC 1204: Lung cancer staging in 2013**

**Chairman's introduction:**
- The latest TNM classification [A-380]
  - J. Biederer; Heidelberg/DE

- A. Local tumour staging [A-381]
  - L. Bonomo; Rome/IT

- B. Lymph node staging [A-382]
  - W.F.M. De Wever; Leuven/BE

- C. Distant metastasis and whole body imaging [A-383]
  - G. Antoch; Düsseldorf/DE

**Panel discussion: Facts and controversies in lung cancer staging**

**Sunday, March 10, 10:30–12:00, Room D1**

**SS 1304: CTPA techniques in lung perfusion and pulmonary hypertension**

[B-0630 – B-0639]

**Moderators:**
- I. Hartmann; Rotterdam/NL
- E.J. Stern; Seattle, WA/US
Refresher Courses / Scientific Sessions

**Monday, March 11, 08:30–10:00, Room I/K**

**RC 1604: Pulmonary embolism: guidelines and best practice throughout Europe**

- Chairman’s introduction [A-559]
  - M. Rémy-Jardin; Lille/FR
- A. Pioped 1-2-3: what have we learned so far? [A-560]
  - C. Engelke; Göttingen/DE
- B. PE in oncologic patients [A-561]
  - B. Ghaye; Brussels/BE
- C. PE during pregnancy and puerperium [A-562]
  - M.-P. Revel; Paris/FR

- Panel discussion: Pulmonary embolism work-up in 2013

**Monday, March 11, 10:30–12:00, Room D1**

**SS 1704: Technological refinements: from x-rays to micro-imaging [B-0759 – B-0768]**

- Moderators:
  - A.P. Parkar; Bergen/NO
  - C.M. Schaefer-Prokop; Amersfoort/NL

**Monday, March 11, 16:00–17:30, Room I/K**

**RC 1904: Phenotypes in obstructive airway disease: how should I image, analyse and report?**

- Moderator: P.A. Gevenois; Brussels/BE
- A. Asthma and associated conditions [A-616]
  - P.-Y. Brillet; Bobigny/FR
- B. Chronic obstructive pulmonary disease (COPD) [A-617]
  - N. Sverzellati; Parma/IT
- C. Cystic fibrosis and other bronchiectatic diseases [A-618]
  - M.U. Puderbach; Heidelberg/DE

**Computer Applications**

**Thursday, March 7, 10:30–12:00, Room Z**

**SS 105: IT infrastructure, learning support and teleradiology [B-0141 – B-0149]**

- Moderators: B. Gibaud; Rennes/FR
  - A. Simisker; Tartu/EE

**Thursday, March 7, 14:00–15:30, Room Z**

**SS 205: Quantitative image analysis and optimisation [B-0280 – B-0289]**

- Moderators: L. Faggioni; Pisa/IT
  - M. Fatehi; Tehran/IR

**Thursday, March 7, 16:00–17:30, Room Q**

**RC 305: New PACS architecture: decoupling image management from image navigation**

- Chairman’s introduction [A-047]
  - H.U. Lemke; Berlin/DE
- A. Image navigation and new PACS architecture [A-048]
  - J. Reponen; Raahe/FI
- B. Intraoperative imaging for surgeons [A-049]
  - A. Pietrabissa; Pavia/IT
- C. Dismantling PACS: separating image viewing from the data storage and sharing [A-050]
  - B. Gibaud; Rennes/FR

- Panel discussion: How should we manage our images today?

**Saturday, March 9, 10:30–12:00, Room Z**

**SS 905: Computer-aided diagnosis [B-0610 – B-0619]**

- Moderators: T. Mang; Vienna/AT
  - D. Regge; Turin/IT

**Monday, March 11, 08:30–10:00, Room Q**

**RC 1605: Improving workflow efficiency and quality**

- Chairman’s introduction [A-575]
  - D. Caramella; Pisa/IT
- A. Improving quality and efficiency of computerised order entry through decision support [A-576]
  - P. Mildenberger; Mainz/DE
- B. Improving quality and efficiency of reporting by structure and templates [A-577]
  - N. Dugar; Doncaster/UK
- C. Improving quality and efficiency of dose management through exchange between modalities and registries [A-578]
  - E. Vaño; Madrid/ES

- Panel discussion: Will novel IT tools really improve quality and efficiency in daily radiological practice?
Refresher Courses / Scientific Sessions

Molecular Imaging and Contrast Media

Thursday, March 7, 16:00–17:30, Room E1
RC 306: Molecular imaging in oncology
Moderator: O. Clément; Paris/FR
A. New PET-tracers for oncology [A-014]
   P.L. Choyke; Bethesda, MD/US
B. Potential of MRI for molecular imaging in oncology [A-015]
   F.A. Gallagher; Cambridge/UK
C. Emerging molecular imaging techniques [A-016]
   F.M.A. Kiessling; Aachen/DE

Friday, March 8, 14:00–15:30, Room Z
SS 606: MR/PET and PET/CT [B-0500 – B-0508] ALL
Moderators: N. Belcari; Pisa/IT
            P.R. Ros; Cleveland, OH/US

Sunday, March 10, 10:30–12:00, Room Z
SS 1306: New agents and protocols [B-0739 – B-0748] ADV
Moderators: L. Grazioni; Brescia/IT
            T.C. Lauenstein; Essen/DE

Monday, March 11, 10:30–12:00, Room Z
SS 1706: Molecular imaging in cancer and degenerative diseases [B-0879 – B-0888] ADV
Moderators: J. Hakumäki; Kuopio/FI
             E. Lopci; Rozzano/IT

Monday, March 11, 14:00–15:30, Room Z
SS 1806: Functional studies and safety [B-1029 – B-1038]
Moderators: T. Gleeson; Wexford/UK
            E.M. Merkle; Basle/CH

Monday, March 11, 16:00–17:30, Room D2
RC 1906: How I optimise contrast media administration
Moderator: W. Semmler; Heidelberg/DE
A. CT [A-594]
   P. Leander; Malmö/SE
B. MRI [A-595]
   G.M. Bongartz; Basle/CH
C. PET/CT [A-596]
   X. Montet; Geneva/CH

Genitourinary

Thursday, March 7, 10:30–12:00, Room G/H
SS 107: Prostate imaging [B-0081 – B-0090] ALL
Moderators: S. Morozov; Moscow/RU
            J. Richenberg; Brighton/UK

Thursday, March 7, 16:00–17:30, Room G/H
RC 307: Renal and adrenal tumours
Moderator: B. Brkljačić; Zagreb/HR
A. Adrenal masses, a practical approach [A-030]
   G. Heinz-Peer; St. Pölten/AT
B. Staging renal cancer [A-031]
   R. Pozzi-Mucelli; Verona/IT
C. How to deal with small indeterminate renal masses [A-032]
   O. Hélénon; Paris/FR

Friday, March 8, 10:30–12:00, Room G/H
SS 507: New frontiers in GU imaging [B-0340 – B-0349]
Moderators: G. Hagen; Oslo/NO
            C.M.A. Hoeks; Nijmegen/NL

Friday, March 8, 14:00–15:30, Room A
SS 607: Female pelvis imaging [B-0390 – B-0399] ALL
Moderators: L.S. Fournier; Paris/FR
            A.G. Rockall; London/UK

Friday, March 8, 16:00–17:30, Room G/H
RC 707: Diagnosis and management of GU tract trauma
Moderator: A. Magnusson; Uppsala/SE
A. Imaging the kidney and ureter [A-176]
   M.-F. Bellin; Le Kremlin-Bicêtre/FR
B. Imaging the bladder and urethra [A-177]
   U.G. Mueller-Lisse; Munich/DE
C. Interventional radiology for GU Trauma [A-178]
   B. Peynircioglu; Ankara/TR
Refresher Courses / Scientific Sessions

Genitourinary

**Sunday, March 10, 08:30–10:00, Room G/H**

**RC 1207: How I report**

Moderator: G.M. Villeirs; Gent/BE

A. Female pelvis MRI [A-377]
   - A.G. Rockall; London/UK

B. Prostate MRI [A-378]
   - J.J. Füterer; Nijmegen/NL

C. CT urography [A-379]
   - N.C. Cowan; Oxford/UK

**Sunday, March 10, 10:30–12:00, Room G/H**

**SS 1307: The bladder and below**

[B-0689 – B-0698]

Moderators: M. Baramia; Tbilisi/GE
R.H. Oyen; Leuven/BE

**Sunday, March 10, 14:00–15:30, Room I/K**

**RC 1407: Contrast media safety: update**

- Chairman’s introduction [A-453]
  - P. Reimer; Karlsruhe/DE

A. Acute non-renal reactions to contrast media: new concepts [A-454]
  - O. Clément; Paris/FR

B. Nephrogenic systemic fibrosis: from pathophysiology to recommendations [A-455]
  - H.S. Thomsen; Herlev/DK

C. Contrast medium-induced nephropathy and new guidelines [A-456]
  - F. Stacul; Trieste/IT

- Panel discussion: What is the most appropriate radiological approach to patients with falling eGFR and when should contrast media be administered and when should it not?

**Monday, March 11, 10:30–12:00, Room G/H**

**SS 1707: Hints on haematuria and adrenals for all**

[B-0819 – B-0828]

Moderators: O. Nikolic; Novi Sad/RS
K. Sugimura; Kobe/JP

**Monday, March 11, 14:00–15:30, Room G/H**

**SS 1807: Mixed modalities in GU imaging**

[B-0969 – B-0978]

Moderators: A.J. Beer; Munich/DE
I. Vivas; Pamplona/ES

Head and Neck

**Thursday, March 7, 14:00–15:30, Room C**

**SS 208: Head and neck cancer: functional imaging and hybrid modalities**

[B-0150 – B-0159]

Moderators: N. Abolmaali; Dresden/DE
S. Steens; Nijmegen/NL

**Friday, March 8, 14:00–15:30, Room L/M**

**SS 608: Technical innovations, TMJ disease and rare entities**

[B-0470 – B-0479]

Moderators: J. Frühwald-Pallamar; Vienna/AT
J. Widelec; Brussels/BE

**Saturday, March 9, 16:00–17:30, Room D2**

**RC 1108: Skull base lesions: imaging studies and differential diagnosis**

Moderator: L. Grzycka-Kowalczyk; Lublin/PL

A. Anterior cranial fossa with special emphasis on olfactory apparatus lesions [A-309]
  - T.P. J. Duprez; Brussels/BE

B. Middle cranial fossa pathologies [A-310]
  - A. Borges; Lisbon/PT

C. Posterior cranial fossa pathologies [A-311]
  - H. Tanghe; Rotterdam/NL

**Sunday, March 10, 10:30–12:00, Room L/M**

**SS 1308: Advanced imaging of the ear, orbit and glands**

[B-0709 – B-0718]

Moderators: R. Elias; Rotterdam/NL
B.F. Schuknecht; Zurich/CH

**Sunday, March 10, 14:00–15:30, Room D2**

**RC 1408: Laryngeal cancer and radiology**

- Chairman’s introduction [A-460]
  - J.E. Kabala; Bristol/UK

A. Staging of laryngeal cancer: pearls and pitfalls [A-461]
  - R. Maroldi; Brescia/IT

B. Evaluation after surgery and non-surgical treatment: expected findings [A-462]
  - S. Bisdas; Tübingen/DE

C. Cancer recurrence: how to address clinical dilemmas [A-463]
  - B. Verbist; Leiden/NL

- Panel discussion: Diagnostic algorithms for diagnosis and follow-up of laryngeal cancer
Refresher Courses / Scientific Sessions

**Head and Neck**

**Sunday, March 10, 16:00–17:30, Room N/O**

**RC 1508: Performing and reporting head and neck examinations: how should I do it?**

**Moderator:** K. Surlan Popović; Ljubljana/SI

A. **Sinonasal CT scans: technique and evaluation** [A-519]
   H.B. Eggesbo; Oslo/NO

B. **Temporal bone: CT and MRI** [A-520]
   M.M. Lemmerling; Gent/BE

C. **CT and MRI of the neck: how to address key clinical questions** [A-521]
   D. Farina; Brescia/IT

**Monday, March 11, 16:00–17:30, Room N/O**

**RC 1908: Temporal bone: imaging the most common symptoms and signs**

**Moderator:** T. Beale; London/UK

A. **Conductive hearing loss: what's behind it?** [A-619]
   A. Trojanowska; Lublin/PL

B. **Sensorineural hearing loss: a challenge for radiologists** [A-620]
   J.W. Casselman; Bruges/BE

C. **Tinnitus and vertigo: diagnostic algorithm** [A-621]
   R.B.-J. de Bondt; Zwolle/NL

**Interventional Radiology**

**Thursday, March 7, 10:30–12:00, Room D2**

**SS 109: Chemoembolisation and radioembolisation of liver tumours** [B-0031 – B-0040]

**Moderators:** A. Denys; Lausanne/CH
   P. Paprottka; Munich/DE

**Thursday, March 7, 14:00–15:30, Room D2**

**SS 209: Ablation and biopsy of the prostate and the kidney** [B-0170 – B-0179]

**Moderators:** J.J. Fütterer; Nijmegen/NL
   J. Kettenbach; Berne/CH

**Thursday, March 7, 16:00–17:30, Room N/O**

**RC 309: Percutaneous treatment of chronic back pain and sciatica**

- **Chairman's introduction** [A-040]
  A.D. Kelekis; Athens/GR

- **Sacroiliac joint syndrome** [A-041]
  D.J. Wilson; Oxford/UK

- **Facet syndrome** [A-042]
  M. Gallucci; L’Aquila/IT

- **Intervertebral disc syndromes** [A-043]
  A. Gangi; Strasbourg/FR

- **Panel discussion: How can imaging methods separate candidates for percutaneous therapy and surgery?**

**Friday, March 8, 10:30–12:00, Room D2**

**SS 509: Neurovascular and spine interventions** [B-0300 – B-0309]

**Moderators:** E.R. Gizewski; Innsbruck/AT
   L. Pierot; Reims/FR

**Friday, March 8, 14:00–15:30, Room D2**

**SS 609a: Oncologic ablation and guided interventions** [B-0420 – B-0429]

**Moderators:** P. Almeida; Coimbra/PT
   A. Basile; Catania/IT

**Friday, March 8, 14:00–15:30, Room P**

**SS 609b: Gynaecological and obstetric interventions** [B-0490 – B-0499]

**Moderators:** P.E. Andersen; Odense/DK
   R. Nijenhuis; Maastricht/NL
Refresher Courses / Scientific Sessions
Interventional Radiology

Friday, March 8, 16:00–17:30, Room N/O
RC 709: Expanding the role of interventional radiology in hepatocellular carcinoma

- Chairman’s introduction [A-186]
  V. Válek; Brno/CZ
- A. RF ablation [A-187]
  J.L. del Cura; Bilbao/ES
- B. Intra-arterial procedures [A-188]
  F. Orsi; Milan/IT
- C. Portal vein embolisation before Surgery [A-189]
  A. Denys; Lausanne/CH
- Panel discussion: How to allow for more patients with HCC to be treated?

Saturday, March 9, 08:30–10:00, Room N/O
RC 809: What should every radiologist know about the endovascular treatment of abdominal aortic aneurysms?

- Chairman’s introduction [A-244]
  H. Rousseau; Toulouse/FR
- A. Pre-therapeutic radiological evaluation [A-245]
  J. Raupach; Hradec Kralove/CZ
- B. EVAR techniques and results [A-246]
  F. Fanelli; Rome/IT
- C. Imaging follow-up and treatment of complications [A-247]
  R. Morgan; London/UK
- Panel discussion: What are the best imaging methods for follow-up?

Saturday, March 9, 10:30–12:00, Room D2
SS 909: Thoracic interventions [B-0529 – B-0538]

Moderators: J. Tacke; Passau/DE
K. Zelenak; Martin/SK

Saturday, March 9, 16:00–17:30, Room N/O
RC 1109: Update on biliary interventions

- Chairman’s introduction [A-339]
  M. Krokidis; Cambridge/UK
- A. Fistula and benign stenosis [A-340]
  M. Bezzi; Rome/IT
- B. Interventions after liver transplantation [A-341]
  P. Goffette; Brussels/BE
- C. In tandem with endoscopy [A-342]
  D.F. Martin; Manchester/UK
- Panel discussion: Are there new possibilities in the area of biliary interventions?

Sunday, March 10, 08:30–10:00, Room N/O
RC 1209: Gynaecological and obstetrical haemorrhagic emergencies

- Chairman’s introduction [A-388]
  A.-M. Belli; London/UK
- A. Etiology and treatment of gynaecological benign and malignant causes of massive bleeding [A-389]
  A. Keeling; Dublin/IE
- B. Can we prevent post-partum haemorrhage in high-risk patients? [A-390]
  J.-P. Pelage; Caen/FR
- C. Treatment of post-partum haemorrhage [A-391]
  M. Szczeprot-Trojanowska; Lublin/PL
- Panel discussion: How to reduce the radiation doses of these methods?

Sunday, March 10, 10:30–12:00, Room D2
SS 1309: Skeletal and endocrinologic interventions [B-0640 – B-0649]

Moderators: L. Crocetti; Pisa/IT
D.K. Tsetis; Iraklion/GR

Monday, March 11, 10:30–12:00, Room D2
SS 1709: Abdominal interventions: from TIPS to bile ducts [B-0769 – B-0778]

Moderators: R.F. Dondelinger; Liège/BE
B. Sekovski; Split/HR

Monday, March 11, 14:00–15:30, Room D2
SS 1809: New approaches to aortic and peripheral interventions [B-0919 – B-0928]

Moderators: S. Kudrnova; Budapest/HU
R. Morgan; London/UK
### Refresher Courses / Scientific Sessions

#### Musculoskeletal

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<td>Sunday, March 10</td>
<td>10:30–12:00</td>
<td>Room E1</td>
<td>SS 1310: Arthritis and metabolic bone disease</td>
<td>[B-0650 – B-0659]</td>
<td>A.J. Grainger; Leeds/UK</td>
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<td>A. Plagou; Athens/GR</td>
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<td>Sunday, March 10</td>
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<td>Room E1</td>
<td>RC 1410: How I report</td>
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- Chairman's introduction [A-312]
  F.M.H. Vanhoenacker; Antwerp/BE
- A. Patterns of injury [A-313]
  P. Van Dyck; Antwerp/BE
- B. Inflammatory disease [A-314]
  A. Cotten; Lille/FR
- C. Soft tissue tumours/tumour-like lesions [A-315]
  J.C. Vilanova; Girona/ES

- Panel discussion: What are the remaining clinical questions that imaging currently cannot answer and how can we answer them in the future?
### Musculoskeletal

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<td>SS 1710: Hip: CT and MRI applications</td>
<td>M.H. Maurer; Berlin/DE</td>
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<td>A. Vieira; Porto/PT</td>
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<td>Monday, March 11</td>
<td>14:00–15:30</td>
<td>E1</td>
<td>SS 1810: Knee: new horizons</td>
<td>M.P. Aparisi Gomez; Valencia/ES</td>
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<td>A. Cotten; Lille/FR</td>
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<td>RC 1910: Intra-articular imaging</td>
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<td>• Chairman’s introduction [A-597]</td>
<td>A.H. Karantanas; Iraklion/GR</td>
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<td>A. Standard MR techniques [A-598]</td>
<td>C. Faletti; Turin/IT</td>
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<td>B. CT arthrography [A-599]</td>
<td>C.W.A. Pfirrmann; Zurich/CH</td>
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<td>C. MR arthrography [A-600]</td>
<td>J. Kramer; Linz/AT</td>
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<td>• Panel discussion: Which imaging technique for which clinical scenario?</td>
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### Neuro

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<td>SS 111: From structure to function</td>
<td>S.J. Bakke; Oslo/NO</td>
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<td>B. Ertl-Wagner; Munich/DE</td>
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<td>Thursday, March 7</td>
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<td>G/H</td>
<td>SS 211: Infection and inflammation</td>
<td>E. Marco de Lucas; Santander/ES</td>
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<td>G. Schroth; Berne/CH</td>
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<td>Friday, March 8</td>
<td>08:30–10:00</td>
<td>G/H</td>
<td>RC 411: The paediatric brain: not just a small brain</td>
<td>C. Venstermans; Antwerp/BE</td>
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<td>A. Neurocutaneous syndromes: more than neurofibromatosis [A-085]</td>
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<td>B. Ertl-Wagner; Munich/DE</td>
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<td>B. Patterns of white matter disease in children [A-086]</td>
<td>A. Rossi; Genoa/IT</td>
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<td>C. Paediatric brain tumours [A-087]</td>
<td>C. Hoffmann; Tel Hashomer/IL</td>
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<td>SS 511: Stroke-related arterial disease</td>
<td>E. Avdagic; Sarajevo/BA</td>
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<td>P. Barsi; Budapest/HU</td>
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<td>Friday, March 8</td>
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<td>SS 611: Alzheimer’s and Parkinson’s</td>
<td>B. Göraj; Nijmegen/NL</td>
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<td>T. Meindl; Landshut/DE</td>
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Saturday, March 9, 10:30–12:00, Room C
SS 911: New insights into brain gliomas [B-0509 – B-0518]
Moderators: L.C. Tzarouchi; Ioannina/GR
P. Vilela; Almada/PT

Saturday, March 9, 16:00–17:30, Room G/H
RC 1111: Brain tumours: advanced imaging techniques in daily practice – do we really need them?
Moderator: Z. Merhemic; Sarajevo/BA
A. Diffusion-weighted imaging (DWI) and diffusion tensor imaging (DTI) [A-330]
M. Law; Los Angeles, CA/US
B. Perfusion imaging [A-331]
Y. Özsunar; Aydin/TR
C. Follow-up after treatment [A-332]
P.C. Maly Sundgren; Lund/SE

Sunday, March 10, 08:30–10:00, Room E2
RC 1211: Stroke: is the prognosis getting any better?
• Chairman’s introduction [A-364]
J.-P. Pruvo; Lille/FR
A. Initial imaging work-up: CT or MR? [A-365]
P.M. Parizel; Antwerp/BE
B. Stroke: is there really any therapy? [A-366]
V. Mendes Pereira; Geneva/CH
P. Vilela; Almada/PT
• Panel discussion: What is the future of stroke prevention and treatment?

Sunday, March 10, 10:30–12:00, Room F1
SS 1311: Brain tumours: imaging and therapy [B-0670 – B-0678]
Moderators: X. Golay; London/UK
A. Zimmny; Wroclaw/PL

Sunday, March 10, 16:00–17:30, Room G/H
RC 1511: Epilepsy: a lack of knowledge can be dangerous
Moderator: M.A. Papathanasiou; Athens/GR
A. Anatomy of the limbic system [A-509]
T.A. Yousry; London/UK
B. Temporal lobe epilepsy [A-510]
I.N. Pronin; Moscow/ RU
C. fMRI in epilepsy [A-511]
N. Bargalló; Barcelona/ES

Monday, March 11, 08:30–10:00, Room G/H
RC 1611: Spine: update on postoperative imaging and minimally invasive procedures
• Chairman’s introduction [A-555]
J. Van Goethem; Antwerp/BE
A. Postoperative spine [A-556]
L. Van den Hauwe; Brasschaat/BE
B. Indications for vertebroplasty [A-557]
A. Gangi; Strasbourg/FR
C. Percutaneous treatment of spinal diseases [A-558]
M. Muto; Naples/IT
• Panel discussion: Minimally invasive spinal procedures: the radiologist’s future role?

Monday, March 11, 10:30–12:00, Room C
SS 1711: Brain ischaemia: perfusion and diffusion [B-0749 – B-0758]
Moderators: L. Oleaga Zufiría; Barcelona/ES
M. Vernooij; Rotterdam/NL

Monday, March 11, 14:00–15:30, Room B
SS 1811a: Latest developments in neuroimaging [B-0889 – B-0898]
Moderators: S. Haller; Geneva/CH
E. Papadaki; Iraklion/GR

Monday, March 11, 14:00–15:30, Room C
SS 1811b: Spinal imaging [B-0899 – B-0908]
Moderators: M. Buruian; Targu-Mures/RO
A. Cianfoni; Lugano/CH

Monday, March 11, 16:00–17:30, Room G/H
RC 1911: Multiple sclerosis: 2013 update
Moderator: E.T. Tali; Ankara/TR
A. Differential diagnosis of multiple T2-HI white matter lesions [A-613]
A. Rovira-Cañellas; Barcelona/ES
F. Barkhof; Amsterdam/NL
C. Imaging of MS treatment-related complications [A-615]
M.M. Thurnher; Vienna/AT
**Saturday, March 9, 08:30–10:00, Room Q**

**RC 812: Imaging the paediatric spine**

**Moderator:** C.J. Kellenberger; Zurich/CH

A. Cranio-cervical junction abnormalities [A-251]
   B. Ozgen Mocan; Ankara/TR

B. Inflammation, infection and tumours: the role of imaging [A-252]
   M.I. Argyropoulou; Ioannina/GR

C. Imaging spinal trauma in childhood [A-253]
   M. Maas; Amsterdam/NL

**Saturday, March 9, 10:30–12:00, Room P**

**SS 912: Paediatric body and bones [B-0590 – B-0599]**

**Moderators:** K.J. Johnson; Birmingham/UK
               L.-S. Ording-Müller; Tromsø/NO

**Sunday, March 10, 08:30–10:00, Room Q**

**RC 1212: Oncologic imaging: how to image, follow up and report**

- **Chairman’s introduction** [A-394]
  D. Roebuck; London/UK

A. Renal and adrenal tumours in children [A-395]
   A.M.J.B. Smets; Amsterdam/NL

B. Paediatric liver malignancies [A-396]
   D. Roebuck; London/UK

C. Oncologic imaging in the paediatric brain [A-397]
   G. Hahn; Dresden/DE

- **Panel discussion: How far should the radiologist go in suggesting tumour recurrence or post-treatment complications?**

**Sunday, March 10, 10:30–12:00, Room P**

**SS 1312: Chest, heart and radiation awareness [B-0729 – B-0738]**

**Moderators:** W. Hirsch; Leipzig/DE
                P.D. Humphries; London/UK

**Sunday, March 10, 14:00–15:30, Room Q**

**RC 1412: Paediatric emergencies**

**Moderator:** V. Donoghue; Dublin/IE

A. The acute non-traumatic neurological patient: CT or MRI? [A-468]
   E. Vázquez; Barcelona/ES

B. Imaging of acute chest pain and/or distress in children [A-469]
   C.E. de Lange; Oslo/NO

C. The role of the interventional radiologist in paediatric Trauma [A-470]
   J.B. Karani; London/UK
## Refresher Courses / Scientific Sessions

### Physics in Radiology

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<td>O. Ciraj-Bjelac; Belgrade/RS</td>
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<td>SS 213: Innovations in CT technology and data processing [B-0240 – B-0249]</td>
<td>C. Leidecker; Forchheim/DE</td>
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<td>R. Padovani; Udine/IT</td>
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<td>RC 1113: Cone-beam imaging</td>
<td>O. Ciraj-Bjelac; Belgrade/RS</td>
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<td><strong>A. Fundamentals of cone-beam imaging [A-336]</strong></td>
<td>M. Kachelrieß; Heidelberg/DE</td>
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<td><strong>B. Medical applications of CB imaging [A-337]</strong></td>
<td>M. Grass; Hamburg/DE</td>
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<td><strong>C. 3D dentomaxillofacial imaging [A-338]</strong></td>
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<td>K. Horner; Manchester/UK</td>
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<td><strong>A. Radiation risks for patients and staff [A-385]</strong></td>
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<td><strong>C. Communication of risk to patients and public [A-387]</strong></td>
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<td><strong>Panel discussion: How to communicate risk to patients and the public?</strong></td>
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<td><strong>C. Preclinical hybrid imaging [A-459]</strong></td>
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<td>SS 114: Importance of education in practice [B-0131 – B-0140]</td>
<td>R. Ribeiro; Lisbon/PT, T. Roding; Haarlem/NL</td>
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<td>SS 214: Managing quality and dose in CT [B-0270 – B-0279]</td>
<td>E. Agadakos; Athens/GR, A. Yule; Cardiff/UK</td>
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<td>SS 514: The radiographer’s role as health care team member [B-0380 – B-0389]</td>
<td>V. Syrgiamiotis; Athens/GR, C. Vandulek; Kaposvár/HU</td>
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<td>RC 714: Clinical audit: from EURATOM to the clinical environment</td>
<td>E.J. Adam; London/UK, D. Pronk-Larive; Middelburg/NL</td>
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<td>SS 914: Dose optimisation as daily challenge [B-0600 – B-0609]</td>
<td>P. Blackburn Andersen; Kolding/DK, A. Petakovic; Novo Mesto/SI</td>
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<td>Saturday, March 9</td>
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<td>RC 1114: Hot topics in magnetic resonance imaging</td>
<td>K. Haller; Wiener Neustadt/AT, L. Marti-Bonmati; Valencia/ES</td>
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<td>RC 1214: Dose optimisation in computed tomography</td>
<td>G. Frija; Paris/FR, D. Pekarovic; Ljubljana/SI</td>
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<td>B. Developing patient specific examination protocols [A-393]</td>
<td>H. Precht; Odense/DK</td>
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<td>Towards advancing and developing the role of radiographers</td>
<td>S. Mathers; Aberdeen/UK, D. Tscholakoff; Vienna/AT</td>
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<td>SS 1714: Mammography [B-0869 – B-0878]</td>
<td>S.J. Foley; Dublin/IE, P. Vahtramae; Pärnu/EE</td>
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<td>SS 1814: Challenges of different imaging techniques [B-1019 – B-1028]</td>
<td>H.H. Hjemly; Oslo/NO, J. McNulty; Dublin/IE</td>
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Refresher Courses / Scientific Sessions

**Vascular**

**Thursday, March 7, 10:30–12:00, Room N/O**

**SS 115: Carotid plaque evaluation**

[B-0111 – B-0120]  
**Moderators:** M.A. Aschauer; Graz/AT  
D. Filippiadis; Athens/GR

**Thursday, March 7, 14:00–15:30, Room N/O**

**SS 215: Major vessel imaging**

[B-0250 – B-0259]  
**Moderators:** W.R. Jaschke; Innsbruck/AT  
O. Pellerin; Paris/FR

**Thursday, March 7, 16:00–17:30, Room P**

**RC 315: Vascular imaging in ischaemic stroke**  
**Moderator:** J. Hendrikse; Utrecht/NL  
A. Intracranial atherosclerotic disease of carotid arteries  
[A-044]  
T. Jargiello; Lublin/PL  
B. Verteobasilar atherosclerotic disease [A-045]  
L. Valvassori; Milan/IT  
C. Dissection and vasculitis of intracranial and extracranial  
arteries [A-046]  
H.R. Jäger; London/UK

**Friday, March 8, 10:30–12:00, Room N/O**

**SS 515: Novel tools for blood flow evaluation**

[B-0361 – B-0369]  
**Moderators:** J. Barkhausen; Lübeck/DE  
F.G. Garaci; Rome/IT

**Friday, March 8, 16:00–17:30, Room Z**

**RC 715: Dialysis fistula**  
**Moderator:** H. Deutschmann; Graz/AT  
A. Preoperative mapping [A-198]  
L. Turmel-Rodrigues; Tours/FR  
B. Screening for problems [A-199]  
D. Vorwerk; Ingolstadt/DE  
C. Evaluation of malfunction [A-200]  
R. Uberoi; Oxford/UK

**Saturday, March 9, 08:30–10:00, Room L/M**

**RC 815: How I report**  
**Moderator:** D. Bilecen; Basle/CH  
A. CTA and MRA of supra-aortic arteries [A-241]  
J.H. Gillard; Cambridge/UK  
B. CTA and MRA of thoracic and abdominal aorta [A-242]  
H.J. Michaely; Mannheim/DE  
C. CTA and MRA of peripheral arteries [A-243]  
T. Leiner; Utrecht/NL

**Monday, March 11, 14:00–15:30, Room N/O**

**SS 1815: Vascular research**

[B-0999 – B-1008]  
**Moderators:** S. Kuribayashi; Tokyo/JP  
A. Pellegrin; Trento/IT

**Monday, March 11, 16:00–17:30, Room P**

**RC 1915: Lower extremity venous insufficiency**  
**Moderator:** J. Hendrikse; Utrecht/NL  
A. Venous anatomy and ultrasound [A-623]  
H. Moschouris; Piraeus/GR  
B. Rare venous diseases of the lower extremities [A-624]  
M. Greiner; Neuilly sur Seine/FR  
C. CT venography and MR venography [A-625]  
G. O’Sullivan; Galway/IE

• Panel discussion: Which imaging modality is best for planning endovascular management?

**Thursday, March 7, 10:30–12:00, Room N/O**

**SS 115: Carotid plaque evaluation**

[B-0111 – B-0120]  
**Moderators:** M.A. Aschauer; Graz/AT  
D. Filippiadis; Athens/GR

**Thursday, March 7, 14:00–15:30, Room N/O**

**SS 215: Major vessel imaging**

[B-0250 – B-0259]  
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O. Pellerin; Paris/FR

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L. Valvassori; Milan/IT  
C. Dissection and vasculitis of intracranial and extracranial  
arteries [A-046]  
H.R. Jäger; London/UK

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C. CT venography and MR venography [A-625]  
G. O’Sullivan; Galway/IE

• Panel discussion: Which imaging modality is best for planning endovascular management?
Refresher Courses / Scientific Sessions

Oncologic Imaging

**Thursday, March 7, 10:30–12:00, Room F1**
**SS 116: Perfusion CT and MRI: ready for clinical practice [B-0061 – B-0070]**
**Moderators:** S. Delorme; Heidelberg/DE
F.A. Gallagher; Cambridge/UK

**Thursday, March 7, 14:00–15:30, Room F1**
**SS 216: New biomarkers for tumour quantification [B-0200 – B-0209]**
**Moderators:** C.J. Herold; Vienna/AT
C. Keyzer; Brussels/BE

**Friday, March 8, 08:30–10:00, Room C**
**RC 416: MR imaging for prostate cancer management: the essential guide for radiologists**

- Chairman’s introduction [A-058]
  H.-P. Schlemmer; Heidelberg/DE
- A. Clinical challenges: how to treat prostate cancer [A-059]
  B.A. Hadaschik; Heidelberg/DE
- B. The radiologist’s contribution: how to detect and characterise a tumour [A-060]
  A.R. Padhani; Northwood/UK
- C. The radiologist’s influence on management. Staging prostate cancer: how it impacts on treatment selection [A-061]
  H. Hricak; New York, NY/US
- Panel discussion: Is MRI an integral part of the clinical routine?

**Friday, March 8, 10:30–12:00, Room F1**
**SS 516: Cutting edge imaging in oncology: when and how? [B-0320 – B-0329]**
**Moderators:** K. Coenegrachts; Bruges/BE
E.J. Rummeny; Munich/DE

**Saturday, March 9, 10:30–12:00, Room F1**
**SS 916: Whole-body imaging: how to do it [B-0549 – B-0558]**
**Moderators:** T.F. Hany; Zurich/CH
D. Lambregts; Maastricht/NL

**Sunday, March 10, 10:30–12:00, Room A**
**SS 1316: Rectal cancer imaging: the next step [B-0620 – B-0629]**
**Moderators:** L. Carvo-Semedo; Coimbra/PT
C. Hoeffel; Reims/FR

**Sunday, March 10, 14:00–15:30, Room E2**
**RC 1416: The essentials of lymph node imaging of solid tumours: what the radiologist needs to know**

- Chairman’s introduction [A-437]
  R.G.H. Beets-Tan; Maastricht/NL
- A. The current criteria for nodal involvement on CT/MRI [A-438]
  W. Schima; Vienna/AT
  H.C. Thoeny; Berne/CH
- C. Nuclear medicine: PET and other nuclear medicine techniques [A-440]
  P.L. Choyke; Bethesda, MD/US
- Panel discussion: When and how could imaging make diagnostic biopsy unnecessary?

**Monday, March 11, 08:30–10:00, Room E2**
**RC 1616: Complications of cancer treatment and the detection of recurrences**

- Chairman’s introduction [A-548]
  M. Laniado; Dresden/DE
- A. Head and neck cancer [A-549]
  L. Oleaga Zufiría; Barcelona/ES
- B. Liver and pancreatic cancer [A-550]
  C. Catalano; Rome/IT
- C. Rectal cancer [A-551]
  L.C.O. Blomqvist; Stockholm/SE
- Panel discussion: How to differentiate between treatment sequelae and active disease

**Monday, March 11, 10:30–12:00, Room F1**
**SS 1716: Response evaluation in oncology: beyond RECIST [B-0799 – B-0808]**
**Moderators:** T. Denecke; Berlin/DE
M.I. Furmanek; Warsaw/PL

**Monday, March 11, 16:00–17:30, Room E2**

- Chairman’s introduction [A-601]
  C. Matos; Brussels/BE
- A. Tumour biology, pathogenesis and classification [A-602]
  B. Wiedenmann; Berlin/DE
- B. The current role of nuclear medicine techniques [A-603]
  C. Deroose; Leuven/BE
- C. Anatomical imaging: transabdominal US, endoscopic US, MDCT and MRI. What is the most appropriate imaging approach? [A-604]
  V. Vilgrain; Clichy/FR
- Panel discussion: The future of hybrid imaging?
**Refresher Courses / Scientific Sessions**

**Emergency Radiology**

**Thursday, March 7, 10:30–12:00, Room P**

**SS 117: An update on emergency thoraco-abdominal imaging [B-0121 – B-0130]**

Moderators:  
B. Feragalli; Chieti/IT  
A. Huete; Santiago/CL

**Friday, March 8, 08:30–10:00, Room D2**

**RC 417: ER: basic principles**

Moderator:  
P. Valdés Solís; Marbella/ES

A. Logistics and organisation of an emergency radiology department [A-065]  
M. Körner; Munich/DE

B. Advanced trauma life support: basic knowledge for radiologists [A-066]  
D.R. Kool; Nijmegen/NL

C. Mechanism of injury and MDCT protocols: choosing the right protocol for the right patient [A-067]  
S. Voelckel; Innsbruck/AT

**Saturday, March 9, 08:30–10:00, Room E1**

**RC 817: Polytrauma: redefining imaging issues for management priorities**

- Chairman's introduction: advanced imaging, logistics and management priorities in patients after polytrauma [A-218]  
  H. Alkadhi; Zurich/CH

A. Vascular Trauma [A-219]  
G. Schueller; Bülach/CH

B. Chest and abdomen [A-220]  
M. Scaglione; Castel Volturno/IT

C. Extremities [A-221]  
U. Linsenmaier; Munich/DE

- Panel discussion: How to speed up your diagnoses?

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

**SS 1317: Technical issues and clinical results [B-0719 – B-0728]**

Moderators:  
M. Brink; Nijmegen/NL  
G. Schueller; Bülach/CH

**Sunday, March 10, 16:00–17:30, Room E1**

**RC 1517: ER: comprehensive imaging of non-traumatic abdominal emergencies**

- Chairman's introduction: logistics and management of critical patients with abdominal complaints [A-492]  
  S. Wirth; Munich/DE

A. Imaging of the most frequent emergencies of the upper abdomen [A-493]  
C.J. Zech; Basle/CH

B. Imaging of the most frequent emergencies of the gastrointestinal tract [A-494]  
M. Zins; Paris/FR

C. Imaging of the most frequent emergencies of the genitourinary tract [A-495]  
L.E. Derchi; Genoa/IT

- Panel discussion: How to speed up your diagnoses?
EFOMP Workshop
New technology in diagnostic radiology: new frontiers in imaging of the lung

Organising Committee:

Chairman: P. Sharp; Aberdeen/UK
Members: A. Torresin; Milan/IT
          W.J.M. van der Putten; Galway/IE
          J. Vassileva; Sofia/BG

Saturday, March 9, 08:30–10:00, Room G/H

EF 1: Lung and chest imaging: new approaches

Moderators: P. Sharp; Aberdeen/UK
            W.J.M. van der Putten; Galway/IE

- Welcome address [A-233]
  J. I. Bilbao; Pamplona/ES
  P. Sharp; Aberdeen/UK

- Radiologist’s point of view: clinical and technical requirements for imaging of the lung [A-234]
  H.-U. Kauczor; Heidelberg/DE

- Respiratory motion correction in lung imaging [A-235]
  J. Schnabel; Oxford/UK

- Role of tomosynthesis in lung imaging [A-236]
  M. Båth; Gothenburg/SE

Saturday, March 9, 10:30–12:00, Room G/H

EF 2: Lung imaging: multidisciplinary scenario

Moderators: A. Torresin; Milan/IT
            J. Vassileva; Sofia/BG

- Pulmonary nodule detection using CAD [A-266]
  A. Retico; Pisa/IT

- Optimisation in lung imaging of children [A-267]
  C. Owens; London/UK

- Lung imaging: developments in role of PET [A-268]
  M.-E. Meyer; Amiens/FR

- Lung imaging: developments in role of MR [A-269]
  J.M. Wild; Sheffield/UK
E³ – European Excellence in Education

**Foundation Course: Neuroimaging**

**Friday, March 8, 08:30–10:00, Room E2**

**E³ 420: The orbit, the petrous bone and the sella**

**Moderator:** B. De Foer; Antwerp/BE

A. Imaging of the orbit: the globe and conal lesions [A-072]
   P.C. Maly Sundgren; Lund/SE

B. The petrous bone [A-073]
   F. Veillon; Strasbourg/FR

C. Sella and parasellar pathology [A-074]
   R. Gasparotti; Brescia/IT

**Friday, March 8, 10:30–12:00, Room E2**

**E³ 520c: Paediatric**

**Moderator:** D. Prayer; Vienna/AT

A. Neonatal hypoxic-ischaemic brain injury [A-119]
   M.I. Argyropoulou; Ioannina/GR

B. Spine and spinal cord malformations [A-120]
   A. Rossi; Genoa/IT

C. Imaging of the foetal brain [A-121]
   C. Garel; Paris/FR

**Friday, March 8, 14:00–15:30, Room E2**

**E³ 620: Trauma and vascularity**

**Moderator:** A. Molyneux; Oxford/UK

A. CNS Trauma [A-131]
   P.M. Parizel; Antwerp/BE

B. Cerebral ischaemia and infarction [A-132]
   L. Pierot; Reims/FR

C. Vascular malformations of the spinal cord [A-133]
   D.A. Rüfenacht; Zurich/CH

**Friday, March 8, 16:00–17:30, Room E2**

**E³ 720b: Infection and inflammation**

**Moderator:** A.D. Gouliamos; Athens/GR

A. Infection [A-164]
   E.T. Tali; Ankara/TR

B. Multiple sclerosis [A-165]
   F. Barkhof; Amsterdam/NL

C. Mimics of multiple sclerosis [A-166]
   V. Dousset; Bordeaux/FR

**Saturday, March 9, 08:30–10:00, Room E2**

**E³ 820b: Metabolic and neurodegenerative disorders**

**Moderator:** S. Lehéricy; Paris/FR

A. Dementia [A-222]
   B. Gómez-Ansón; Barcelona/ES

B. Movement disorders [A-223]
   T.A. Yousry; London/UK

C. Metabolic disorders [A-224]
   J.F. Schneider; Basle/CH

**Saturday, March 9, 10:30–12:00, Room E2**

**E³ 920b: Tumours and phacomatosis**

**Moderator:** N. Girard; Marseille/FR

A. Brain tumours [A-263]
   M.M. Thurnher; Vienna/AT

B. Tumours of the spinal cord [A-264]
   J. Van Goethem; Antwerp/BE

C. Phacomatosis [A-265]
   M.A. Papathanasiou; Athens/GR

**Saturday, March 9, 12:15–13:15, EPOS Area**

**Self assessment test**

**Moderator:** M.I. Argyropoulou; Ioannina/GR

- Interactive computer evaluation of course learning
## Thursday, March 7, 14:00–15:30, Room B

**E³ 220: Lung cancer**

- A. Detection [A-003]
  - S. Diederich; Düsseldorf/DE
- B. Follow-up [A-004]
  - F. Gleeson; Oxford/UK

## Thursday, March 7, 16:00–17:30, Room B

**E³ 320: Malignant pancreatic tumours**

- A. Solid tumours [A-005]
  - W. Schima; Vienna/AT
- B. Cystic tumours [A-006]
  - G. Morana; Treviso/IT

## Friday, March 8, 10:30–12:00, Room A

**E³ 520a: Pitfalls in abdominal imaging**

- A. Liver [A-109]
  - V. Vilgrain; Clichy/FR
- B. Pancreas and bile ducts [A-110]
  - R. Manfredi; Verona/IT

## Friday, March 8, 10:30–12:00, Room C

**E³ 520b: Pitfalls in head and neck imaging**

- A. Pitfalls in neck imaging [A-117]
  - F.A. Pameijer; Utrecht/NL
- B. Pitfalls in maxillofacial and skull base imaging [A-118]
  - R. Hermans; Leuven/BE

## Friday, March 8, 16:00–17:30, Room A

**E³ 720a: Neurological emergencies**

- A. Non-traumatic [A-142]
  - C. Ozdoba; Berne/CH
- B. Traumatic [A-143]
  - M. Staigis; Poznan/PL

## Saturday, March 9, 08:30–10:00, Room A

**E³ 820a: Pitfalls in heart imaging**

- A. CT [A-201]
  - G. Bastarrika; Pamplona/ES
- B. MRI [A-202]
  - M. Francone; Rome/IT

## Saturday, March 9, 10:30–12:00, Room A

**E³ 920a: Tips and tricks in chest imaging**

- A. Plain radiography [A-254]
  - J. Cáceres; Barcelona/ES
- B. CT [A-255]
  - J. Vilar; Valencia/ES

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* = Interactive session with electronic voting/self assessment
More about museums and exhibitions in Vienna: www.myESR.org/arts_culture
Accompanying Sessions

Thursday, March 7, 16:00–17:30, Room Z
ESR Radiation Protection Session
Security scanners at airports: are they safe? [ALL]

Moderators: J. Damilakis; Iraklion/GR
P. Vock; Berne/CH

• X-ray backscatter security scanners: principles, performance and potential health risks [A-051]
  J. Damilakis; Iraklion/GR

• Cumulative low-level x-ray radiation exposure: is it harmful? [A-052]
  P. Vock; Berne/CH

• Security scanners using non-ionising radiation: current status and trends for development [A-053]
  M. Kemp; Cambridge/UK

Friday, March 8, 08:30–10:00, Room N/O
EIBIR/EORTC (European Organisation for Research and Treatment of Cancer) Symposium
A radiologist with a ruler in his hand is a dangerous person: seeking standardisation in multicentre imaging trials [ADV]

Moderators: P. Brader; Vienna/AT
Y. Liu; Brussels/BE

• Introduction: Who, what, why, outcome at the end of the symposium [A-095]
  P. Brader; Vienna/AT
  Y. Liu; Brussels/BE

• Setting up clinical trials with functional imaging endpoints: trials and tribulations [A-096]
  N. deSouza; Sutton/UK

• Challenges, problems on key imaging techniques [A-097]
  B. van Beers; Clichy/FR

• Advanced MR neuroimaging in multicentre trials: experience from the EORTC Brain Tumour Group [A-098]
  M. Smits; Rotterdam/NL

• Presentation of LUNG study: from the beginning until today [A-099]
  U. Nestle; Freiburg/DE

• Discussion, Questions and Answers

Friday, March 8, 14:00–15:30, Room Q
ESOR Session
Fostering future researchers [JUN]

Moderators: N. Gourtsoyiannis; Athens/GR
G.P. Krestin; Rotterdam/NL

During this session, the European School of Radiology (ESOR) will give participants an insight into the variety of its training programmes and opportunities. Crucial and evolving obstacles to research training in radiology will be put forward for discussion.

• Introduction
  G.P. Krestin; Rotterdam/NL

• ESOR in action 2013
  N. Gourtsoyiannis; Athens/GR

• Research training for residents
  L. Martí-Bonmatí; Valencia/ES

• PhD in residency programmes
  S. Trattnig; Vienna/AT

• Preparing research trials
  R.G.H. Beets-Tan; Maastricht/NL

• Awards
  During the session, scholars and fellows will be awarded certificates for successfully completing the 2012 ESOR Scholarship and Fellowship Programmes.

Friday, March 8, 08:30–10:00, Room B
6th Post-Processing Face-Off Session [ALL]

Chairman: A. Graser; Munich/DE
Co-chairmen: M. D’Anastasi; Munich/DE
F. Schwarz; Munich/DE

After the great success in the last years, ECR 2013 will, for the sixth time, feature a ‘Workstation Face-Off’ session. Continuous rapid technical advances in CT require state-of-the-art post-processing tools and workstations. Currently, most solutions are based on a thin client-server architecture which significantly speeds up loading times and workflow.

In the 21st century, radiologists are required to interpret 3D datasets and to handle very large data volumes. For several clinical applications, dedicated post-processing workflows are now available. All major vendors offer a variety of hardware and software, and it is often difficult to recognise the individual strengths and weaknesses of different systems. Our 6th annual Post-Processing Face-Off Session will allow you to get an impression of the 3D capabilities and large data volume handling provided by the latest workstation technology.

Several workstations from different vendors (aycan, GE Healthcare, Philips Healthcare, Siemens, TeraRecon, Vital Images) will be set up on stage next to each other, and two cases provided by the ESR will be demonstrated by expert users. This year, one of the cases is a cardiac case involving CTA of the coronary arteries and functional MRI with rest and stress perfusion imaging. The second case will be an oncology patient with a metastasised malignant melanoma. Tasks will include detection of lung nodules with CAD and segmentation of lesions over time assessing response.

The aim of this session is to simulate a realistic ‘reading room’ atmosphere and to give an impression of how different workstations perform in a clinical scenario. We cordially invite you to attend this exciting ‘tournament’ of post-processing.
Accompanying Sessions

Saturday, March 9, 10:30–12:00, Room L/M
Standards and Audit Session
Assessment of radiologists’ professional performance

Moderator: E.J. Adam; London/UK

• Radiologists’ performance: assessment using peer review
  G. Boland; Wellesley, MA/US
• Radiologists’ individual performance: use of standardised test images
  A.G. Gale; Loughborough/UK
• Radiologists’ performance: referrers’ view
  J.M.L. Bosmans; Gent/BE

Saturday, March 9, 10:30–12:00, Meeting Room 14, 1st Level
EIBIR/EuroAIM Session
Evidence-based radiology

Moderators: F. Sardanelli; Milan/IT
  M.G.M. Hunink; Rotterdam/NL

• Systematic reviews and meta-analyses in radiology
  G. Di Leo; Milan/IT
• Guidelines in radiology
  L.M. Sconfienza; Milan/IT
• Clinical decision support for the safe and effective use of imaging tests
  M.G.M. Hunink; Rotterdam/NL.
• Preoperative breast MRI: the MIPA study
  R.M. Trimboli; Milan/IT
• Discussion

Saturday, March 9, 12:45–14:15, Room Z
EIBIR Session
Horizon 2020 – Setting the scene for Europe’s next research programme

Moderators: G.P. Krestin; Rotterdam/NL
  J. Hennig; Freiburg/DE

• Horizon 2020: setting the scene – insight into Horizon 2020 health priorities, including the research infrastructure perspective
  K. Berkouk; Brussels/BE
• IMI – How to speed up the development of better and safer medicines for patients
  E. Vaudano; Brussels/BE
• Public private partnerships as a booster for research and economic growth in the future
  N. Denjoy; Brussels/BE
• The role of imaging in health research in the era of Personalised Medicine
  L. Martí-Bonmatí; Valencia/ES
• How EIBIR supports biomedical imaging scientists in their grant applications and research management
  J. Hennig; Freiburg/DE
• Questions/Answers

Saturday, March 9, 14:00–15:30, Room A
Image Interpretation Quiz: Radiology is global

Moderator: D. Vorwerk; Ingolstadt/DE
Referee: A. Agrawal, Delhi/IN

Panellists:

Team 1:
  A.R. Gillams; London/UK
  T. Leiner; Utrecht/NL
  A. Oikonomou; Alexandroupolis/GR
  C.W. Sperryn; Cape Town/ZA

Team 2:
  F.M. Danza; Rome/IT
  H.B. Eggesbø; Oslo/NO
  P. Rogalla; Toronto, ON/CA
  M. Studniarek; Gdansk/PL

= Interactive session with electronic voting/self assessment
Accompanying Sessions

Saturday, March 9, 16:00–17:30, Room Z
Euro-BioImaging
Towards implementation of a pan-European imaging infrastructure
Moderator: J. Hennig; Freiburg/DE
- Euro-BioImaging – Towards implementation of a European open access imaging research infrastructure
J. Hennig; Freiburg/DE
- Making the case: development of a node for UHF-MRI
O. Speck; Magdeburg/DE
J. Hennig; Freiburg/DE
- Potential of Phase-Contrast Imaging as a node within Euro-BioImaging
F. Bamberg; Munich/DE
- Discussion

Sunday, March 10, 10:30–12:00, Room Q
Radiology Trainees Forum
RTF Highlighted Lectures
Moderators: D. Bulja; Sarajevo/BA
V.H. Koen; Harleem/NL
- Emergency radiology management in patients with polytrauma [A-413]
U. Linsenmaier; Munich/DE
- Imaging of non-traumatic intracranial haemorrhage [A-414]
Z. Merhemic; Sarajevo/BA
- Case-based learning in radiology [A-415]
P. Pokieser; Vienna/AT

Sunday, March 10, 13:00–14:00, Room A
Junior Image Interpretation Quiz: Golden Eye
Moderator: A. Alguersuari; Sabadell/ES
Co-Moderator: E. Belmonte; Barcelona/ES
Panellists:
G. Gherarducci; Pisa/IT
C. Sayer; Brighton/UK
C.M. Sommer; Heidelberg/DE
L. Tzarouchi; Ioannina/GR
A. Vanrossomme; Brussels/BE

Monday, March 11, 08:30–10:00, Room Z
Joint Session of the ESR and EFSUMB
(Asociación Española de Radiología y Ultrasonido)
Advances in diagnostic ultrasound: better results through cooperation
Moderators: L.E. Derchi; Genoa/IT
F. Piscaglia; Bologna/IT
- Introducing the EFSUMB: the world’s largest ultrasound society [A-579]
N. Gritzmann; Vienna/AT
- ESR/EFSUMB collaboration: a newly established platform for joint development of ultrasound in radiology and clinical specialties [A-580]
L.E. Derchi; Genoa/IT
- Image fusion and intervention [A-581]
T. Lorentzen; Herlev/DK
- The EFSUMB non-liver CEUS guidelines [A-582]
F. Piscaglia; Bologna/IT
- The EFSUMB/WFUMB liver-CEUS guidelines [A-583]
M. Claudon; Vandevère-les-Nancy/FR
EIBIR presents IMAGINE

Thursday March 7 to Sunday March 10
Novel technology that shapes radiology:
EIBIR presents IMAGINE

IMAGINE aims to stimulate interaction between imaging researchers and radiologists. Internationally leading academic and industrial research groups present their latest developments in medical image analysis and image-guided interventions. During the interactive software demonstration sessions the visitors get hands-on experience with developed techniques and tools.

**EIBIR IMAGINE committee**

to chair the oral presentations:

Chair & coordinator:
Marleen de Bruijne,
Erasmus MC; Rotterdam/NL & University of Copenhagen; Copenhagen/DK;

EIBIR IMAGINE committee:
Mari Cruz Villa,
Universitat Pompeu Fabra – CISTIB Computational Imaging; Barcelona/ES
Sune Darkner,
Københavns Universitet – Datalogisk Institut (DIKU-NC); Copenhagen/DK
Jan Klein,
Fraunhofer MEVIS – Institute for Medical Image Computing; Bremen/DE
Emanuele Neri,
University of Pisa/Diagnostic and Interventional Radiology; Pisa/IT
Christine Tanner,
Computer Vision Laboratory / ETH Zurich; Zurich/CH
Eva van Rikxoort,
Radboud University Nijmegen – Medical Center, Diagnostic Image Analysis Group; Nijmegen/NL

**Oncological image analysis**

**Thursday, March 7, 14:00–15:30, EIBIR IMAGINE Theatre, Room U**

**Oncological image analysis**

**Oral presentations**
Moderators: EIBIR IMAGINE committee
- Quantifying response to CRT in colorectal cancer patients from dynamic imaging
  M. Bhushan; Oxford /UK
- Efficient workflows and reporting for RECIST and other quantitative imaging standards in cancer research and clinical practice
  M. Baumhauer; Heidelberg/DE
  M. Seitel; Heidelberg/DE
- IMBIS: Imaging biomarkers information system for medical images post-processing and structured reporting
  A. Alberich-Bayarri; Valencia/ES
- Fully automatic estimation of film-based breast percentage density separate out postmenopausal hormone replacement treatment effects as well as expert’s estimation
  K. Petersen; Frederiksberg/DK
- CT colonography: Accurate registration of prone and supine endoluminal surfaces of the colon
  T.E. Hampshire; London/UK
- Optimised workflow for low dose thoracic CT lung cancer screening: automated detection, measurement, temporal matching and volumetry and mass analysis, individualised prediction of cancer risk, structured reporting with follow-up recommendation
  C. Jacobs; Nijmegen/NL

**Software demonstrations**

‘Oncological image analysis’

**Thursday, March 7, 15:30–16:30, Room U**

**Friday, March 8, 12:00–13:00, Room U**

**Setting:**
- One lecture (oral presentation) per topic (90 minutes)
- Two software demonstration sessions per topic: hands-on experience of the techniques and tools.

The first session is right after the oral presentation (60 minutes); a second session is held the next day at 12:00–13:00.

**Programme/Schedule:**

**Thursday, March 7, 16:30–17:30, Room U**
Novel technology that shapes radiology:
EIBIR presents IMAGINE Scientific exchange get-together
Quantitative image analysis

**Oral presentations**

**Moderators:** EIBIR IMAGINE committee

- An automatic system for segmentation, matching, anatomical labelling and measurement of airways from CT images
  J. Petersen; Copenhagen/DK

- New algorithms for quantitative image analysis inspired by functional brain mechanisms
  B.M. Ter Haar Romeny; Eindhoven/NL

- Patterns in radiology: spatio-temporal image analysis in research and clinical application
  R. Donner; Vienna/AT

- QuantaVita for clinical practice: fully-automated quantitative MRI with normative ranges
  A. Cherubini; Catanzaro/IT

- BrainCON: graph theory based multimodal brain connectivity analysis and visualisation software;
  BrainMOD: multi-purpose software for 4-dimensional multimodal medical image analysis
  T. Spisák; Debrecen/HU

- The 3DSlicer open-source platform for segmentation, registration, quantitative imaging and 3D visualisation of biomedical image data
  S. Pujol; Boston, MA/US

**Software demonstrations 'Quantitative image analysis'**

**Friday, March 8, 15:30–16:30, Room U**

**Saturday, March 9, 12:00–13:00, Room U**

Image guided interventions and computer aided diagnosis

**Oral presentations**

**Moderators:** EIBIR IMAGINE committee

- Markerlessly tracking lung tumours during radiotherapy treatment using Align RT optical surrogate and motion model built from cone-beam CT on day of treatment
  J. McClelland; London/UK

- FUSIMO: A prototype for patient-specific prediction of focused ultrasound surgery in moving organs
  J. Strehlow; Bremen/DE

- SlicerRT – 3D Slicer based open-source toolkit for radiation therapy research
  C. Pinter; Kingston, ON/CA

- MRI guided prostate biopsy: a multiparametric, multireader, registration assisted, template based workflow
  A. Cherubini; Catanzaro/IT

- Automated labelling framework applied on full and partial spine CT scans
  J. Hladuvka; Vienna/AT

**Software demonstrations 'Image guided interventions and computer aided diagnosis'**

**Saturday, March 9, 15:30–16:30, Room U**

**Sunday, March 10, 12–13, Room U**
Rising Stars Programme

Basic Sessions

**Friday, March 8, 08:30–10:00, Studio 2013**
Basic Session on Cardiac Radiology

- Imaging of myocardial infarction and viability
  M. Francone; Rome/IT
- Acute aortic syndrome
  A.J.B.S. Madureira; Porto/PT
- Cardiac CT in the Workup of Coronary Heart Disease
  U.J. Schoepf; Charleston, SC/US

**Friday, March 8, 10:30–12:00, Studio 2013**
Basic Session on Neuroradiology

- Aging, degeneration, and inflammation in the brain: an imaging perspective
  B. Gómez-Ansón; Barcelona/ES
- Is the Circle of Willis a circle?
  H.R. Jäger; London/UK
- CNS Infections
  M.M. Thurnher; Vienna/AT

**Sunday, March 10, 08:30–10:00, Studio 2013**
Basic Session on Interventional Radiology

- Management of aortic aneurysm and dissection
  R. Morgan; London/UK
- Overview of the development of interventional radiology techniques
  B. Ganai; Newcastle/UK
- Embolisation of liver malignancies
  M.A.A.J. van den Bosch; Utrecht/NL

Student Sessions

**Friday, March 8, 14:00–15:30, Studio 2013**
Student Session 1

- Provisional reporting – maintaining high standards in radiology
  F. Seker; Mannheim/DE
- Provisional reporting – radiology versus emergency doctors
  R. Coroiu; Covasna/RO
- Provisional reporting – The key for diagnosis of polytrauma patients
  J. Lee; Seoul/KR
- With the patient; let us establish a rapport
  K. Song; Seoul/KR
- Theory and practice in medical education
  M. Aleksandrova-Moiseja; Riga/LV

**Friday, March 8, 16:00–17:30, Studio 2013**
Student Session 2

- Theory vs. practice
  V. Nechaev; Moscow/RU
- The imaging professional of the future: how can tasks be distributed?
  Z. Demeter; Nyíregyháza/HU
- Theory and practice – supposed dichotomy – exemplifying the practical role of MRI in diagnosing knee injuries
  C.G. Iacoban; Baia Mare/RO
- MRI contrast agents: what radiographers-in-training need to know
  C. Fraga Piñeiro; Vigo/ES
- Radiographer students’ role in large-scale research projects of the European community: my educational perspective
  M. Breikss; Riga/LV
Rising Stars Programme

Saturday, March 9, 08:30–10:00, Studio 2013

Student Session 3

- CT, MRI, US or x-rays for blunt trauma in pregnancy
  J. Bojarovska; Riga/LV
- Cervical trauma: is plain x-ray still necessary?
  H.A. Hanelore; Bistrita/RO
- Utilisation of radiological examinations in patients with trauma
  E. Dappa; Pfungstadt/DE
- Can the anatomy of the heart be taught using reconstructed CT images? A pilot study
  M. Kolossvary; Budapest/HU
- Scaphoid and cervical spine fractures: are plain x-rays really enough?
  D. Grant; Aylesbury/UK

Saturday, March 9, 10:30–12:00, Studio 2013

Student Session 4

- New algorithm for treatment of trauma patients required: considering total body imaging instead of plain x-ray as initial management
  H. Emich; Mannheim/DE
- Post-mortem CT characteristics and its influence on virtual autopsy
  J.H. van Mourik; Amsterdam/NL
- Implementing student to student mentorship in the Faculty of Medicine from ‘Grigore T. Popa’ University of Medicine and Pharmacy, Iasi
  G.-E. Gilca; Iasi/RO
- Peer teaching for sonographic and orthopaedic assessment of the large joints
  B.J. Neubauer; Vienna/AT
- Occupational exposure in interventional procedures: do active dosimeters influence professional behaviour?
  C. Paulo; Coimbra/PT

Sunday, March 10, 14:00–15:00, Studio 2013

Final Student Session

The four best student presenters will be awarded by the ESR during this session.

Student Hands-on Workshops on Ultrasound
In cooperation with Sono4You

After last year’s success, hands-on workshops exclusively for students will again be held at ECR 2013.

An expert team of tutors will lead the students through the workshops, which will include six different workstations to give every participant the chance to familiarise themselves with the wide range of possibilities with ultrasound.

- **Workshop 1**: Friday, March 8, 10:00–12:00
- **Workshop 2**: Friday, March 8, 14:00–16:00
- **Workshop 3**: Saturday, March 9, 16:00–18:00
- **Workshop Advanced**: Sunday, March 10, 16:00–18:00

Suitable for advanced students and residents.
All workshops take place in Room X (1st level).

Registration:
These workshops are fully booked. Places may become available at short notice onsite.
How to biopsy with US guidance

Coordinator: G. Mostbeck; Vienna/AT
Speakers: J.-M. Correas; Paris/FR
G. Mostbeck; Vienna/AT
W. Pokieser; Vienna/AT
L. Solbiati; Busto Arsizio/IT
Instructors: F. Deschamps; Villejuif/FR
H. Kopf; Vienna/AT
G. Mauri; Busto Arsizio/IT
W. Pokieser; Vienna/AT
H. Schuster; Vienna/AT

This practical course teaches participants the fundamentals of US-guided biopsy. US-guided biopsy is faster, less invasive and less expensive than surgical biopsy and technically less demanding compared to CT and MR guidance. Tissue acquisition is performed with aspiration needles and/or automated large-core needles and biopsy guns. The choice of the needle depends on the lesion type as well as the pre-test probability of a specific malignancy. This practical course reviews indications, patient preparation, techniques, material preparation and contraindications of US-guided biopsy. Participants will work on phantoms to learn the device-related technical aspects of the performance, how to prepare the patient and percutaneous biopsy device, and how to adequately approach a lesion. State-of-the-art equipment, including different automated large core needles and/or guns will be available. The practical training courses are organised to allow time for each participant to perform interventions under expert supervision. It is recommended to follow the introductory lectures before entering the practical training courses.

Learning objectives
1. To know the indications and contraindications and the technical requirements to perform US-guided biopsy procedures.
2. To know requirements for patient preparation, selection of material and specimen preparation for optimal results as well as management of complications.
3. To become familiar with the handling of needles, scan-heads and biopsy guns.

Registration
The number of participants for each course is limited. Pre-registration has been arranged according to the order in which applications were received. Registration will be possible onsite if seats are still available. Please register in front of Room X, 20 minutes before the start of the course. Please note that an extra fee of €50 per participant is charged for this course. Attendance of the lecture session on Monday morning is mandatory in order to participate in the pre-registered practical training courses.

Introductory lectures
- Introduction: why choose US for biopsy guidance?
  G. Mostbeck; Vienna/AT
- All you need to know: protocols, patient preparation and consent, needles and guns, aspiration vs. core, indications and contraindications
  J.-M. Correas; Paris/FR
- Do we always need the pathologist onsite? What is ‘enough’ material? Specimen preparation and handling
  W. Pokieser; Vienna/AT
- Image fusion: when do we need it?
  L. Solbiati; Busto Arsizio/IT

Schedule

Saturday, March 9
SK 826 08:30-10:00 Introductory Lectures (Room Z, 2nd level)
SK 926 10:30-12:00 Practical Training Course
SK 1026 14:00-15:30 Practical Training Course

Sunday, March 10
SK 1326 10:30-12:00 Practical Training Course

All courses take place in Room X (1st level).
**Image-Guided Tumour Ablation: How to do it**

**Coordinators:** D.J. Breen; Southampton/UK, M.H. Fuchsjäger; Graz/AT

**Speakers:**
- **Liver Ablation**
  - D.J. Breen; Southampton/UK
  - L. Crocetti; Pisa/IT
  - T. Helmberger; Munich/DE
  - P.L. Pereira; Heilbronn/DE

- **Breast Ablation**
  - B. Brkljačić; Zagreb/HR
  - E. Cossu; Rome/IT
  - M.H. Fuchsjäger; Graz/AT

**Instructors:**
- **Liver Ablation**
  - D. Alcorn; Glasgow/UK,
  - P. Almeida; Coimbra/PT,
  - E.M. Anderson; Oxford/UK,
  - R. Bale; Innsbruck/AT,
  - D.J. Breen; Southampton/UK,
  - X. Buy; Strasbourg/FR,
  - R. Illing; London/UK,
  - J. Tacke; Passau/DE

- **Breast Ablation**
  - E. Bonanno; Rome/IT,
  - E. Cossu; Rome/IT,
  - M.H. Fuchsjäger; Graz/AT,
  - G. Ivanac; Zagreb/HR,
  - A. Malich; Nordhausen/DE,
  - H. Schöllnast; Graz/AT

This practical course reviews indications, advantages, limitations and controversial issues in percutaneous image-guided ablation of liver and breast lesions under multimodality imaging guidance. Participants will work on phantoms not only to learn the device-related technical aspects of the performance but also how to choose the adequate guidance method, how to prepare the patient and the percutaneous ablation device, and how to adequately approach the lesion. Oncological as well as quality assurance aspects will be emphasised. State-of-the-art equipment, including different ablation devices (Radio-frequency-, microwave-, cryo-Ablation, irreversible electroporation), is available; the practical courses are organised to allow time for each participant to perform interventions under expert supervision. Participants are required to attend the complete practical course (lectures and practical course).

**Learning objectives**
1. To understand the range of ablation technologies currently on offer, their surgical properties, merits and limitations.
2. To comprehend the indications and limitations of percutaneous image-guided tumour ablation.
3. To achieve appropriate case selection and understand the interface with resection and chemo/radio-embolisation.
4. To learn how to plan an appropriate treatment strategy to achieve optimal clinical results.
5. To plan appropriate follow-up and participate fully in multi-disciplinary patient management.
6. To perform image-guided tumour ablation under ultrasound and guidance in accordance to international standards.

**Registration**
The number of participants for each course is limited. Pre-registration has been arranged according to the order in which applications were received. Registration will be possible onsite if seats are still available. Please register in front of Room Y, 20 minutes before the start of the course. Please note that an extra fee of €50 per participant is charged for this course.

Attendance of the lecture sessions on Friday morning is mandatory in order to participate in the pre-registered practical training courses.

**Introductory lectures**

**Theoretical introduction: liver ablation**
- Understanding ablation devices and treatment strategies
  - D.J. Breen; Southampton/UK
- Optimised outcomes in hepatocellular carcinoma ablation
  - L. Crocetti; Pisa/IT
- Optimised outcomes in ablation of colorectal metastases
  - T. Helmberger; Munich/DE
- Outcomes: making the case for image-guided ablation in the multidisciplinary patient management
  - P.L. Pereira; Heilbronn/DE

**Theoretical introduction: breast ablation**
- Indications, patient selection and limitations for imaging-guided breast ablation
  - B. Brkljačić; Zagreb/HR
- Technical considerations: guidance modalities, treatment devices
  - M. Fuchsjäger; Graz/AT
- Practical considerations: multidisciplinary patient management
  - E. Cossu; Rome/IT

**Schedule**

**Friday, March 8**
- SK 427 08:30–10:00 Introductory Lectures (liver ablation; Room Z)
- SK 527 10:30–12:00 Introductory Lectures (breast ablation; Room Z)
- SK 627 14:00–15:30 Liver ablation
- SK 727 16:00–17:30 Breast ablation

**Saturday, March 9**
- SK 927 10:30–12:00 Liver ablation
- SK 1027 14:00–15:30 Breast ablation
- SK 1127 16:00–17:30 Liver ablation

**Sunday, March 10**
- SK 1327 10:30–12:00 Breast ablation
- SK 1427 14:00–15:30 Liver ablation
- SK 1527 16:00–17:30 Breast ablation

All practical training courses will take place in Room Y (1st level).
Florian Boesch in Radamisto by Georg Friedrich Händel
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More about opera in Vienna:
www.myESR.org/arts_culture
Satellite Symposia

Thursday, March 7, 10:30–11:30, Studio 2013
Satellite Symposium organised by Siemens Healthcare

SY 1: Advanced multimodality breast image reading
Moderator: T. Hartley; Erlangen/DE

- Place of digital breast tomosynthesis in diagnostic investigation of breast lesions: old and new paradigms
  C. Van Ongeval; Leuven/BE
- Place of breast MRI in diagnostic investigation of breast lesions
  E. Wenkel; Erlangen/DE
- Panel Discussion

Thursday, March 7, 12:30–13:30, Room 6/H
Satellite Symposium organised by SuperSonic Imagine

SY 2: The benefits Ultrafast™ imaging brings to ultrasound
Moderator: J. Souquet; Aix-en-Provence/FR

- Advantages and limitations of ShearWave™ elastography for imaging prostate cancer and guiding biopsy
  P.S. Zoumpoulis; Athens/GR
- Benefits of UltrafastTM Doppler in the clinical workflow
  G. Ivanac; Zagreb/HR
- Experiences with the Aixplorer and ShearWave™ elastography for the staging of liver fibrosis
  V. Vilgrain; Clichy/FR
- Advances in breast imaging with ShearWave™ elastography
  F.K.W. Schäfer; Kiel/DE

Thursday, March 7, 12:30–13:30, Room I/K
Satellite Symposium organised by Bayer Healthcare

SY 3: New insight in breast cancer imaging
Moderator: J. Camps Herrero; Valencia/ES

- Breast MRI for screening breast cancer, why, who and when?
  L. Umutlu; Essen/DE
- Overtreatment due to breast MRI – a threat, a myth, or both?
  C.K. Kuhl; Aachen/DE
- MIPA study: study design, goals, rollout
  F. Sardanelli; Milan/IT
- Panel Discussion

Thursday, March 7, 12:00–13:30, Studio 2013
Satellite Symposium organised by Siemens Healthcare

SY 4: Challenges in breast imaging
Moderator: J. Barkhausen; Lübeck/DE

- 3D automated breast ultrasound: accuracy and diagnostic potentials
  M.J.C.M. Rutten; s’Hertogenbosch/NL
- High image quality with lower dose mammography
  D. Uhlenbrock; Dortmund/DE
- Breast imaging from a pathologist’s perspective
  A. Hartmann; Erlangen/DE
- MR breast in clinical routine
  W.A. Kaiser; Jena/DE
- Panel discussion

Thursday, March 8, 12:15–13:30, Room D1
Satellite Symposium organised by Bayer HealthCare

SY 6: 25 years of contrast-enhanced MRI: there is more to see!
Moderator: F. Caseiro-Alves; Coimbra/PT

- Contrast enhanced MRI: illuminating the shadows
  F. Caseiro-Alves; Coimbra/PT
- Optimising MRI in CNS for treatment planning
  J. Provenzale; Durham, NC/US
- The role of contrast in breast MRI
  F. Pediconi; Rome/IT
- Cardiovascular MR – assessment of viability today and tomorrow
  J. Schulz-Menger; Berlin/DE
- Primovist®-enhanced MRI in the preoperative assessment of liver function
  J.M. Lee; Seoul/KR
Satellite Symposia

Friday, March 8, 12:30–13:30, Room G/H
Satellite Symposium organised by Bracco

SY 7: Breast MRI: where are we, and where are we going?
Moderator: T.H. Helbich; Vienna/AT
- Current and future role of breast MRI
  C.K. Kuhl; Aachen/DE
- Challenges to contrast-enhanced breast MRI: pros and cons
  T.H. Helbich; Vienna/AT
- Contrast protocols
  F. Sardanelli; Milan/IT

Friday, March 8, 12:30–13:30, Room I/K
Satellite Symposium organised by GE Healthcare

SY 8: Evidence of avant-garde MR
Moderator: D. Pickuth; Saarbrücken/DE
- Sharing GE MR vision and future
  R. Hausmann; Waukesha, WI/US
- Innovativ technology: the clinical application of silent MR
  A. van der Lugt; Rotterdam/NL
- Getting closer to metallic implants
  M. Padrón; Madrid/ES

Friday, March 8, 12:30–13:30, Room L/M
Satellite Symposium organised by Siemens Healthcare

SY 9: Pioneering futures in ultrasound
Moderator: P.S. Sidhu; London/UK
- Strain imaging in the breast – with a focus on the new VTIQ technology
  C.S. Balleyguier; Villejuif/FR
- Ultrasound study of the pancreas with CPS (CEUS) and ARFI (elastography): improving the diagnosis of pancreatic tumours
  M. D’Onofrio; Verona/IT
- Image fusion: is this something we need?
  A. Nilsson; Uppsala/SE

Saturday, March 9, 12:30–13:30, Room E1
Satellite Symposium organised by Bracco

SY 11: Personalised CT imaging: a patient centric approach
Moderator: M. Prokop; Nijmegen/NL
- Tailoring CT exams: when and how?
  C. Loewe; Vienna/AT
- How to balance radiation dose and diagnostic yield?
  H.-C. Becker; Munich/DE
- What if the patient is at risk?
  M.-F. Bellin; Le Kremlin-Bicêtre/FR

Saturday, March 9, 12:30–13:30, Room E2
Satellite Symposium organised by Siemens Healthcare

SY 12: Leading. With MAGNETOM.
Moderator: T.J. Vogl; Frankfurt a. Main/DE
- Leading. With MAGNETOM.
  N. Bolle; Erlangen/DE
- Novel imaging techniques in abdominal imaging
  H.J. Michaely; Mannheim/DE
- Sustainability in a complex healthcare environment
  T.J. Vogl; Frankfurt a. Main/DE

Saturday, March 9, 12:30–13:30, Room F2
Satellite Symposium organised by GE Healthcare

SY 13: Developing innovative breast care solutions to improve clinical confidence
Moderator: R.C. Sigal; Velizy/FR
- Case clarification with digital breast tomosynthesis versus mammography special views
  A. Stork; Düsseldorf/DE
- Contrast enhanced spectral mammography versus breast MRI: clinical experience
  E.M. Fallenberg; Berlin/DE
- New frontiers of advanced breast ultrasound
  A. Mundinger; Osnabrück/DE
- Role of MR DWI in breast cancer: correlation with histopathology
  V. Martinez de Vega; Madrid/ES
Saturday, March 9, 12:30–13:30, Room G/H
Satellite Symposium organised by Guerbet

SY 14: Combining high tolerance with high diagnostic performance in contrast enhanced MRI

**Moderator:** S.O. Schönberg; Mannheim/DE

- **Introduction**
  S.O. Schönberg; Mannheim/DE

- **Tolerance of MR contrast agent in at risk patients**
  G. Deray; Paris/FR

- **Optimal gadolinium concentration with high diagnostic accuracy**
  M. Lell; Erlangen/DE

- **MRI follow-up after kidney cancer cryoablation**
  E. de Kerviler; Paris/FR

- **Questions and conclusion**
  S.O. Schönberg; Mannheim/DE

Saturday, March 9, 12:30–13:30, Room I/K
Satellite Symposium organised by Philips Healthcare

SY 15: Transforming healthcare through innovative MR technology

**Moderator:** J. van den Heuvel; Eindhoven/NL

- **Imaging in cancer: multi-parametric whole-body and prostate imaging**
  S. Punwani; London/UK

- **New MR imaging approaches in assessing the aging brain**
  M.A. van Buchem; Leiden/NL

Saturday, March 9, 12:30–13:30, Room L/M
Satellite Symposium organised by Philips Healthcare

SY 16: News in mammography: spectral imaging in mammography screening

**Moderator:** M. Danielsson; Solna/SE

- **Experiences of MicroDose in tailored breast cancer screening program including women between 40–49 years**
  P. Panizza; Milan/IT

- **Latest development in mammography: non-invasive single-shot spectral imaging**
  S. Suryanarayanan; Andover, MA/US

- **Spectral lesion evaluation: will it be possible to distinguish cysts from solid masses on the screening mammogram?**
  M.G. Wallis; Cambridge/UK

- **Questions**

Saturday, March 9, 14:00-14:30, Room N/O
Mini Satellite Symposium organised by Philips Healthcare

MSY 1: Transforming healthcare with CT

**Moderator:** L. De Vries; Amsterdam/NL

- **Clinical outcomes of novel CT reconstruction techniques**
  E.E.J.G. Coche; Brussels/BE

Saturday, March 9, 14:00–15:30, Room C
Satellite Symposium organised by Hologic

SY 17: Celebrating the evolution of breast tomosynthesis: from research to large-scale, population-based screening programs, to advanced applications

**Moderator:** A. Smith; Bedford, MA/US

- **A review of the evolution of breast tomosynthesis**
  A. Smith; Bedford, MA/US

- **The Oslo clinical tomosynthesis screening experience**
  P. Skaane; Oslo/NO

- **Initial experience with tomosynthesis biopsy**
  D. Bernardi; Trento/IT

Saturday, March 9, 14:00–15:30, Room E1
Satellite Symposium organised by Toshiba

SY 18: Clinical advances in multimodality applications – new perspectives in perfusion and fusion imaging

**Moderator:** B. Hamm; Berlin/DE

- **The impact of smart fusion on the diagnostic outcome**
  T. Fischer; Berlin/DE

- **CEUS of the kidney: from new technology to patient management improvement**
  J.-M. Correas; Paris/FR

- **Liver and pancreatic perfusion using Aquilion ONE vision**
  J. Hermans; Nijmegen/NL

Saturday, March 9, 14:00–15:30, Room F2
Satellite Symposium organised by Toshiba

SY 19: Multimodal imaging for neuro applications

**Moderator:** P.A. Brouwer; Leiden/NL

- **Neuro applications using Aquilion ONE**
  P.A. Brouwer; Leiden/NL

- **Advanced neuroimaging at 3T with a 32ch head coil**
  T. Okada; Kyoto/JP

- **Neurological interventions using Toshiba Infinix**
  H. Fransen; Gent/BE
Satellite Symposia

Saturday, March 9, 14:00–15:30, Room L/M
Satellite Symposium organised by GE Healthcare Nycomed
SY 20: CT and MR diagnostic capabilities and safety: new tendency
Moderators: V.N. Kornienko; Moscow/RU
I.E. Tyurin; Moscow/RU
• Low-dose and low-iodine CT coronary angiography
  V.E. Sinitsyn; Moscow/RU
• MRI safety – actual issues
  E. Mershina; Moscow/RU
• Brain – heart – axis
  R. Rienmüller; Graz/AT
• Russian radiology best practice – clinical experience sharing
  A. Lukianchenko; Moscow/RU
• GE Healthcare innovative solutions for modern healthcare
  V.I. Grischenko; Moscow/RU

Sunday, March 10, 12:30–13:30, Room C
Satellite Symposium organised by GE Healthcare
SY 21: Patient care and image quality: at the forefront of CT innovations and contrast media
Moderator: V.E. Sinitsyn; Moscow/RU
• Key properties of isosmolar contrast media
  R.P. Franke; Ulm/DE
• Optimising image quality and patient care in cardiac CT
  D. Andreini; Milan/IT
• Spectral imaging: clinical breakthrough in oncology
  P. Ardies; Malle/BE

Sunday, March 10, 12:30–13:30, Room G/H
Satellite Symposium organised by Samsung
SY 22: A new tool for detecting and diagnosing breast cancer: ultrasound ElastoScan™
Moderator: W. van de Vooren; Delft/NL
• Introduction to ElastoScan™
  W. van de Vooren; Delft/NL
• The positive influence of ElastoScan™ on early breast cancer detection
  V.F. Duda; Marburg/DE
• Has ElastoScan™ positively influenced the way of breast surgery?
  C. Kohler; Marburg/DE

Sunday, March 10, 12:30–13:30, Room L/M
Satellite Symposium organised by Philips Healthcare
SY 23: Transforming healthcare with ultrasound
Moderator: S.T. Elliott; Newcastle upon Tyne/UK
• Opening
• Sonoeastography of the liver: the clinical point of view
  C. Filice; Pavia/IT
• Results with ElastPQ in the assessment of diffuse liver disease
  G. Ferraioli; Pavia/IT
• Fusion imaging with contrast enhanced ultrasound in the abdomen
  A. Martegani; Como/IT
• Innovation in high resolution breast ultrasound
  D.A. Clevert; Munich/DE
• Questions and answers

Sunday, March 10, 12:30–13:30, Room N/O
Satellite Symposium organised by Bracco
SY 24: Cost-effectiveness and improvement of patient management with contrast enhanced ultrasound (CEUS)
Moderator: G.H. Mostbeck; Vienna/AT
• Implementation of CEUS in the daily practice of the imaging center
  M. Wüstner; Trier/DE
• CEUS in interventional radiology: clinical outcomes and impact on patient management
  E.M. Jung; Regensburg/DE
• Clinical and cost effectiveness of CEUS for liver imaging: the NICE diagnostics guidance
  T. Hoare; Newcastle Upon Tyne/UK
Industry Hands-on Workshops

Thursday, March 7 to Sunday, March 10,
Siemens Experience Lounge, Entrance Level

Industry Hands-on Workshops organised by Siemens Healthcare

Clinical experts will demonstrate how to better use and further benefit from our solutions for advanced multimodality reading. A special focus will be placed on the imaging software syngo.via. Benefit from experts' experience and receive an update on state-of-the-art techniques in computed tomography, magnetic resonance, molecular imaging and breast imaging. As a registered attendee for ECR 2013 these workshops are free of charge.

Thursday, March 7:
14:00–15:30: MRI breast reading and reporting
   W.A. Kaiser; Jena/DE
16:00–17:30: Digital breast tomosynthesis
   J. Barkhausen; Lübeck/DE

Friday, March 8:
10:00–11:30: CT Colonography
   T. Mang; Vienna/AT
12:00–13:30: Digital breast tomosynthesis
   J. Barkhausen; Lübeck/DE
14:00–15:30: Advanced orthopaedic hip and knee MRI
   R. Sutter; Zurich/CH
16:00–17:30: CT oncology
   A. Graser; Munich/DE

Saturday, March 9:
10:00–11:30: Multimodal prostate MRI
   M. Röthke; Heidelberg/DE
12:00–13:30: MRI and CT for imaging acute stroke
   Karl-Olof Loeyblad, Geneva
   P. Schramm; Göttingen/DE
14:00–15:30: Hybrid imaging in daily routine: SPECT-CT and PET-CT in orthopaedics and oncology
   C. von Gall; Erlangen/DE
16:00–17:30: Digital breast tomosynthesis
   J. Barkhausen; Lübeck/DE

Sunday, March 10:
10:00–11:30: CT Dual Energy
   M. Kerl; Frankfurt/DE
12:00–13:30: Hybrid imaging in daily routine: SPECT-CT and PET-CT in orthopaedics and oncology
   C. von Gall; Erlangen/DE
14:00–15:30: CT cardiac
   R. Bauer; Frankfurt/DE
16:00–17:30: MRI breast reading and reporting
   W.A. Kaiser; Jena/DE

Thursday, March 7 to Sunday, March 10,
Hologic Hands-on Workshop Room, 1st Level

Industry Hands-on Workshops organised by Hologic

Hologic is offering a series of 75-minute educational sessions for radiologists throughout the congress. The workshops include hands-on experience reading 3D breast tomosynthesis images in combination with conventional and synthesised 2D images. Brief lectures will provide an overview of the technologies prior to the hands-on. This programme is intended for radiologists interested in learning more about this breast cancer screening and diagnosis technology.

Hologic Breast Tomosynthesis Hands-on Workshops

Schedule

Thursday, March 7:
13:00–14:15
15:00–16:15

Friday, March 8:
10:15–11:30
13:45–15:00
15:30–16:45

Saturday, March 9:
10:15–11:30

Sunday, March 10:
10:15–11:30
13:45–15:00
15:30–16:45
More about concerts in Vienna: www.myESR.org/arts_culture
Postgraduate Educational Programme

Session numbers are prefixed by CC, E³, EF, EM, HL, MC, MS, NH, OL, PC, RC, SA, SF, TF

Presentation numbers are prefixed by the letter A

Key to Abbreviations
CC  Categorical Course
E³  European Excellence in Education
EF  EFOMP Workshop
EM  ESR meets Session
HL  Honorary Lecture
MC  Mini Course
MS  Multidisciplinary Session
NH  New Horizons Session
OL  Opening Lecture
PC  Professional Challenges Session
RC  Refresher Course
SA  State of the Art Symposium
SF  Special Focus Session
TF  Radiology Trainees Forum
12:30–13:30 Room N/O

The Beauty of Basic Knowledge: Head and Neck
MC 24A  A taste of the oral cavity and salivary glands

12:30
A-001  A taste of the oral cavity and salivary glands
A. Borges, Lisbon/PT

Learning Objectives:
1. To become familiar with the anatomy of the oral cavity and salivary glands.
2. To learn how to tailor imaging approaches to the patient’s clinical presentation.
3. To appreciate the main pathologic processes of the oral cavity and salivary glands.

12:30–13:30 Room P

The Beauty of Basic Knowledge: Musculoskeletal Imaging
MC 25A  Trauma

12:30
A-002  Trauma
A. Kassarjian, Majadahonda/ES

Learning Objectives:
1. To learn about the basic mechanisms of musculoskeletal trauma.
2. To become familiar with typical musculoskeletal injuries and injury patterns.
3. To understand the impact of different radiological methods in the trauma setting.

14:00–15:30 Room B

Interactive Teaching Session
E³ 220  Lung cancer

14:00
A-003  A. Detection
S. Gourtsoyianni, London/UK

Learning Objectives:
1. To learn which imaging techniques are appropriate for detecting lung cancer.
2. To learn about the most relevant imaging findings in lung cancer.
3. To understand the behaviour of lung cancer related to imaging.

14:45
A-004  B. Follow-up
V. J. Goh, London/UK

Learning Objectives:
1. To know the common features of lung cancer recurrence.
2. To learn how to establish follow-up protocols after treatment of lung cancer.

16:00–17:30 Room B

Interactive Teaching Sessions
E³ 320  Malignant pancreatic tumours

16:00
A-005  A. Solid tumours
W. Schima, Vienna/AT

Learning Objectives:
1. To learn how to differentiate tumours from other non-tumoural pathology.
2. To understand how to choose the proper imaging technology.
3. To appreciate how to determine resectability and extension of the tumour.
16:45
A-006  B. Cystic tumours
G. Morana, Treviso/IT

Learning Objectives:
1. To learn how to choose the proper imaging modality.
2. To understand the criteria of malignancy and benignity.
3. To learn how to follow-up the lesions.

16:00–17:30 Room C

GI Tract
RC 301  Staging and restaging of rectal and anal cancer

16:00
A-007  Chairman’s introduction
R. G. H. Beets-Tan, Maastricht/NL

16:05
A-008  A. Local staging of anal and rectal cancer and impact on initial therapeutic strategy
S. Gourtsoyianni, London/UK

Learning Objectives:
1. To learn about optimised MR techniques for rectal and anal cancer staging.
2. To become familiar with the role of endorectal ultrasound in anorectal cancer staging.
3. To understand basic TNM staging and assessment of the CRM on imaging.
4. To understand how imaging findings influence the initial therapeutic approach.

16:35
A-009  B. Assessment of rectal cancer response
L. Curvo-Semedo, Coimbra/PT

Learning Objectives:
1. To learn the rationale for following-up on patients after neoadjuvant chemoradiation.
2. To understand conventional imaging criteria for assessing tumour response.
3. To learn about new techniques for assessing response, including diffusion MRI and PET/CT.

16:55
A-010  C. Assessment of anal cancer response
V. J. Goh, London/UK

Learning Objectives:
1. To learn the rationale for restaging after therapy.
2. To know how to assess the tumour response with conventional imaging criteria.
3. To learn about new techniques for assessing response in anal cancer, including diffusion MRI and PET/CT.

Panel discussion:
17:15
What clinicians expect from us in rectal and anal cancer staging and restaging? How should we image patients?
Cardiac

RC 303  Cardiac imaging: the cutting edge
Moderator: E. Di Cesare; L'Aquila/IT

16:00 A-011  A. Cardiac MRI: do we need more than 1.5T?
B.J. Wintersperger; Toronto, ON/CA
Learning Objectives:
1. To learn about the differences between 1.5T and 3T cardiac MRI.
2. To understand the clinical applications of high-field cardiac MRI.
3. To become familiar with the problems of using high-field cardiac MRI in daily routine.

16:30 A-012  B. Cardiac CT: technique in 2020; where to next?
K. Nikolaou; Munich/DE
Learning Objectives:
1. To learn about the latest technical developments in state-of-the-art cardiac CT.
2. To explore what new developments will influence cardiac CT over the next few years.
3. To understand if what you need is a lot of rows, tubes or both for optimal cardiac CT.

17:00 A-013  C. Cardiac hybrid imaging: „One-Stop-Shop“
P.A. Kaufmann; Zurich/CH
Learning Objectives:
1. To understand the principles of cardiac hybrid imaging.
2. To learn about the diagnostic value of hybrid imaging.
3. To know about possible indications for performing hybrid imaging.

Molecular Imaging

RC 306  Molecular imaging in oncology
Moderator: O. Clément; Paris/FR

16:00 A-014  A. New PET-tracers for oncology
P.L. Choyke; Bethesda, MD/US
Learning Objectives:
1. To learn about the new specific tracers that can be used in oncologic patients.
2. To become familiar with their possible impact on patient management.
3. To understand their potential and limitations for practice.

16:30 A-015  B. Potential of MRI for molecular imaging in oncology
P.A. Kaufmann; Zurich/CH
Learning Objectives:
1. To become familiar with the different approaches to molecular imaging with MRI.
2. To understand the role of molecular imaging in oncology.
3. To learn about emerging MRI techniques for molecular imaging.

17:00 A-016  C. Emerging molecular imaging techniques
F.A. Gallagher; Cambridge/UK
Learning Objectives:
1. To become familiar with optical imaging techniques and probes.
2. To learn about the potential of targeted US contrast agents.
3. To appreciate emerging hybrid imaging techniques.

Multidisciplinary Session: Managing Patients with Cancer

MS 3  Colorectal liver metastases

16:00 A-017  Chairman’s introduction
V. Vilgrain; Clichy/FR
Session Objectives:
1. To learn about the prognostic factors of colorectal liver metastases.
2. To become familiar with the most common therapeutic strategies.
3. To understand the role of the multidisciplinary team in patients with colorectal liver metastases.

16:05 A-018  Role of imaging in the pretreatment assessment
V. Vilgrain; Clichy/FR
Learning Objectives:
1. To become familiar with imaging findings indicating surgical resectability.
2. To understand the role of CT and MR imaging in staging liver metastases.
3. To learn about the role of new imaging techniques in staging liver metastases.

16:20 A-019  Surgical resection of liver metastases: when and how
J. Belghiti; Clichy/FR
Learning Objectives:
1. To become familiar with surgical indications of liver metastases.
2. To understand treatment planning strategies.
3. To learn about prognostic factors for surgical candidates.

16:35 A-020  Chemotherapy and novel therapy in colorectal liver metastases: rationale, indications and results
S. Faivre; Clichy/FR
Learning Objectives:
1. To appreciate the rationale behind chemotherapy and novel therapy.
2. To learn about the most common protocols of chemotherapy and novel therapy.
3. To consolidate knowledge in treatment efficacy.

16:50 A-021  Role of image-guided treatment in colorectal liver metastases
A. Abdel-Rahman, A. Sibert, V. Barrau, Z. Ben Lakhdar, V. Vilgrain; Clichy/FR
Learning Objectives:
1. To learn about the most common image-guided treatments.
2. To understand advantages and drawbacks of each treatment.
3. To become familiar with the role of image-guided treatments.

17:05 Case presentation and discussion

Professional Challenges Session

PC 3  Bringing radiology to medical undergraduates

16:00 A-022  Chairman’s introduction: why does it matter?
S.J. Golding; Oxford/UK
Session Objectives:
1. To understand why radiologists need to make undergraduate teaching a priority.
2. To become familiar with the effect of teaching undergraduates on the student and the institution.
3. To appreciate the objectives with which the undergraduate should be taught.
**A-023** Establishing a radiological presence in the undergraduate curriculum  
R.N. Gibson; Melbourne/AU  
**Learning Objectives:**  
1. To understand the importance of radiology’s undergraduate profile.  
2. To understand the effect of a presence throughout the curriculum on education.  
3. To become familiar with the ways in which radiology’s curricular presence may be achieved at individual stages.

**A-024** Finding the time and resources in the radiology department  
J. del Cura; Bilbao/ES  
**Learning Objectives:**  
1. To be aware of the competing demands on departmental resources.  
2. To understand the available methods for creating time for teaching.  
3. To understand the physical resources that aid effective and efficient teaching.

**A-025** Involving the undergraduate with the radiology department  
P.A. Verstraete; Gent/BE  
**Learning Objectives:**  
1. To understand the effect of involvement in radiology on learning.  
2. To become familiar with the potential methods of undergraduate involvement.  
3. To understand the value and management of short-term and long-term attachments to the radiology department.

**A-026** How to ensure teachers are suitably trained  
F. Baggio, F. Merla, E. Napoli, I. Mattei; Seregno/IT  
**Learning Objectives:**  
1. To learn that teaching is a psychomotor skill with its own training requirements.  
2. To understand the importance of course design and methods of assessment to learning.  
3. To understand the ways in which radiological teachers may obtain training appropriate to their needs.

Panel discussion:  
**What needs to be done to overcome the constraints on radiologists?**

### Breast

**RC 302** Functional imaging of the breast  
Moderator: G. Esen; Istanbul/TR  

16.00  
**A-027** A. Contrast-enhanced mammography  
C.S. Ballesteros; E. Fahlenberg; S. Canale; E. Schrenk; Villejuif/FR, Berlin/DE  
**Learning Objectives:**  
1. To understand the underlying physical principles of contrast-enhanced mammography (CEM).  
2. To become familiar with different protocols.  
3. To appreciate the potential impact of CEM on every day clinical practice.

16.30  
**A-028** B. Ultrasound elastography  
A. Anriargou; Paris/FR  
**Learning Objectives:**  
1. To understand the basic principles of US elastography.  
2. To learn about the difference between strain and shear wave elastography and their respective results.  
3. To appreciate the additional value of US elastography to B-mode US.

16.05  
**A-029** C. MRI diffusion, perfusion and spectroscopy  
P.A.T. Baltzer; Verona/IT  
**Learning Objectives:**  
1. To understand the diagnostic value of diffusion weighted imaging (DWI) in its present clinical applications.  
2. To learn about the technical basics and potential use of MRI perfusion in the breast.  
3. To understand promises and challenges of MR spectroscopy in clinical practice.

### Genitourinary

**RC 307** Renal and adrenal tumours  
Moderator: B. Brkljacic; Zagreb/HR  

16.00  
**A-030** A. Adrenal masses, a practical approach  
G. Heinz-Peer; St. Pölten/AT  
**Learning Objectives:**  
1. To become familiar with the different imaging appearances of adrenal masses including pathological relation.  
2. To learn about the respective roles of US, CT and MR imaging in investigating small renal masses.  
3. To learn the main pitfalls in assessing small renal masses.

16.30  
**A-031** B. Staging renal cancer  
R. Pozzi-Mucelli; Verona/IT  
**Learning Objectives:**  
1. To recognize the CT/MRI/US findings for staging.  
2. To learn about the optimal imaging protocol for the diagnosis and staging of renal cancer.  
3. To understand treatment options and implications.

17.00  
**A-032** C. How to deal with small indeterminate renal masses  
O. Hélénon; Paris/FR  
**Learning Objectives:**  
1. To become familiar with the various appearances of small indeterminate renal masses.  
2. To learn about the respective roles of US, CT and MR imaging in investigating small renal masses.  
3. To learn the main pitfalls in assessing small renal masses.

### Chest

**RC 304** How I report  
Moderator: J. Cáceres; Barcelona/ES  

16.00  
**A-033** A. Bedside chest radiography  
R. Eibel; Schwerin/DE  
**Learning Objectives:**  
1. To learn a structured reporting approach.  
2. To understand key imaging findings in different clinical settings.  
3. To improve confidence by linking pattern recognition, interpretation and diagnosis.

16.30  
**A-034** B. CTA and MRA of the pulmonary arteries  
J.E. Wildberger; Maastricht/NL  
**Learning Objectives:**  
1. To learn more about recent improvements in CT and MR angiography.  
2. To learn a structured approach to reporting CTA or MRA.  
3. To become familiar with the role of CT angiography in comparison to MR angiography.
A-035 C. PET/CT

C. Keyzer; Brussels/BE

Learning Objectives:
1. To understand the basic principles of PET/CT using FDG.
2. To become familiar with physiologic FDG uptake and frequent pitfalls.
3. To learn about FDG PET/CT in non-oncologic and oncologic disorders and how to report.

16:00–17:30 Room L/M

Organs from A to Z: Heart

MC 322 Technical and anatomical fundamentals for imaging the heart

Moderator: A. de Roos; Leiden/NL

16:00 A-036 A. Anatomy: too many details in cardiac imaging?

A.J.B.S. Madureira; Porto/PT

Learning Objectives:
1. To learn about the detailed anatomy of the heart.
2. To learn about the anatomy of the thoracic vasculature and great vessels.
3. To get an overview of important incidental findings in cardiac imaging.

16:20 A-037 B. Examination protocols for imaging the heart: CT

H. Alkadhi; Zurich/CH

Learning Objectives:
1. To get an overview of different examination protocols.
2. To learn about various strategies in radiation dose optimisation.
3. To identify suitable clinical indications for cardiac CT.

16:40 A-038 C. Examination protocols for imaging the heart: MRI

N.L. Kelekis; Athens/GR

Learning Objectives:
1. To get an overview of different examination protocols.
2. To learn about typical cardiac MR artefacts and pitfalls.
3. To identify suitable clinical indications for cardiac MRI.

16:00–17:30 Room N/O

Interventional Radiology

RC 309 Percutaneous treatment of chronic back pain and sciatica

16:00 A-040 Chairman’s introduction

A.D. Kelekis; Athens/GR

16:05 A-041 A. Sacroiliac joint syndrome

D.J. Wilson; Oxford/UK

Learning Objectives:
1. To learn about relevant anatomy and clinical presentations of the syndrome.
2. To know more about the available treatments.
3. To learn about clinical results and possible further developments.

16:28 A-042 B. Facet syndrome

M. Gallucci; L’Aquila/IT

Learning Objectives:
1. To understand the difference between facet joint and disc disease.
2. To learn about different treatment options for facet disease.
3. To learn how to manage patients.

16:00–17:30 Room P

Vascular

RC 315 Vascular imaging in ischaemic stroke

Moderator: J. Hendrikse; Utrecht/NL

16:00 A-044 A. Intracranial atherosclerotic disease of carotid arteries

T. Jargjello; Lublin/PL

Learning Objectives:
1. To become familiar with appropriate imaging protocols for all imaging modalities and the pros and cons of each modality.
2. To learn about imaging signs of atherosclerotic disease in the carotid artery territory.
3. To learn about the classification of lesions and indications for treatment.

16:30 A-045 B. Vertebrobasilar atherosclerotic disease

L. Valvassori, M. Piano; Milan/IT

Learning Objectives:
1. To learn about the appropriate imaging protocol and the imaging signs of extracranial and intracranial atherosclerosis.
2. To learn about the epidemiology, symptomatology and natural history.
3. To learn about the classification of lesions and indications for treatment.

17:00 A-046 C. Dissection and vasculitis of intracranial and extracranial arteries

H.R. Jäger; London/UK

Learning Objectives:
1. To learn the imaging signs of dissection and different types of large/medium vessel vasculitis.
2. To learn about lesion morphology and haemodynamic consequences of dissection and vasculitis.
3. To learn about imaging protocols for detection of dissection and large/medium vessel vasculitis.

16:00–17:30 Room Q

Computer Applications

RC 305 New PACS architecture: decoupling image management from image navigation

16:00 A-047 Chairman’s introduction

H.U. Lemke; Berlin/DE

Session Objectives:
1. To introduce models of image management and workflow.
2. To present the evolution of image management outside of radiology (surgery, interventions etc.).
3. To discuss the technical requirements for better image sharing and distribution.
A-048  A. Image navigation and new PACS architecture
J. Reponen, Raahe/FI

Learning Objectives:
1. To learn about recent changes in PACS design and infrastructure.
2. To understand the role of data management in PACS architecture.
3. To become acquainted with different PACS architectures.
4. To understand technical, workflow and legal aspects of innovative technologies.

A-049  B. Intraoperative imaging for surgeons
A. Pietrabissa, L. Pugliese, A. Peri, F.P. Tinozzi, V. Ferrari, Pavia/IT, Pisa/IT

Learning Objectives:
1. To understand why surgeons need more intraoperative guidance.
2. To learn about the role of robotics and augmented reality in general surgery.
3. To become familiar with patient-specific simulation.
4. To appreciate the place of surgical training and accreditation.

A-050  C. Dismantling PACS: separating image viewing from the data storage and sharing
B. Gibaud, Rennes/FR

Learning Objectives:
1. To learn about strategic issues of generic image archiving and distribution.
2. To understand new concepts of independent ‘front ends’ of PACS.
3. To become familiar with new examples of PACS implementation based on component architecture.
4. To appreciate new strategies of PACS architecture and migration.

Panel discussion:
How should we manage our images today?

16:00–17:30 Room Z
ESR Radiation Protection Session
Security scanners at airports: are they safe?
Moderators: J. Damilakis, Iraklion/GR, P. Vock, Berne/CH

16:00
A-051  X-ray backscatter security scanners: principles, performance and potential health risks
J. Damilakis, Iraklion/GR

Learning Objectives:
1. To become familiar with the technological principles of security scanners.
2. To learn about the detection performance of x-ray security scanners.
3. To understand the radiation doses and risks from x-ray backscatter security scanners.

16:30
A-052  Cumulative low-level x-ray radiation exposure: is it harmful?
P. Vock, Berne/CH

Learning Objectives:
1. To learn about risks of x-ray exposure in relation to age.
2. To appreciate the difference between individual and collective radionogenic risks.
3. To understand issues related to cumulative radiation doses and possible risks from medical x-ray screening procedures.

17:00
A-053  Security scanners using non-ionising radiation: current status and trends for development
M. Kemp, Cambridge/UK

Learning Objectives:
1. To understand the current status of non-ionising radiation technology for the detection of explosives and other threats.
2. To learn about trends for development of millimetre-wave and terahertz technology.
3. To learn about the challenges and limitations of these technologies.
Abdominal Viscera

RC 401 Pitfalls in interpretation of pancreatic imaging
Moderator: H.-J. Brambs, Ulm/DE

08:30 A-055 A. Pancreatic cancer or pancreatitis?
B.J. Op de Beeck, A. Snoeckx, M. Spinhoven, R. Salgado, P.M. Parizel; Antwerp/BE
Learning Objectives:
1. To become familiar with the common benign mimickers of pancreatic malignancy.
2. To learn how to differentiate between benign and malignant lesions.
3. To know the limitations and complementary roles of CT and MR.

09:00 A-056 B. How can we differentiate cystic neoplasms from pseudocysts?
T. Denecke; Berlin/DE
Learning Objectives:
1. To learn the most common cystic lesions of the pancreas.
2. To know typical imaging findings of pseudocysts and cystic tumours.
3. To become familiar with imaging elements that help differentiate between cystic lesions.

09:30 A-057 C. How to manage incidental findings
C. Triantopoulou; Athens/GR
Learning Objectives:
1. To learn how to differentiate between benign and malignant cystic lesions.
2. To know the correct management of unclassified cystic lesions through imaging.
3. To become familiar with the reference imaging criteria suggesting treatment.

Oncologic Imaging

RC 416 MR imaging for prostate cancer management: the essential guide for radiologists

08:30 A-058 Chairman’s introduction
H.-P. Schlemmer; Heidelberg/DE

08:35 A-059 A. Clinical challenges: how to treat prostate cancer
B.A. Hadaschik; Heidelberg/DE
Learning Objectives:
1. To understand how diagnosis is established through PSA evaluation and biopsy.
2. To learn about different treatment options.

08:58 A-060 B. The radiologist’s contribution: how to detect and characterise a tumour
A.R. Padhani; Northwood/UK
Learning Objectives:
1. To understand how multiparametric MRI detects prostate cancer.
2. To learn how to perform, interpret and communicate multiparametric MRIs.
3. To learn how to support image guided biopsy.
4. To understand the need for the standardisation of MRI protocols and reports.

09:21 A-061 C. The radiologist’s influence on management. Staging prostate cancer: how it impacts on treatment selection
H. Hricak; New York, NY/US
Learning Objectives:
1. To learn how advanced MR techniques improve staging.
2. To learn how imaging impacts on clinical management (treatment selection and response monitoring).
3. To understand the need for the implementation of MRI in clinical practice and clinical trials.
4. To understand the need for specialised training of radiologists in prostate cancer imaging.

Panel discussion:
Is MRI an integral part of the clinical routine?
State of the Art Symposium

SA 4 Diffusion-weighted imaging (DWI) of the abdomen

08:30 A-068 Chairman’s introduction
Y Menu, Paris/FR

Session Objectives:
1. To understand DWI principles.
2. To learn about appropriate protocols for DWI of the abdomen.
3. To learn how to analyse and report DWI images.
4. To understand the clinical value of DWI for detection, characterisation and prognostic evaluation.

08:35 A-069 DWI of the abdomen: a tutorial for beginners
H.C. Thoeny, Berne/CH

Learning Objectives:
1. To understand the principles of DWI.
2. To learn the different acquisition protocols (optimal b values, optimal sequences) and their advantages and disadvantages.
3. To learn how DWI can be integrated into acquisition protocols, and whether it precludes the need for other sequences.
4. To learn how to interpret ADC maps and values.

08:55 A-070 Liver and pancreas: answering burning questions
F. Caseiro-Alves, Coimbra/PT

Learning Objectives:
1. To understand the signals of lymph nodes on DWI sequences, and to identify the correlation between histological changes and DWI signal.
2. To learn the different acquisition protocols (optimal b values, optimal sequences) and their advantages and disadvantages.
3. To compare DWI and PET and understand their respective roles.
4. To understand how iron and fat could be misleading issues.

09:15 A-071 DWI of abdominal lymph nodes: PET competitive or just pseudo?
S. Gourtsoyianni, London/UK

Learning Objectives:
1. To understand the signal of lymph nodes on DWI sequences, and to identify the correlation between histological changes and DWI signal in benign and malignant lymph nodes involvement.
2. To learn whether or not ADC value is helpful for characterisation.
3. To compare DWI and PET and understand their respective roles.
4. To open the door to the future combination of PET and MRI.

09:35 Clinical cases

Foundation Course: Neuroimaging

E3 420 The orbit, the petrous bone and the sella
Moderator: B. De Foer; Antwerp/BE

08:30 A-072 Imaging of the orbit: the globe and conal lesions
P.C. Maly Sundgren, Lund/SE

Learning Objectives:
1. To understand the embryology and imaging findings of the most common malformations of the orbit.
2. To learn about space occupying lesions and the differential diagnosis of tumours and inflammatory conditions.
3. To become familiar with the role of conventional and advanced MR sequences in the diagnostic approach of lesions in the orbit.

09:00 A-073 B. The petrous bone
P. Veillon, Strasbourg/FR

Learning Objectives:
1. To understand the normal imaging anatomy.
2. To learn about the role of CT and MRI in the evaluation of congenital malformations.
3. To become familiar with the most common acquired lesions of the middle and inner ear.

09:30 A-074 C. Sella and parasellar pathology
P. Deaporzio, Brescia/IT

Learning Objectives:
1. To consolidate knowledge about the normal anatomy and the age related patterns of the normal pituitary gland.
2. To learn how to evaluate congenital and acquired lesions of the sella and parasellar region.
3. To become familiar with imaging protocols.

08:30–10:00 Room F1

Multidisciplinary Session:
Managing Patients with Cancer

MS 4 Hepatocellular carcinoma

08:30 A-075 Chairman’s introduction
B. Sangro, Pamplona/ES

Session Objectives:
1. To learn the current management of HCC as laid out in scientific guidelines.
2. To identify those areas of uncertainty, where multidisciplinary teams are needed most.
3. To understand the basis of personalised care for HCC patients and the need for multidisciplinary teams.

08:35 A-076 Abdominal radiology
A. Benito, Pamplona/ES

Learning Objectives:
1. To learn which imaging procedures should be considered standard of care for staging HCC and which are potential improvements that await confirmation.
2. To understand the limitations of imaging in the diagnosis and characterisation of response to locoregional and antiangiogenic therapies.
3. To learn about the scientific evidence supporting the use of percutaneous ablation procedures other than radiofrequency.

08:50 A-077 Interventional radiology
J.I. Bilbao, Pamplona/ES

Learning Objectives:
1. To learn about locoregional intraarterial therapies currently being used for HCC and the rationale behind their use.
2. To become familiar with patient selection for embolising procedures prior to and after angiographic evaluation.
3. To learn some tips that may help reduce side effects and prevent complications of transarterial therapies.
4. To understand how IRs can help patients with unresectable tumours being evaluated for resection.

09:05 A-078 Surgery
F. Pardo, Pamplona/ES

Learning Objectives:
1. To learn about the main factors behind the resectability of HCC.
2. To learn about the evolving criteria for liver transplantation.
3. To understand the potential role of radiologists in the intraoperative or postoperative management of HCC.
4. To learn about complications of locoregional therapies (percutaneous ablation or intraarterial therapies) that could complicate resection or transplantation.
Learning Objectives:
1. To learn the basis of tumour staging in HCC and the general treatment paradigm.
2. To learn about the discrepancies between different treatment guidelines and clinical practice.
3. To become familiar with systemic anticancer agents and their impact on locoregional and surgical treatment of HCC.

09:35 Case presentation and discussion
08:30–10:00 Room F2

Special Focus Session
SF 4a „MRI of the lung: to go?”

08:30 A-080 Chairman’s introduction: „Apéritif
H.-U. Kauczor; Heidelberg/DE

Session Objectives:
1. To learn how to do MRI of the lung in clinical routine.
2. To understand the rationales and potential clinical applications of MRI of the lung.
3. To understand the prerequisites for acceptance of MRI of the lung by our clinical colleagues.

08:33 A-081 The sequence buffet
J.M. Wild; Sheffield/UK

Learning Objectives:
1. To learn about the basic physics of MR imaging of protons in the lung.
2. To understand the role of different magnetic field strengths and parallel receiver coils.
3. To appreciate the potential of fast imaging sequences for imaging the lung.

08:48 A-082 Preparing your menu
J. Biederer; Heidelberg/DE

Learning Objectives:
1. To learn how to combine MR sequences with a comprehensive imaging protocol.
2. To become familiar with the different diagnostic scopes of the protocol components.
3. To learn how to apply protocol variations for specific clinical questions.
4. To learn when to use IV contrast-enhanced series.

09:03 A-083 Bon appétit! Starters*: cystic fibrosis, pneumonia and pulmonary embolism
M.U. Puderbach; Heidelberg/DE

Learning Objectives:
1. To understand the application of MRI to morphological and functional imaging of airway diseases.
2. To appreciate the potential of MRI for imaging pulmonary emboli using different morphological and functional MR-techniques.

09:23 A-084 Bon appétit! Main course*: pulmonary and mediastinal neoplasms
E.J.R. van Beek; Edinburgh/UK

Learning Objectives:
1. To understand the application of MRI sequences to the staging of lung cancer.
2. To become familiar with the role of MRI in lung cancer work-ups.
3. To learn about the limitations of MRI in chest tumours.

Panel discussion:
„Bon appétit! Dessert”: what are the benefits of MRI of the lung in clinical workflow and decision-making?
A-090 – A-104

09:25
A-090 C. Colon cancer
R.M. Gore, R. Silvers, Evanston, IL/US

Learning Objectives:
1. To get an overview of current recommendations for the diagnosis of colorectal cancer.
2. To understand the specific role of MDCT, MR imaging, endoscopic ultrasound, and PET/CT in the staging of colorectal cancer in optimising patient management.
3. To learn the utility of imaging in assessing tumour response to therapy and in the general follow-up of patients with colorectal cancer.

09:50 Questions

08:30–10:00 Room L/M

Organs from A to Z: Heart
MC 422  Non-ischaemic heart disease
Moderator: V.E. Sinitsyn; Moscow/RU

08:30 A-091 A. Congenital heart disease
M. Gutberlet; Leipzig/DE

Learning Objectives:
1. To understand the value of available imaging modalities in congenital heart disease.
2. To get an overview of common cases of congenital heart failure.
3. To learn how to read post-surgical cases in patients with congenital heart disease.

08:50 A-092 B. Valvular disease
J. Bogaert; Leuven/BE

Learning Objectives:
1. To learn about various imaging modalities available for imaging the cardiac valves.
2. To get an overview of various types of valvular diseases.
3. To understand myocardial changes caused by valvular pathologies.

09:10 A-093 C. Cardiomyopathies
P. Sipola; Kuopio/FI

Learning Objectives:
1. To get an overview of different types of cardiomyopathies.
2. To differentiate typical imaging findings in various cardiomyopathies.

09:30 A-094 Interactive case discussion
V.E. Sinitsyn, Moscow/RU

08:30–10:00 Room N/O

Professional Challenges Session
PC 4  The visibility of the radiologist

08:30 A-100 Chairman’s introduction
J.A. Reekers; Amsterdam/NL

Session Objectives:
1. To learn how the visibility of the radiologist can be increased.
2. To understand that radiology needs to play a central role in diagnosis and treatment.
3. To learn from the experts and increase understanding through Q & A.

08:33 A-101 How to optimise the visibility of the radiology department
J.A. Reekers; Amsterdam/NL

Learning Objectives:
1. To learn how to organise a radiology department within a hospital.
2. To learn how to optimise contact with clinical partners.
3. To learn how to create an open radiology department.

08:45 A-102 Start early with radiological visibility
M. Maas; Amsterdam/NL

Learning Objectives:
1. To learn how to set up an undergraduate teaching programme for radiology.
2. To learn how to overcome the barriers of a traditional curriculum.
3. To learn about the results of an undergraduate teaching programme for radiology.

09:05 A-103 Clinical radiology puts you in the spotlight: taking over the clinical responsibility
E. de Kerviler; Paris/FR

Learning Objectives:
1. To learn how to become more clinically involved.
2. To learn about the requirements of clinical radiology.
3. To learn how to manage the clinical problems of others.

09:25 A-104 Radiology in the 21st century: time to come out of the dark?
A. Adam; London/UK

Learning Objectives:
1. To learn about the role of the radiologist as quality controller.
2. To learn how to become proactive and drive patient pathways rather than simply responding to requests.
3. To learn about improved visibility through improved service.

Panel discussion:
Should we improve the visibility of the radiologist?
And if yes, how?
Special Focus Session
SF 4b  Justifying CT in paediatric radiology

08:30
A-105  Chairman’s introduction
C. Owens; London/UK

Session Objectives:
1. To become familiar with the importance of CT justification and optimisation.
2. To understand the evidence base for concern.
3. To become familiar with realistic alternatives to CT.

08:34
A-106  How should CT be optimised?
W.A. Kalender; Erlangen/DE

Learning Objectives:
1. To become familiar with the dose levels currently encountered in paediatric CT.
2. To become familiar with new developments towards dose reduction in CT.
3. To learn about tools for assessing organ dose and effective dose values.

08:56
A-107  When, how, and why I perform CT
C. Owens; London/UK

Learning Objectives:
1. To become familiar with the concept of CT ‘fit for purpose’.
2. To appreciate the role of CT in paediatric body imaging.
3. To become familiar with suggested parameters for use of CT in cardiothoracic imaging, describing risks and benefits.

09:18
A-108  Why and when CT does not need to be performed
M. Claudon; Vandoeuvre-les-Nancy/France

Learning Objectives:
1. To become familiar with alternative imaging methods to replace CT.
2. To appreciate the advantages and disadvantages of these alternative methods of imaging.
3. To become familiar with a practical model for CEUS and MRI in body imaging.

Panel discussion:
Do we have guidelines for paediatric CT?
Do we have alternatives?

Interactive Teaching Session
E³ 520a  Pitfalls in abdominal imaging

10:30
A-109  A. Liver
V. Martin, M. Ronot, A. Kerbaol, O. Bruno; Clichy/France

Learning Objectives:
1. To learn about morphologic changes in the liver observed in non-cirrhotic diseases.
2. To understand imaging features enabling distinction between intra and extrahepatic tumours.
3. To become familiar with liver lesions mimicking liver tumours.

11:15
A-110  B. Pancreas and bile ducts
R. Maffred; Verona/Italy

Learning Objectives:
1. To understand the MRI technique for evaluating the pancreatic parenchyma, the pancreatic duct system and the biliary tree, the functional assessment following secretin stimulation.
2. To appreciate the signs in MR imaging of the pancreas and bile ducts.
3. To understand the diagnostic imaging criteria useful for differential diagnosis.

11:45
A-111  Ischaemic stroke
J. Macho; Barcelona/Spain

Learning Objectives:
1. To discuss the role of imaging techniques in different clinical scenarios where radiologists are key, from diagnosis to treatment.
2. To present technical imaging innovations that assist the diagnosis, treatment and follow-up in three different clinical scenarios: ischaemic stroke, aortic aneurism and hepatocellular carcinoma.
3. To present specific clinical advantages and results of the multimodality approach.

10:30–12:00  Room B
ESR meets Spain

EM 1  Imaging: essential tool from diagnosis to treatment
Welcome by the ESR President:
G.P. Prentin; Rotterdam/Netherlands

Presiding:
C. Ayuso; Barcelona/Spain
J. Bilbao; Pamplona/Spain

10:30
A-111  Introduction
C. Ayuso; Barcelona/Spain

Session Objectives:
1. To discuss the role of imaging techniques in different clinical scenarios where radiologists are key, from diagnosis to treatment.
2. To present technical imaging innovations that assist the diagnosis, treatment and follow-up in three different clinical scenarios: ischaemic stroke, aortic aneurism and hepatocellular carcinoma.
3. To present specific clinical advantages and results of the multimodality approach.

10:35
A-112  Ischaemic stroke
J. Macho; Barcelona/Spain

Learning Objectives:
2. To understand the rationale behind mechanical endoarterial reperfusion of acute vascular occlusion.
3. To analyse the short and medium term results of a regional programme for acute stroke treatment after three years.

10:55
A-113  Interlude: Spanish radiologists: open to the world
E. Fraile Moreno; Madrid/Spain

11:00
A-114  Aortic aneurisms
J.J. Martínez Rodrigo; Madrid/Spain
E. Fraile Moreno; Madrid/Spain

Learning Objectives:
1. To present technical imaging innovations that assist the diagnosis, endovascular treatment of aortic aneurisms.
2. To present technical imaging innovations that assist the diagnosis, endovascular treatment of aortic aneurisms.
3. To appreciate the role of imaging techniques in different clinical scenarios where radiologists are key, from diagnosis to treatment.

11:20
A-115  Interlude: Radiologists and Spanish wines
L. Martí-Bonmatí; Valencia/Spain

11:25
A-116  Hepatocellular carcinoma: the BCLC approach
M. Burrel; Barcelona/Spain

Learning Objectives:
1. To discuss the role of imaging techniques in different clinical scenarios where radiologists are key, from diagnosis to treatment.
3. To understand the rationale behind mechanical endoarterial reperfusion of acute vascular occlusion.
4. To analyse the short and medium term results of a regional programme for acute stroke treatment after three years.

Panel discussion:
Is the multidisciplinary environment the natural way to develop excellence and leadership in clinical imaging?
Interactive Teaching Sessions

E³ 520b  Pitfalls in head and neck imaging

10:30

A-117  A. Pitfalls in neck imaging
F.A. Pameijer; Utrecht/NL

Learning Objectives:
1. To understand the variations of normal anatomy in the neck that should not be interpreted as abnormal.
2. To become familiar with the incidental findings that are frequently encountered when searching for neck disease.
3. To recognise suboptimal neck studies, or technique related problems and understand how these may influence interpretation.

11:15

A-118  B. Pitfalls in maxillofacial and skull base imaging
R. Hermans; Leuven/BE

Learning Objectives:
1. To understand the basic requirements for an optimal imaging study of the skull base and maxillofacial region.
2. To become familiar with anatomical variants, potentially mimicking disease.
3. To learn to appreciate incidental findings, avoiding unnecessary concern while recognising relevant pathology.

Foundation Course: Neuroimaging

E³ 520c  Paediatric
Moderator: D. Prayer; Vienna/AT

10:30

A-119  A. Neonatal hypoxic-ischaemic brain injury
M.I. Argyropoulou; Ioannina/GR

Learning Objectives:
1. To understand gestational age-related patterns of brain injury.
2. To understand the role of ultrasound and MRI for the initial diagnosis and follow-up of these patients.
3. To understand when and how to use advanced MRI techniques for delineation of lesions and for prognosis.

11:00

A-120  B. Spine and spinal cord malformations
A. Rossi; Genoa/IT

Learning Objectives:
1. To understand the embryology underlying the different categories of malformations.
2. To learn the key morphological features.
3. To learn how to use a simplified diagnostic imaging approach.

11:30

A-121  C. Imaging of the foetal brain
C. Garel; Paris/FR

Learning Objectives:
1. To become familiar with the normal appearance of the developing brain.
2. To learn about the protocols and the limitations of foetal imaging.
3. To gain knowledge about the imaging findings of the most common brain abnormalities.

Joint Course of ESR and RSNA
(Radiological Society of North America)

MC 528  Essentials in oncologic imaging: what radiologists need to know (part 2)
Moderator: H. Hricak; New York, NY/US

10:30

A-122  A. Pancreatic cancer
F. Caseiro-Alves; Coimbra/PT

Learning Objectives:
1. To understand current pathologic concepts for the classification of pancreatic tumours.
2. To learn about imaging findings used for tumour detection, staging, and restaging after adjuvant therapy.
3. To understand the role of functional and molecular information provided by PET/CT, DWI and perfusion imaging when assessing pancreatic tumours.

10:55

A-123  B. Kidney cancer
E.K. Fishman; Baltimore, MD/US

Learning Objectives:
1. To understand the diagnostic implications of minimally invasive treatments of renal cancer.
2. To review the genetic causes of renal cancer and the radiologic appearances of specific histologic subtypes.
3. To review the potential role of molecular imaging in the management of advanced renal cancer.

11:20

A-124  C. Ovarian cancer
H. Hricak; New York, NY/US

Learning Objectives:
1. To get an overview of the essential imaging findings in characterisation and staging of ovarian cancer.
2. To learn the key imaging findings that affect management of ovarian cancer.
3. To understand the changes in imaging armamentarium in ovarian cancer, and learn the best practice in proper image utilisation.

The Beauty of Basic Knowledge: Musculoskeletal Imaging

MC 25B  Degenerative disorders

12:30

A-125  Degenerative disorders
T.M. Link; San Francisco, CA/US

Learning Objectives:
1. To understand the basic pathophysiology of degenerative processes in peripheral joints and in the spine.
2. To become familiar with typical imaging findings of osteoarthritis and degenerative changes in the spine.
3. To learn about the differential diagnosis of degenerative disorders.
12:30–13:30 Room Q

The Beauty of Basic Knowledge:
Head and Neck

MC 24B  The infrahyoid neck and lymph nodes

12:30

A-126  The infrahyoid neck and lymph nodes
M.G. Mack; Munich/DE

Learning Objectives:
1. To become familiar with the different anatomic compartments of the infrahyoid neck.
2. To understand lymph node classification and level system.
3. To learn about the best imaging approach to an IHN mass.
4. To be able to localise and provide a useful differential diagnosis.

12:30–13:30 Room A

Plenary Session

HL 1  Josef Lissner Honorary Lecture
Presiding: J.I. Bilbao; Pamplona/ES

12:45–13:15 Room D1

Controversies in Breast Imaging

MC 623  Preoperative MRI in newly diagnosed breast cancer: to do or not to do?
Moderator: F. Sardanelli; Milan/IT
Teaser: N. Houssami; Sydney/AU

14:00

A-128  A. Why we should do preoperative MRI
W.A. Kaiser; Jena/DE

14:25

A-129  B. Reasons not to do preoperative MRI
M.G. Wallis; Cambridge/UK

14:50

A-130  Discussion
F. Sardanelli1, N. Houssami2; 1Milan/IT, 2Sydney/AU

14:00–15:30 Room E2

Foundation Course: Neuroimaging

E³ 620  Trauma and vascularity
Moderator: A. Molyneux; Oxford/UK

14:00

A-131  A. CNS trauma
P.M. Parizel, C. Venstermans, F. De Belder, T. Van der Jyden, L. van den Hauwe, M. Voormolen, J. Van Goethem; Antwerp/BE

Learning Objectives:
1. To become familiar with the different types of intracranial injury and the appropriate imaging patterns.
2. To learn about the imaging characteristics of intracranial haemorrhage by CT and MR.
3. To be able to recognise imaging findings that are critical for the patient's prognosis.

14:30

A-132  B. Cerebral ischaemia and infarction
L. Pierot; Reims/FR

Learning Objectives:
1. To consolidate knowledge of CT findings and conventional MRI findings.
2. To become familiar with the imaging findings and diagnostic role of diffusion and perfusion MRI.
3. To be informed of the indications and techniques for endovascular stroke treatment.

15:00

A-133  C. Vascular malformations of the spinal cord
D.A. Rüfenacht, I. Wanke; Zurich/CH

Learning Objectives:
1. To understand the pathophysiology of vascular anomalies.
2. To become familiar with imaging protocols.
3. To be informed of the indications of interventional therapeutic procedures.

14:30–15:30 Room I/K

Joint Course of ESR and RSNA
(Radiological Society of North America)

MC 628  Essentials in oncologic imaging: what radiologists need to know (part 3)
Moderator: Y. Menu; Paris/FR

14:00

A-134  A. Oncologic imaging: terminology, definitions and buzzwords
Y. Menu; Paris/FR

Learning Objectives:
1. To get an overview and precise explanation of current cancer-related terminology, definitions and „buzz” words used in everyday practice.
2. To understand why and how this terminology should ensure and simplify communication with all specialists involved in cancer management, including clinicians, researchers as well as other radiologists.
3. To learn common tricks and traps in providing a radiology report, illustrated with clinical cases.

14:20

A-135  B. Liver cancers (primary, metastases)
R.L. Baron; Chicago, IL/US

Learning Objectives:
1. To get an overview of the AASLD/EASL imaging criteria for noninvasive diagnosis of hepatocellular carcinoma.
2. To learn about best practice CT/MR/US imaging techniques that optimise characterisation, detection and staging of primary and metastatic liver tumours.
3. To understand the key role specific findings reported by radiologists have in determining patient treatment options for hepatocellular carcinoma.

14:55

A-136  C. Prostate cancer
J.O. Barentsz; Nijmegen/NL

Learning Objectives:
1. To learn the key clinical indications for MR imaging in prostate cancer.
2. To get an overview of essential MR imaging techniques in detection, characterisation, localisation and staging of prostate cancer.
3. To understand how MR imaging influences therapeutic decisions and how best to provide a value added MR report.

15:20  Questions
**Interactive Teaching Session**

**E³ 720a  Neurological emergencies**

**Room A**

**16:00**

**A-142 A. Non-traumatic**

**Learning Objectives:**
1. To learn which imaging modality to use.
2. To understand how to identify early ischaemia.
3. To be able to select patients for treatment.

**16:45**

**A-143 B. Traumatic**

**Learning Objectives:**
1. To understand the proper imaging protocols for trauma patients.
2. To become familiar with imaging findings in acute head trauma.
3. To learn about the imaging findings in spinal cord trauma.

**16:00–17:30 Room B**

**ESR meets E-AHPBA**

**EM 2  Pancreatic cystic neoplasms 2013**

*Welcome by the ESR President:*

G.P. Krestin, Rotterdam/NL

*Presiding:*

J.J. Bilbao, Pamplona/ES

P.-A. Clavien, Zurich/CH

**16:00**

**A-144 Introduction**

P.-A. Clavien, Zurich/CH

K. Conlon, Dublin/IE

**Session Objectives:**
1. To understand the importance of the recent WHO classification and its relevance to therapy.
2. To become familiar with the radiological work-up for patients with pancreatic cystic tumours.
3. To appreciate the current role of endoscopic ultrasonography in diagnosis and management.
4. To become familiar with the indications for surgical intervention and the role of organ-sparing therapies.

**16:03**

**A-145 Classification/pathology**

C. Trattnig, Vienna/AT

Erlangen/DE

**Learning Objectives:**
1. To understand the morphological classification of pancreatic cystic lesions based on the distinction between neoplastic/non-neoplastic and epithelial/non-epithelial cysts.
2. To become familiar with the key distinctive macroscopic features of the various cyst entities and to understand the basic microscopic diagnostic features.
3. To appreciate the considerable variation in macroscopic appearances and the potential overlap between certain entities.
4. To become familiar with the macroscopic features of malignant transformation within primarily benign cystic lesions.

**16:21**

**A-146 Radiological diagnosis**

S. Skehan, Dublin/IE

**Learning Objectives:**
1. To become familiar with the optimal imaging modalities for cystic pancreatic lesions.
2. To learn about the characteristic imaging features of cystic pancreatic lesions and to describe how imaging can contribute to preoperative diagnosis.
3. To discuss the appropriate imaging surveillance of selected cystic pancreatic lesions.

**16:39**

**A-147 Current role of endoscopic ultrasonography**

P. Bauerfeind, Zurich/CH

**Learning Objectives:**
1. To appreciate the technical aspects, performance characteristics and limitations of EUS and EUS-FNA in PCNs.
2. To understand how EUS and EUS-guided FNA help to establish a diagnosis in PCNs.
3. To appreciate the added information that EUS brings in staging pre-malignant and malignant PCNs and in orientating surgical decision-making.

**16:57**

**A-148 How aggressive should the surgeon be?**

K. Conlon, Dublin/IE

**Learning Objectives:**
1. To understand the clinical indications for surgical intervention.
2. To appreciate the rationale for deciding on a particular procedure.
3. To discuss the outcomes of observation versus surgery.

**Panel discussion: The multidisciplinary assessment and management of pancreatic cystic neoplasia**

**17:15**

**New Horizons Room C**

**NH 7  Cartilage imaging**

**16:00**

**A-149 Chairman’s introduction**

V.N. Cassar-Pullicino, Oswestry/UK

**Session Objectives:**
1. To review the basics of cartilage physiology.
2. To introduce the quantitative MR tools used to assess collagen and proteoglycan depletion.
3. To learn about the problems arising from the avascular nature of articular cartilage.

**16:03**

**A-150 Sodium imaging**

S. Trattnig, Vienna/AT

**Learning Objectives:**
1. To get familiar with the basic principles of sodium imaging.
2. To understand technical challenges of sodium imaging and how to handle them.
3. To learn about clinical applications of sodium imaging in cartilage, cartilage repair and other MSK structures.

**16:21**

**A-151 dGEMRIC (delayed gadolinium-enhanced MR imaging of cartilage)**

S. Trattnig, Vienna/AT

**Learning Objectives:**
1. To learn the basic principles of dGEMRIC and the current used techniques for clinical imaging.
2. To learn about the current clinical applications of dGEMRIC.
3. To get an overview of future uses of dGEMRIC in therapeutic studies.

**16:39**

**A-152 Diffusion tensor imaging**

S. Skehan, Dublin/IE

**Learning Objectives:**
1. To discuss basic principles of diffusion imaging in MSK.
2. To review technical challenges and current achievements.
3. To look into potential future directions.

**16:57**

**A-153 CEST (chemical exchange saturation transfer)**

B. Schmitt, Vienna/AT

**Learning Objectives:**
1. To understand basic principles of CEST imaging.
2. To learn about the current status of gagCEST imaging.
3. To become aware of technical pitfalls and future approaches.
Panel discussion:
What are the envisaged future advances in these cartilage imaging techniques and can we expect to introduce them into clinical practice?

16:00–17:30 Room D1

Controversies in Breast Imaging
MC 723 Should we add ultrasound to mammographic screening of dense breasts?
Moderator: F.J. Gilbert, Cambridge/UK
Teaser: A. Tardivon, Paris/FR
16:00 A-154 A. We can reduce the interval cancer rate
W.A. Berg; Pittsburgh, PA/US
16:25 A-155 B. Do we have enough radiologists to do it? Alternatives to ultrasound to reduce interval cancers
A. Frigerio; Turin/IT
16:50 A-156 Discussion
F.J. Gilbert, A. Tardivon; Cambridge/UK, Paris/FR

16:00–17:30 Room D2

Oncologic Imaging: Follow-up of Systemic and Local Therapies
CC 719 Imaging after systemic therapies: the standards
Moderator: E.L. van Persijn van Meerten, Leiden/NL
16:00 A-157 A. RECIST criteria
Y. Menu; Paris/FR
Learning Objectives:
1. To consolidate knowledge of evaluation of solid tumour response.
2. To learn about tips and tricks to help bring RECIST to everyday practice.
3. To understand advantages and limitations of RECIST.
16:30 A-158 B. PERCIST: evolving considerations for PET response criteria in solid tumours
T.F. Hany; Zurich/CH
Learning Objectives:
1. To learn about the evaluation of solid tumours through metabolic imaging.
2. To understand the benefits of metabolic imaging.
17:00 A-159 C. Evaluation of brain tumours
C. Majós; L’Hospitalet de Llobregat/ES
Learning Objectives:
1. To learn about evaluation criteria for brain tumours.
2. To become familiar with the evaluation of brain tumours after treatment with various therapies.

16:00–17:30 Room E1

Musculoskeletal
RC 710 Peripheral nerve imaging: MRI and US
16:00 A-160 Chairman’s introduction
J. Renoux; Paris/FR
16:05 A-161 A. Applied radiological anatomy and pathology of the brachial plexus
S. Gerevini; Milan/IT
Learning Objectives:
1. To understand the anatomy of the brachial plexus as demonstrated with MRI.
2. To appreciate the range of pathology seen at the brachial plexus.
3. To become familiar with the MRI findings of brachial plexus pathology.
16:28 A-162 B. Upper limb nerve entrapment
C. Martinoli, A. Tagliafico; Genoa/IT
Learning Objectives:
1. To become familiar with the strengths and weaknesses of US and MRI for assessing upper limb nerves.
2. To appreciate the imaging findings of upper limb nerve entrapment.
16:51 A-163 C. Lower limb nerve entrapment
F.J. Gilbert, A. Tardivon; Cambridge/UK, Paris/FR
Learning Objectives:
1. To become familiar with the strengths and weaknesses of US and MRI for assessing lower limb nerves.
2. To appreciate the imaging findings of lower limb nerve entrapment.
Panel discussion:
Which on-going technological advances in MRI and US could influence the way we image peripheral nerves in the future?

16:00–17:30 Room E2

Foundation Course: Neuroimaging
E³ 720b Infection and inflammation
Moderator: A. Gouliamos, Athens/GR
16:00 A-164 A. Infection
E.T. Tali; Ankara/TR
Learning Objectives:
1. To understand the concept of ‘leaky vessels’ in the infectious meningeal, parenchymal and ventricular involvement.
2. To learn how to proceed with imaging when ‘time is of the essence’.
3. To become familiar with the specific imaging patterns of bacterial, viral, fungal, parasitic and prion infections.
16:30 A-165 B. Multiple sclerosis
F. Barkhof; Amsterdam/NL
Learning Objectives:
1. To learn about the role of MRI in detecting focal and diffuse multiple sclerosis pathology.
2. To consolidate knowledge of lesion distribution, signal intensity characteristics and patterns of contrast enhancement.
3. To be able to apply the 2010 McDonald criteria to the diagnosis of MS.
17:00 A-166 C. Mimics of multiple sclerosis
V. Dousset; Bordeaux/FR
Learning Objectives:
1. To be aware of the top ten mimics of multiple sclerosis.
2. To become familiar with the imaging findings suggestive of other disorders.
3. To be informed of the importance of imaging the spinal cord for the differential diagnosis of MS/MS mimics.
A-167 Chairmen’s introduction

D. Plavec; V. Vilgrain, Ljubljana/SI, Clichy/FR

Session Objectives:
1. To understand why ultrasound continues to be a growth area in diagnostic imaging.
2. To identify the challenges posed by the growth of this field.
3. To understand the challenges faced by radiographers carrying out US across Europe.

A-168 Levels of training and competencies across Europe

M.T. Stanion, Dublin/IE

Learning Objectives:
1. To appreciate the similarities between radiographer competencies across Europe.
2. To become familiar with the regulations for radiographers to train and practice in Europe.
3. To understand the benefits of having radiographers in the management and optimisation of health systems.

A-169 The role and impact of the radiographer conducted US in Portugal

R.T. Ribeiro, Lisbon/PT

Learning Objectives:
1. To learn about US education over an entire four year bachelor programme.
2. To understand the role of the radiographers as a result of this bachelor programme.
3. To appreciate changes in the education programme following changes into radiotherapy planning, adaptation and response evaluation.

Panel discussion:
What are the challenges and barriers facing role extension?

A-170 Evolution of radiography education for US in the Netherlands since 1990, and its influence on their role

G. Plug, Haarlem/NL

Learning Objectives:
1. To become familiar with the radiographers’ role in the context of a professional progression framework.
2. To understand the synergies at play in interprofessional relationships and team-work.
3. To learn the benefits of having radiographers in the management and optimisation of health systems.

A-171 Modern radiotherapy: what are the new technologies?

V. Valentini, Rome/IT

Learning Objectives:
1. To become familiar with 3D conformal radiotherapy and intensity modulated radiation therapy (IMRT) and intensity modulated radiosurgery (IMRS).
2. To learn about brachytherapy and intraoperative radiotherapy (IORT) and its indications.
3. To understand how IMRT contributes to better treatment outcomes as compared with conventional radiotherapy.

A-172 PET/CT for radiotherapy planning: how does it assist IMRT?

A. Luft, Copenhagen/DK

Learning Objectives:
1. To learn about anatomical imaging risk compartments that define gross tumour volume (GTV).
2. To understand how PET/CT assists in delineating the GTV.
3. To understand the role of PET/CT guided IMRT and how it can lead to treatment adaptation.

A-173 MR imaging biomarkers for response evaluation

R.G.H. Beets-Tan, Maastricht/NL

Learning Objectives:
1. To learn about the range of MR imaging biomarkers that can be used for markers of tumor microenvironment and heterogeneity.
2. To learn how tumour heterogeneity, reflecting tumour microenvironment, influences dose distribution in IMRT.
3. To learn how response assessment during IMRT leads to adaptation and tailoring of radiation treatment.

A-174 Response evaluation and treatment adaptation

K. Haustermans, Leuven/BE

Learning Objectives:
1. To learn the imaging techniques necessary for accurate initial evaluation of the urethra in cases of complicated pelvic trauma.
2. To learn to identify bladder and urethral injury.
3. To be able to identify patients requiring urgent cysto-urethrography.

Panel discussion:
How can imaging improve outcomes in radiotherapy?

A-175 MR imaging biomarkers for response evaluation

R.G.H. Beets-Tan, Maastricht/NL

Learning Objectives:
1. To learn the imaging techniques necessary for accurate initial evaluation of the urethra in cases of complicated pelvic trauma.
2. To learn to identify bladder and urethral injury.
3. To learn the imaging techniques necessary for accurate initial evaluation of the urethra in cases of complicated pelvic trauma.

A-176 Imaging the kidney and ureter

M.-F. Bellin, Le Kremlin-Bicêtre/FR

Learning Objectives:
1. To learn about brachytherapy and intraoperative radiotherapy (IORT) and its indications.
2. To learn about anatomical imaging risk compartments that define gross tumour volume (GTV).
3. To understand how PET/CT assists in delineating the GTV.

A-177 Imaging the bladder and urethra

D. Pekarovic, Münster/DE

Learning Objectives:
1. To learn how functional and metabolic imaging have been integrated into radiotherapy planning, adaptation and response evaluation.
2. To become familiar with imaging findings after radiotherapy.
3. To understand how response assessment during and after radiotherapy.

Panel discussion:
How can imaging improve outcomes in radiotherapy?
A-178  C. Interventional radiology for GU trauma
B. Peynircioglu, Ankara/TR

Learning Objectives:
1. To be able to determine which cases deserve management by interventional radiology.
2. To understand the techniques to manage fistulas and ruptures of the ureter and urethra.
3. To appreciate the vascular and non-vascular interventional techniques in kidney trauma.

16:00–17:30  Room L/M

Joint Course of ESR and RSNA (Radiological Society of North America)
MC 728  Essentials in oncologic imaging: what radiologists need to know (part 4)
Moderator: M.F. Reiser, Munich/DE

16:00  A-179  A. Lymphoma
H. Schoder, New York, NY/US

Learning Objectives:
1. To get a practical, clinically relevant summary of key imaging issues in Hodgkin and non-Hodgkin lymphoma.
2. To learn how imaging, especially PET and PET-CT can optimally assess and measure tumour treatment response, providing a value-added radiology report.

16:30  A-180  B. Musculoskeletal neoplasms
M.F. Reiser, Munich/DE

Learning Objectives:
1. To become familiar with the imaging modalities which enable to detect and differentiate benign and malignant bone neoplasms.
2. To consolidate knowledge of radiographic, CT and MRI findings which enable to classify and stage bone tumours.
3. To understand the potential role of PET-CT and whole body MRI.
4. To learn the signs indicative of favourable and poor response to preoperative chemotherapy and for recurrence of malignant bone tumours.

16:55  A-181  C. Chemo- and radiation therapy-induced toxicity
H.-U. Kauczor, Heidelberg/DE

Learning Objectives:
1. To get an overview of organ-specific toxicity and other adverse effects of chemo- and radiotherapy.
2. To become familiar with the imaging modalities which enable to detect and differentiate benign and malignant bone neoplasms.
3. To understand how imaging, especially PET and PET-CT can optimally assess and measure tumour treatment response, providing a value-added radiology report.

17:20  Questions

16:00–17:30  Room L/M

Organs from A to Z: Heart
MC 722  Ischaemic heart disease
Moderator: C. Catalano, Rome/IT

16:00  A-182  A. Imaging of the coronary arteries: the Holy Grail
G. Roditi, Glasgow/UK

Learning Objectives:
1. To learn about the meaning of CT coronary calcium screening for risk assessment.
2. To identify suitable modalities and challenges for non-invasive coronary angiography.
3. To understand the potential of coronary plaque imaging beyond calcium.

Radiographers

RC 714  Clinical audit: from EURATOM to the clinical environment

A-190 A. Clinical audit: from the EURATOM treaty to EU guidelines: clinical audit RP 159
P. Wood; Middelburg/NL

Learning Objectives:
1. To understand the background to the publication of RP 159 along with its purpose and scope.
2. To become familiar with the principles and prerequisites of clinical audit as outlined by RP 159.
3. To become familiar with the relationship between clinical audit and regulatory controls.
4. To gain an insight into potential national, regional and international issues associated with clinical audit.

A-191 B. Implementation in practice: a comparison of different models
S. Geers-van Gemeren; Utrecht/NL

Learning Objectives:
1. To understand the key components required to allow clinical audit to be implemented in practice.
2. To gain an insight into different implementation models.
3. To be informed about the key considerations that must be made prior to implementing an audit model: organisation, auditors, process, financing, the roles of professional bodies, and outcomes.

A-192 C. A perspective on the impact and benefits of clinical audit
S. O’Connor; Dublin/IE

Learning Objectives:
1. To gain an insight into the use of clinical audit from the perspective of a clinical audit lead in an international diagnostic imaging service provider.
2. To become familiar with the challenges that may be encountered when undertaking clinical audit.
3. To understand the significant impact that clinical audit can have from the perspective of the patient, the healthcare team and on service delivery.

SF 7c  Imaging in intensive care patients

A-193 Chairman’s introduction
A. Palkó; Szeged/HU

Session Objectives:
1. To understand the importance of imaging diagnostics in the unique and challenging clinical setting of the intensive care units.
2. To learn about the technical and methodological considerations to be taken into account with this patient group.
3. To learn more about the most important conditions and the imaging findings as well as the diagnostic imaging algorithms to be used in the intensive care environment.

A-194 Value of MRI for intensive care coma patients with unclear brain pathology
P.C. Maly Sundgren; Lund/SE

Learning Objectives:
1. To understand the importance of magnetic resonance imaging in cases of unclear brain pathology causing severe dysfunction of the central nervous system.
2. To understand the significance of imaging in the evaluation of brain function and potential outcome following anesthesia, injuries and hypoxia.
3. To become familiar with the imaging signs and their predictive value and accuracy regarding brain death, and future role of imaging in decisions concerning the termination of intensive treatment.

A-195 Computed tomography of pathologic lung conditions complicating intensive care treatment
C.M. Schaefer-Prokop; Amersfoort/NL

Learning Objectives:
1. To understand the spectrum of pathological lung conditions, which complicate intensive care treatment.
2. To learn about the role of diagnostic imaging and its technical difficulties and requirements in the intensive care environment.
3. To become familiar with the most important imaging signs and symptoms of tracheobronchial and lung conditions, influencing the treatment and survival of the intensive care patient.

A-196 Point-of-care versus diagnostic ultrasound in the intensive care unit

Learning Objectives:
1. To understand the concept and role of point-of-care ultrasound and its technical and training requirements.
2. To become familiar with the role and tasks of diagnostic ultrasound versus point-of-care ultrasound in the most common pathologic conditions in intensive care.
3. To learn more about typical ultrasound findings and their significance in the diagnosis, differential diagnosis and therapy of intensive care patients.

A-197 Imaging in polytrauma
U. Linsenmaier; Munich/DE

Learning Objectives:
1. To appreciate the clinical significance of conditions characterised by multiple severe injuries and their systemic and multi-organ complications.
2. To explain the special role of imaging, the diagnostic algorithm and the technical, organisational and training requirements for the diagnosis and follow-up of polytrauma patients.
3. To consolidate knowledge of imaging signs and symptoms and their diagnostic value in patients with polytrauma.

Panel discussion:
What training and special skills are radiologists expected to have in order to work with intensive care units? How should we manage the clinical and technical challenges posed by this very specific environment?
16:00–17:30  Room Z

**Vascular**

**RC 715  Dialysis fistula**
Moderator: H.A. Deutschmann, Graz/AT

16:00
**A-198  A. Preoperative mapping**
L. Turmel-Rodrigues; Tours/FR

**Learning Objectives:**
1. To become familiar with the indications and techniques for preoperative arterial venous mapping.
2. To learn about the venous anatomy.
3. To become familiar with the potential pitfalls of preoperative mapping.

16:30
**A-199  B. Screening for problems**
D. Vorwerk; Ingolstadt/DE

**Learning Objectives:**
1. To understand the spectrum of problems with dialysis fistula.
2. To learn about screening protocols and the results of screening.
3. To learn about the most common problems and how to detect them.

17:00
**A-200  C. Evaluation of malfunction**
R. Uberoi; Oxford/UK

**Learning Objectives:**
1. To understand the main indications and results of angioplasty.
2. To learn about thrombectomy and aspiration.
3. To become familiar with the indications for stenting.
Interactive Teaching Session

E³ 820a  Pitfalls in heart imaging

08:30
A-201  CT

Learning Objectives:
1. To learn about practical aspects of postprocessing, reading and reporting non-invasive cardiac CT examinations.
2. To learn how to improve reading of results by recognizing technical causes for various artifacts in cardiac CT.
3. To become familiar with approaches to reducing false inaccuracies and misinterpretations when assessing coronary artery stenosis.

08:15
A-202  MRI

Learning Objectives:
1. To learn about common pitfalls in MRI evaluation of the heart.
2. To become familiar with cardiac anatomical variants, potentially mimicking disease.

08:30–10:00 Room B

Special Focus Session

SF 8a  Is diagnostic catheter angiography still useful in neuroimaging?

08:30
A-203  Chairman's introduction

Learning Objectives:
1. To become familiar with the current debate on the need for diagnostic catheter angiography.
2. To become familiar with the pros and cons of diagnostic catheter angiography.
3. To learn about the pros and cons of alternative non-invasive angiography techniques.

08:35
A-204  What can we expect from vascular diagnostic procedures?

Learning Objectives:
1. To learn about the expectations from vascular diagnostic procedures in the diagnostic work-up.
2. To become familiar with the expectations from vascular diagnostic procedures in therapy planning and therapeutic procedures.
3. To learn about the expectations from vascular diagnostic procedures in the follow-up assessments.

08:58
A-205  Can non-invasive techniques as CTA and MRA replace catheter angiogram for diagnostic work-up?

Learning Objectives:
1. To become familiar with the diagnostic potential of CTA and MRA.
2. To understand the current proved clinical indications where CTA and MRA can replace catheter angiography.
3. To learn about safety issues in non-invasive procedures.

09:21
A-206  Diagnostic catheter angiography is not dead: current indications and advantages over the non-invasive techniques

Learning Objectives:
1. To learn about the current indications for diagnostic catheter angiography.
2. To become familiar with complications rates of selective catheter angiography in high volume centers.
3. To appreciate some technical innovations for diagnostic catheter angiography.

Panel discussion:
09:44  The pros and cons of diagnostic catheter angiography in neuroimaging

Panel discussion:
09:45  What benefits and risks should we expect in terms of basic research, clinical service, and economics?

New Horizons Session

NH 8  MR/PET: a marriage made in heaven or hell?

08:30
A-207  Chairman's introduction

Learning Objectives:
1. To introduce the potential of this new imaging modality.
2. To appreciate a new opportunity for cooperation between radiology and nuclear medicine.

08:33
A-208  MR/PET in neuroimaging: nuclear medicine

Learning Objectives:
1. To learn about what we are able to do now.
2. To understand the nuclear aspect of neuroimaging.
3. To learn about the possibilities and limitations of neuroimaging.

08:51
A-209  MR/PET in neuroimaging: radiology

Learning Objectives:
1. To demonstrate the value of this hybrid technique.
2. To understand the radiological aspect of neuroimaging.
3. To learn about the possibilities and limitations of neuroimaging.

09:09
A-210  MR/PET in oncologic imaging: nuclear medicine

Learning Objectives:
1. To learn about what we are able to do now.
2. To understand the nuclear aspect of oncologic imaging.
3. To learn about the possibilities and limitations of oncologic imaging.

09:27
A-211  MR/PET in oncologic imaging: radiology

Learning Objectives:
1. To demonstrate the value of this hybrid technique.
2. To become familiar with the radiologic aspect of oncologic imaging.
3. To learn about possibilities and limitations of oncologic imaging.

Panel discussion:
09:45  What benefits and risks should we expect in terms of basic research, clinical service, and economics?

CLICK (Clinical Lessons for Imaging Core Knowledge): Never without Arteries

CC 818  How old are you in reality? Vascular age and clinical events

Moderator: L. Lonn; Copenhagen/DK

08:30
A-212  A. Clinical considerations

Learning Objectives:
1. To learn about the frequency and importance of vascular diseases.
2. To become familiar with clinical risk stratification strategies.
3. To learn about the possibility of reducing cardiovascular risk.
A-213  B. Imaging techniques and typical findings
H.J. Lamb; Leiden/NL

Learning Objectives:
1. To learn about the imaging modalities used for the assessment of cardiovascular risk.
2. To learn how to select the right test for the right patient.
3. To become familiar with the newest innovations and newest guidelines in non-invasive cardiovascular risk assessment.

A-214  C. Interactive case discussion: how to deal with the results?
A. van der Lugt; Rotterdam/NL

Learning Objectives:
1. To understand the strength of non-invasive risk stratification in properly selected patient populations.
2. To consolidate knowledge of the selection of the appropriate imaging technique, image interpretation and image-based treatment recommendation.
3. To learn about the risks of the inappropriate use of such risk stratification tests (Ca-scoring) in symptomatic patients.

Oncologic Imaging: Follow-up of Systemic and Local Therapies
CC 819  Imaging after systemic therapies: advanced techniques
Moderator: D.-M. Koh; Sutton, Surrey/UK

08:30  Room D2
A-215  A. What can we expect from biomarkers
B. Van Beers; Clichy/FR

Learning Objectives:
1. To become familiar with biomarkers.
2. To consolidate knowledge of various biomarkers and their utility.

09:00  Room D2
A-216  B. MRI biomarkers: from acquisition to post-processing
O. Lucidarme, M. Wagner, C. Pellot Barakat, F. Frouin; Paris/FR

Learning Objectives:
1. To become familiar with MRI biomarkers.
2. To learn about tips and tricks for MRI biomarker evaluation.

09:30  Room D2
A-217  C. Assessing the precision and accuracy of biomarker imaging: is it reproducible?
C.B. Story; San Diego, CA/US

Learning Objectives:
1. To understand imaging biomarker precision (repeatability and reproducibility) and accuracy and how it is evaluated.
2. To understand how to interpret biomarker precision and accuracy in the context of the biomarker’s intended use.

Emergency Radiology
RC 817  Polytrauma: redefining imaging issues for management priorities

08:30  Room E1
A-218  Chairman’s introduction: advanced imaging, logistics and management priorities in patients after polytrauma
H. Alkadhi, Zurich/CH

08:40  Room E1
A-219  A. Vascular trauma
O. Schneider; Basel/CH

Learning Objectives:
1. To become familiar with the use of dedicated MDCT protocols, classification of vascular injuries and treatment options.
2. To become familiar with alternative imaging modalities such as US, DSA, and MR.
3. To learn about typical and atypical imaging findings.

09:00  Room E1
A-220  B. Chest and abdomen
M. Scialpi, Castel Volturno/IT

Learning Objectives:
1. To become familiar with the most important imaging findings and their impact on patient management.
2. To understand common classification systems, trauma scoring systems and their impact on patient management.
3. To learn about typical and atypical imaging findings.

09:20  Room E1
A-221  C. Extremities
U. Linsenmaier, L.L. Geyer; Munich/DE

Learning Objectives:
1. To become familiar with imaging strategies, the role of CR, CT and MR.
2. To understand common classification systems and their impact on patient management.
3. To learn about typical and atypical imaging findings.

Panel discussion:
09:40
How to speed up your diagnoses?
A-226 A. High risk patients: establishing clinical protocols
J. Veltman; Almelo/NL

Learning Objectives:
1. To become familiar with the literature on the role of breast MRI in screening of high risk patients.
2. To understand current protocols in clinical practice.
3. To appreciate the challenges of breast MRI imaging in this patient group.

A-227 B. Non-mass like enhancement (NMLE): when to biopsy?
C.K. Kuhl; Aachen/DE

Learning Objectives:
1. To learn about the clinical significance of NMLE.
2. To understand differential diagnosis for NMLE.
3. To become familiar with a work-up algorithm of NMLE cases.

A-228 C. Monitoring response to neo-adjuvant chemotherapy
T.H. Helbich; Vienna/AT

Learning Objectives:
1. To understand the clinical aspects of neo-adjuvant chemotherapy.
2. To appreciate evidence-based protocols for imaging in this clinical setting.
3. To learn about particular imaging challenges of assessing response to neo-adjuvant chemotherapy.

Panel discussion:
How can the specificity and sensitivity of breast MRI in these indeterminate clinical and imaging scenarios be maximised?

A-230 CEUS of the bowel wall: when and how
F. Maccioni; Rome/IT

Learning Objectives:
1. To review the relevant clinical indications for CEUS of the bowel.
2. To learn how to optimally perform a CEUS examination of the bowel wall.
3. To appreciate important findings in patients with IBD and learn how to evaluate inflammatory activity of the bowel wall.

Panel discussion:
When should we integrate these technological advances into our routine practice?

A-231 Dual-energy (spectral) CT: GI applications
P. Rogalla; Toronto, ON/CA

Learning Objectives:
1. To review the concept and technique of dual-energy CT.
2. To understand the clinical application of dual-energy CT in GI imaging.
3. To appreciate the additional benefits of the technique in routine clinico-radiological practice.

A-232 MR imaging of GI tract motility
S.A. Taylor; London/UK

Learning Objectives:
1. To learn about the MRI protocols that can best assess bowel motility.
2. To understand the various software approaches to quantifying bowel motility.
3. To become familiar with how motility MRI can be used in clinical practice.

Panel discussion:
When should we integrate these technological advances into our routine practice?
08:30–10:00 Room I/K

Chest

RC 804  Patterns in chest radiology: are there subtype patterns of ground glass opacity (GGO)?

08:30

A-237  Chairman’s introduction
A. Oikonomou; Alexandroupolis/GR

Session Objectives:
1. To learn about the prevalence and low specificity of GGO.
2. To appreciate the need for definition of GGO subtypes to improve radiological diagnoses.

08:35

A-238  A. Ground glass opacification: why do we see it and what does it mean?
S.R. Desai; London/UK

Learning Objectives:
1. To appreciate the different physiological conditions which cause GGO pattern.
2. To learn about the associations and reversibility of physiology-related GGO.

08:58

A-239  B. Inflammatory and infectious GGO
K. Marten-Engelke; Göttingen/DE

Learning Objectives:
1. To learn more about the inflammatory conditions which cause GGO.
2. To appreciate the histopathological correlates of inflammatory and infectious GGO.
3. To become familiar with GGO in autoimmune and infectious lung disease.

09:21

A-240  C. GGO in dysplasia and neoplasia
G.R. Ferretti, S. Lantuejoul; Grenoble/FR

Learning Objectives:
1. To learn more about the dysplastic and neoplastic conditions causing GGO.
2. To appreciate the histopathological correlates of dysplastic and neoplastic GGO.
3. To understand how to estimate malignancy on the basis of GGO pattern.

Panel discussion:
How should we report and manage ground glass opacity?

08:30–10:00 Room L/M

Vascular

RC 815  How I report
Moderator: D. Bilecen, Basle/CH

08:30

A-241  A. CTA and MRA of supra-aortic arteries
J.M. Bodiard, Cambridge/UK

Learning Objectives:
1. To learn about a structured reporting approach to angiographic studies of supra-aortic arteries.
2. To understand the role of post-processing techniques and quantitative analysis of arterial stenosis.
3. To be able to answer specific clinical questions about supra-aortic arterial occlusive diseases.

09:00

A-242  B. CTA and MRA of thoracic and abdominal aorta
H.J. Michaud, Mannheim/DE

Learning Objectives:
1. To learn about a structured reporting approach to aneurysmal and obstructive diseases.
2. To learn the classifications of aneurysmatic aortic diseases.
3. To understand the role of post-processing techniques in aortic diseases.
4. To be able to answer specific clinical questions about aortic diseases.

08:30–10:00 Room N/O

Interventional Radiology

RC 809  What should every radiologist know about the endovascular treatment of abdominal aortic aneurysms?

08:30

A-244  Chairman’s introduction
H. Rousseau, J. Auriol, C. Lions, F. Mokrane; Toulouse/FR

08:35

A-245  A. Pre-therapeutic radiological evaluation
J. Raupach, O. Renc, J. Zizka; Hradec Kralove/CZ

Learning Objectives:
1. To learn about the best pretreatment imaging modality.
2. To understand planning and sizing of appropriate stent-graft.
3. To become familiar with critical criteria and vessel morphology.

08:58

A-246  B. EVAR techniques and results
F. Fanelli; Rome/IT

Learning Objectives:
1. To understand indications and contraindications for EVAR.
2. To know more about advantages of different types of stent-graft.
3. To become familiar with percutaneous vascular access.
4. To learn about the latest trials.

09:21

A-247  C. Imaging follow-up and treatment of complications
R. Morgan; London/UK

Learning Objectives:
1. To learn about available imaging methods for follow-up.
2. To become familiar with complications and failure of EVAR.
3. To understand how to treat endoleaks.

Panel discussion:
What are the best imaging methods for follow-up?

08:30–10:00 Room P

Cardiac

RC 803  Practical approach to cardiovascular risk stratification with CT and MRI
Moderator: C. Peebles, Southampton/UK

08:30

A-248  A. Modern views on value of coronary calcium scoring for risk assessment
A. Stadler; Vienna/AT

Learning Objectives:
1. To understand what kind of information calcium scoring can deliver and the appropriate indications.
2. To become familiar with its role in an asymptomatic and in a symptomatic population.
3. To learn about the current data and guidelines supporting its use for assessment of cardiac risk.
**Paediatric**

**RC 812  Imaging the paediatric spine**
Moderator: C.J. Kellenberger, Zürich/CH

**08:30—10:00  Room Q**

1. To learn about the spectrum of tuberculous infection of the spine in childhood.
2. To understand the pathogenesis of TBM and its implications for treatment.
3. To become familiar with imaging of TBM.
4. To appreciate the importance of imaging-pathologic correlation.
5. To consolidate knowledge of neurotuberculosis.

**10:30—12:00  Room A**

**Interactive Teaching Session**

**E³ 920a  Tips and tricks in chest imaging**

**10:30**

1. To learn about common pitfalls in plain radiography of the chest.
2. To become familiar with useful signs in the diagnosis of chest disorders in CT.
3. To appreciate the imaging findings.
4. To learn about the mechanisms that cause errors in image interpretation of chest CT.

**10:25–12.00  Room B**

**ESR meets South Africa**

**EM 3  Imaging HIV and TB**
Welcome by the ESR President:
G.P. Krestin, Rotterdam/NL

Presiding:
J.I. Bilbao, Pamplona/ES
C. Sperryn, Cape Town/ZA

1. To learn about the clinical and imaging spectrum of cerebrovascular disease in HIV infected patients in South Africa.
2. To appreciate the role of other co-factors in the pathogenesis of HIV related cerebrovascular disease.
3. To become familiar with the challenges and technical strategies in the medical and interventional management of these conditions.
1. To understand the impact of chronic chest radiographic changes in a cohort of HIV-infected children.
2. To become familiar with standardised chest radiographic reporting techniques utilised for research in paediatric pulmonary radiology.
3. To consolidate knowledge of paediatric chest radiograph reporting, with particular emphasis on:
   i. The impact of technical factors
   ii. The importance of standardised terminology
   iii. Paediatric-specific normal variants
   iv. Useful chest radiographic signs

Panel discussion:
HIV and TB: What impact do they have on health care workers?


discussion:

Foundation Course: Neuroimaging

E³ 920b Tumours and phacomatosis
Moderator: N. Girard, Marseille/FI

10:30
A-263 A. Brain tumours
M.M. Thurnher, J.M. Wild; Sheffield/UK

Learning Objectives:
1. To learn about the imaging findings and the limitations of conventional MRI in the evaluation of brain tumours.
2. To become familiar with new MRI techniques available for advanced brain tumour imaging.
3. To learn about the potential of functional imaging (fMRI, PET, SPECT) in tumour characterisation, treatment decisions, and follow-up.

11:00
A-264 B. Tumours of the spinal cord
J. Van Goethem, C. Venstermans, F. De Belder, L. van den Hauwe, P. Parizel; Antwerp/BE

Learning Objectives:
1. To become familiar with the imaging findings of primary and metastatic tumours of the spinal cord.
2. To be able to recognise metastatic disease in the extradural, epidural, subdural and paraspinal compartments.
3. To learn how best to use imaging and create the appropriate protocol.

11:30
A-265 C. Phacomatosis
M.A. Papadopoulos, Athens/GR

Learning Objectives:
1. To learn how and when you should image.
2. To consolidate knowledge about conventional neuroimaging findings of the more common phacomatoses.
3. To be informed of the possible applications of advanced neuroimaging techniques.
11:00
A-271 Radiologists’ individual performance: use of standardised test images
A.G. Gale; Loughborough/UK

Learning Objectives:
1. To understand the use of standardised test sets.
2. To comprehend the advantages and limitations of using test sets to measure the radiological performance.

11:30
A-272 Radiologists’ performance: referrers’ view
J.M.L. Bosmans; Gent/BE

Learning Objectives:
1. To become familiar with the views and expectations of referring clinicians concerning communication with the radiologist and more specifically regarding the radiology report.
2. To understand the different needs of particular subgroups of referrers.
3. To become familiar with the views and expectations of referrers regarding structured reporting and its potential effect on productivity and training.

12:15–12:45 Room A
Plenary Session

HL 2 Wilhelm Conrad Röntgen Honorary Lecture
Presiding: J.I. Bilbao; Pamplona/ES

12:15
A-273 Interventional oncology: the era of molecular targeted therapy
J.-F. Geschwind; Baltimore, MD/US

Learning Objectives:
1. To learn about basic principles of cancer biology.
2. To understand the importance of tumour metabolism and recognise its role in cancer growth.
3. To appreciate the growing impact of image-guided therapies for cancer.

12:30–13:30 Room N/O
The Beauty of Basic Knowledge: Head and Neck

MC 24C Main pipelines of the neck: pharynx and larynx

12:30
A-274 Main pipelines of the neck: pharynx and larynx
M. Becker; Geneva/CW

Learning Objectives:
1. To become familiar with the anatomy of the pharynx and larynx.
2. To learn how to choose and tailor imaging techniques according to clinical presentation.
3. To appreciate the most common pathologies affecting these structures.
4. To be able to provide a useful differential diagnosis of pharyngeal and laryngeal lesions.

12:30–13:30 Room B
EFRS meets Spain

EM 5 Knowledge development as a tool for radiographers’ professional improvement
Presiding: G. Paulo; Cominbra/PT, C. Ruiz Blanco; Madrid/ES

14:00
A-284 Introduction
G. Paulo, C. Ruiz Blanco; Cominbra/PT, Madrid/ES

Session Objectives:
1. To understand Spanish radiographers’ education and professional status and its comparison with other European countries.
2. To learn about the role of radiographer within the framework of the Spanish health system.
3. To learn about areas of professional development for radiographers in Spain.

14:05
A-285 The Spanish radiographer’s role in advanced MRI research
E. Alfayate Sáez; Madrid/ES

Learning Objectives:
1. To understand the role of radiographer in a MRI research centre.
2. To understand the daily activity in a MRI research center and the continuous professional development related to it.
3. To learn about the potential areas of research development in MRI.

14:23
A-286 The radiographer’s specialisation in ultrasound: two decades of experience in a public hospital
M.P. Peña Fernández; Getafe/ES

Learning Objectives:
1. To understand the role of the radiographer in ultrasound.
2. To learn about inter-professional relations in ultrasound.
3. To appreciate the advantages of a radiographer in ultrasound for radiology department outcomes and for the quality of patient care.

14:41
A-287 Interlude: Radiology and Spanish art
C. Ruiz Blanco; Madrid/ES

14:46
A-288 The radiographer as the interface between patient and technology in promoting safety in radiation protection
J.A. Soria Jerez; Madrid/ES

Learning Objectives:
1. To learn how to enhance patient safety in radiation protection.
2. To learn about radiographers’ role in optimising procedures.
3. To understand the continuous professional development requirements needed to maintain high standards in patient safety.
15:04
A-289 Educational status of radiographers in Spain: comparison with the EU
M.R. Soto García; Barcelona/ES

Learning Objectives:
1. To understand the Spanish radiography education model.
2. To learn about the limitations of Spanish education on free movement on professionals in Europe.
3. To learn about solutions for education-model development regarding professional harmonisation.

Panel discussion:
Could a transnational and multi-professional combined statement contribute to professional development?

15:22

Interactive Teaching Session
E³ 1120 Breast cancer
16:00
A-296 A. Detection
C.S. Balleyguier; Villejuif/FR

Learning Objectives:
1. To learn the respective role of each imaging technique in the diagnosis of breast cancer.
2. To learn about common pitfalls in the diagnosis of breast cancer.

16:45
A-297 B. Follow-up
G. Forrai; Budapest/HU

Learning Objectives:
1. To understand the common features of recurrent breast cancer.
2. To learn how to establish imaging follow-up protocols or breast cancer.

Urogenital Imaging
16:00–17:30 Room C

CC 1121 Stones: diagnosis and intervention
Moderator: N.C. Cowan; Oxford/UK

16:00
A-302 A. Imaging patients with renal colic
G. Fieni-Pepe; St. Pölten/AT

Learning Objectives:
1. To learn about imaging approaches to patients with renal colic.
2. To become familiar with the technical aspects and different approaches to PCNL.
3. To appreciate the importance of recognising and avoiding complications.

16:28
A-300 Evaluation of response in multiple myeloma
J. Hillengass; Heidelberg/DE

Learning Objectives:
1. To understand the pathophysiologic mechanisms of multiple myeloma.
2. To be able to compare the significance of imaging and serological markers for response evaluation in myeloma.
3. To assess the significance of the depth of response to systemic treatment.

16:51
A-301 Evaluation of response in lymphoma with PET/CT
S.F. Barrington; London/UK

Learning Objectives:
1. To understand the role of interim PET/CT in the evaluation of metabolic response to lymphoma.
2. To become aware of proposed reporting criteria developed for assessment of interim PET/CT.
3. To get an overview of current clinical trials exploring the role of response adapted therapy according to PET/CT.

State of the Art Symposium
SA 11 Evaluation of response in haematological malignancy
16:00
A-298 Chairman’s introduction
E. de Kerviler; Paris/FR

Session Objectives:
1. To become reacquainted with the standard criteria for therapeutic response in myeloma and lymphoma.
2. To demonstrate the role of CT, MRI and PET in the assessment of therapeutic response.
3. To show that functional imaging is now essential for patient evaluation at baseline and follow-up.
4. To consider future imaging biomarkers in the assessment of response.

16:20
A-303 B. Percutaneous treatment of renal stones
S. Mousa; Edinburgh/UK

Learning Objectives:
1. To appreciate the importance of imaging, stone selection and planning for percutaneous nephron-lithotomy (PCNL).
2. To become familiar with the technical aspects and different approaches to PCNL.
3. To appreciate the importance of recognising and avoiding complications.

16:40
A-304 C. Intervention in ureteral obstruction and ureteral trauma
A. Magnusson; Uppsala/SE

Learning Objectives:
1. To learn about imaging approaches to patients with ureteral obstruction.
2. To understand when and how to treat a patient with ureteral trauma.
3. To learn more about how to perform a nephrostomy.

17:00
A-305 D. Interactive case discussion
N.C. Cowan; Birmingham/UK

Postgraduate Educational Programme
18:2

CLICK (Clinical Lessons for Imaging Core Knowledge): Never without Arteries
CC 1118 Stroke
Moderator: M.M. Thurnher; Vienna/AT

16:00
A-306 A. Clinical considerations
P.M. Parizel; Antwerp/BE

Learning Objectives:
1. To become familiar with the frequency and causes of stroke.
2. To learn about the most important risk factors and predisposing diseases.
3. To learn about the importance of imaging for treatment decision-making and planning.
A-307 B. Imaging techniques and typical findings
J. Vymazal; Prague/CZ

Learning Objectives:
1. To learn about state-of-the-art imaging in cases of suspected stroke.
2. To discuss potential pros and cons of using MR and CT.
3. To become familiar with most recent innovations in stroke imaging.

A-308 C. Interactive case discussion: what is next after diffusion and perfusion?
A. Dörfler; Erlangen/DE

Learning Objectives:
1. To become familiar with typical cases demonstrating the crucial role of imaging modalities in the diagnosis and treatment decision-making in ischaemic stroke.
2. To consolidate knowledge of the selection of the appropriate imaging technique, image interpretation and image based treatment recommendation.
3. To learn about the importance of imaging for treatment decisions and planning.

A-309 A. Anterior cranial fossa with special emphasis on olfactory apparatus lesions
T. P. J. Duprez; Brussels/BE

Learning Objectives:
1. To learn the imaging techniques of the anterior skull base with an emphasis on the olfactory apparatus.
2. To become familiar with the imaging findings.
3. To understand how to differentiate between lesions in the anterior skull base.

A-310 B. Middle cranial fossa pathologies
A. Borges; Lisbon/PT

Learning Objectives:
1. To become familiar with imaging strategies for the middle cranial fossa.
2. To know more about imaging findings of common lesions.
3. To learn how to differentiate between the lesions in middle cranial fossa.

A-311 C. Posterior cranial fossa pathologies
H. Tanghe; Rotterdam/NL

Learning Objectives:
1. To learn the imaging techniques in the posterior cranial fossa.
2. To become familiar with the imaging findings of common posterior cranial fossa pathologies.
3. To understand how to differentiate between the lesions in the posterior cranial fossa.

A-312 Chairman’s introduction
F.M.H.M. Vanhoenacker; Antwerp/BE

A-313 A. Patterns of injury
P. Van Dyck; Antwerp/BE

Learning Objectives:
1. To know more about the imaging appearances of soft tissue and osteoarticular injury.
2. To become familiar with the patterns of bone and soft tissue injury in the knee.

A-314 B. Inflammatory disease
A. Cotten; Lille/FR

Learning Objectives:
1. To know more about the imaging appearances of soft tissue and osteoarticular inflammation.
2. To become familiar with imaging findings of specific inflammatory conditions.

A-315 C. Soft tissue tumours/tumour-like lesions
J.C. Vilanova; Girona/ES

Learning Objectives:
1. To know more about the spectrum of intra and para-articular soft tissue tumours, and soft tissue tumour-like lesions.
2. To become familiar with US and MRI findings of specific soft tissue lesions.

Panel discussion:
What are the remaining clinical questions that imaging currently cannot answer and how can we answer them in the future?

A-316 Chairman’s introduction
B. Hamm; Berlin/DE

Session Objectives:
1. To learn about state-of-the-art diagnosis of cholangiocarcinoma.
2. To understand the value of surgical and systemic strategies in therapy.
3. To appreciate image-guided interventional treatment.

A-317 Surgery of hilar and extrahepatic cholangiocarcinoma
P. Neuhaus; Berlin/DE

Learning Objectives:
1. To become familiar with prognosis depending on the evolution of surgical approach.
2. To become familiar with surgical decision making; left/right liver resection, hilar resection, pancreatic head resection.
3. To become familiar with technique of extended right hemihepatectomy.
4. To become familiar with liver function, volume.
5. To become familiar with biliary decompression left/right, internal/external.
A-326 Personalised medicine: hope or hype?
O. Golubnitschaja; Bonn/DE

Learning Objectives:
1. To understand the definition of personalised medicine.
2. To learn about some of the successful examples of personalised healthcare.
3. To understand the concept of theranostics: the combination of targeted imaging and targeted therapy.

Panel discussion:
- Is imaging providing an added value to the 'omics' of personalised medicine?
Neuro

RC 1111  Brain tumours: advanced imaging techniques in daily practice - do we really need them?
Moderator: Z. Merhemic, Sarajevo/BA

16:00  A-330 A. Diffusion-weighted imaging (DWI) and diffusion tensor imaging (DTI)
M. Law; Los Angeles, CA/US

Learning Objectives:
1. To appreciate DWI in the characterisation of focal brain lesions.
2. To understand how to differentiate between tumoural and non-tumoural disease using DWI.
3. To consolidate knowledge on how to combine DWI with other advanced MRI tools.
4. To find out if DTI is really useful in the clinical setting or merely a mathematical algorithm of the tensor.

16:30  A-331 B. Perfusion imaging
Y. Özsunar; Aydın/TR

Learning Objectives:
1. To appreciate the value of perfusion imaging.
2. To understand why perfusion imaging is needed.
3. To become familiar with principles, applications, and pitfalls of various perfusion imaging techniques.
4. To consolidate knowledge of perfusion imaging of various brain masses that can be encountered in daily practice.

17:00  A-332 C. Follow-up after treatment
P.C. Maly Sundgren; Lund/SE

Learning Objectives:
1. To understand the present traditional model for the follow-up and monitoring of brain tumour treatment.
2. To become familiar with different imaging biomarkers for early assessment of brain tumour treatment response.
3. To consolidate presently available knowledge and ideas on brain tumour imaging follow-up for future brain tumour treatment and monitoring of response.

Physics in Radiology

RC 1113  Cone-beam imaging
Moderators: O. Ciraj-Bjelac; Belgrade/RS, A. Trianni, Udine/IT

16:00  A-336 A. Fundamentals of cone-beam imaging
M. Kachelrieß; Heidelberg/DE

Learning Objectives:
1. To understand the principles of volumetric image formation with flat detectors.
2. To understand the difference between CBCT and MSCT.
3. To learn about reconstruction techniques and image processing.
4. To become acquainted with the important image quality parameters.

16:30  A-337 B. Medical applications of CB imaging
M. Grass; Hamburg/DE

Learning Objectives:
1. To become acquainted with the applications of CB imaging.
2. To learn about systems design and parameters.
3. To understand image quality characteristics.
4. To learn how to use cone beam images in image guided interventions.

17:00  A-338 C. 3D dentomaxillofacial imaging
K. Horner; Manchester/UK

Learning Objectives:
1. To become acquainted with CBCT systems for dentomaxillofacial imaging.
2. To learn about image quality characteristics and patient dose compared to other techniques.
3. To learn how to access CB images and influence the clinical outcome.

Interventional Radiology

RC 1109  Update on biliary interventions

16:00  A-339 Chairman’s introduction
M. Krokidis, A.A. Hatzidakis; Cambridge/UK, Iraklion/GR

Session Objective:
1. To review the various interventional techniques for the treatment of complex biliary diseases.

16:05  A-340 A. Fistula and benign stenosis
M. Bezzi; Rome/IT

Learning Objectives:
1. To know about the etiology of fistulas and benign stenoses.
2. To become familiar with the various imaging modalities and findings in benign fistulas and stenoses.
3. To understand the techniques, results, and complications of interventional treatments.
A-341 B. Interventions after liver transplantation
P.P. Goffette; Brussels/BE

Learning Objectives:
1. To know about the appropriate imaging algorithm for the detection of biliary complications after liver transplantation.
2. To become familiar with the techniques of interventional treatment of biliary complications after liver transplantation.
3. To understand the results and complications in comparison with surgical management.

A-342 C. In tandem with endoscopy
D.F. Martin; Manchester/UK

Learning Objectives:
1. To be aware of the indications for tandem use of percutaneous and endoscopic approach.
2. To learn the tips and tricks of tandem technique.
3. To learn about the results and complications of tandem treatment.

Panel discussion:
Are there new possibilities in the area of biliary interventions?

16:00–17:30 Room P

Radiographers

RC 1114 Hot topics in magnetic resonance imaging

A-343 A. New trends in MR safety
P. Bauer; Vienna/AT

Learning Objectives:
1. To become familiar with the standard MRI safety measures (metal check and SAR limits).
2. To understand the new challenges for MRI safety given the technological advances in high-field magnets, faster gradients coils, hybrid MR imaging and new contrast agents.
3. To learn about updated MRI safety guidelines with reference to recent literature, white papers and accredited MRI safety websites.
4. To appreciate the MRI safety implications for pregnant women, neonates and the general paediatric population.

A-344 B. MR spectroscopy: the role of radiographers in data optimisation
J. McNulty; Dublin/IE

Learning Objectives:
1. To learn about the basic principles of MR spectroscopy contrasting them to the basic principles of MR imaging.
2. To understand the benefits of using MRS in clinical practice.
3. To appreciate how image quality is defined in MRS, to highlight the parameters which affect image quality in MRS and how these can be modified by the radiographer.
4. To become familiar with examples of common MRS artefacts and how these can be corrected by the radiographer.

A-345 C. Challenges and opportunities in paediatric MR
V. Syrigariotis; Athens/GR

Learning Objectives:
1. To learn about the basic anatomical/physiological differences within the paediatric population, contrasting it with the general adult population.
2. To understand the MRI scan parameter modifications required to accommodate these differences and their trade-offs.
3. To become familiar with examples of improved, optimised imaging protocols against standard, preset, commercially available adult imaging protocols.
4. To consolidate knowledge on the optimal use of equipment to achieve a successful and clinically useful paediatric MRI exam.
Interactive Teaching Session

E³ 1220 Pitfalls in brain imaging

08:30
A-346 A. CT
L. van den Hauwe, S. Pugliese, J.W. Van Goethem, C. Venstermans, F. De Belder, T. van der Zijden, M. Voormolen, P.M. Parizel; Antwerp/BE, Rome/IT

Learning Objectives:
1. To learn about common pitfalls in CT evaluation of the brain.
2. To become familiar with anatomical variants, potentially mimicking disease.

09:15
A-347 B. MRI
M. Essig; Erlangen/DE

Learning Objectives:
1. To learn about common pitfalls in MRI evaluation of the brain.
2. To become familiar with anatomical variants, potentially mimicking disease.

Urogenital Imaging

CC 1221 Retroperitoneal anatomy, variants and diseases
Moderator: U.G. Mueller-Lisse; Munich/DE

08:30
A-351 A. Retroperitoneal anatomy: an embryology based approach
F.M. Danza; Rome/IT

Learning Objectives:
1. To understand the development of the retroperitoneum during the embryo development, introducing the concept of a unique subperitoneal space.
2. To understand the importance of fascial planes in determining the pattern of diffusion of diseases.
3. To apply these new concepts during routine diagnostic work.

09:00
A-352 B. Anatomical variants and benign diseases
S. Merran; Paris/FR

Learning Objectives:
1. To learn about the most important variants of retroperitoneal vessels and about renal anomalies.
2. To understand the role of radiology in patients with retroperitoneal fibrosis and infections.
3. To become familiar with benign retroperitoneal tumours and learn about the clues for differential diagnosis.

09:30
A-354 D. Interactive case discussion
U.G. Mueller-Lisse; Munich/DE

CLICK (Clinical Lessons for Imaging Core Knowledge): Never without Arteries

CC 1218 Chest pain: vascular non-cardiac causes
Moderator: E. Brountzos; Athens/GR

08:30
A-355 A. Clinical considerations
R. Iezzi; Rome/IT

Learning Objectives:
1. To become familiar with clinical diagnostic algorithms in cases of non-cardiac acute chest pain.
2. To learn about the constituents of acute aortic syndrome.
3. To become familiar with prognosis, treatment and outcome and learn about the influence of imaging on treatment decisions in acute chest pain.

09:00
A-356 B. Imaging techniques and typical findings
F. Wolf; Vienna/AT

Learning Objectives:
1. To learn about state-of-the-art CT angiographic imaging in acute chest pain (after ruling out MI).
2. To become familiar with the techniques and advantages of ECG gating in CT angiographies of acute chest pain.
3. To discuss the potential role of additional MR angiography.
09:30 A-357 C. Interactive case discussion: what is really important? T.R.C. Johnson, Munich/DE

Learning Objectives:
1. To become familiar with typical cases illustrating the role of imaging modalities in the diagnosis and differential diagnosis of acute chest pain.
2. To understand the importance of quantification and standardisation of imaging technique, image interpretation and image-based treatment recommendations.
3. To understand the most important information urgently needed for treatment decisions and planning.

08:30–10:00 Room D2

Oncologic Imaging: Follow-up of Systemic and Local Therapies

CC 1219 Assessing HCC response Moderator: R. Lencioni, Pisa/IT

08:30 A-358 A. Systemic therapies V. Wiener, M. Ronot, M. Zappa, S. Faivre, E. Raymond, Clichy/FR

Learning Objectives:
1. To understand the importance of quantification and standardisation of imaging modalities in the diagnosis and differential diagnosis of acute chest pain.
2. To understand the advantages and disadvantages of different imaging modalities.
3. To become familiar with the imaging findings seen in overuse injuries of the upper limb.

09:00 A-359 B. Endovascular therapies R. Salem, Chicago/US

Learning Objectives:
1. To learn the spectrum of overuse injuries sustained by footballers at the ankle joint.
2. To become familiar with post-treatment imaging after ablative therapies according to type of therapy.

09:30 A-360 C. Ablative therapies C. Ayuso, Barcelona/ES

Learning Objectives:
1. To learn about difficulties in HCC assessment with local therapy.
2. To consolidate knowledge of the selection of the appropriate imaging technique, image interpretation and image-based treatment recommendations.
3. To become familiar with the imaging findings seen in overuse injuries of the upper limb.

08:30–10:00 Room E1

Musculoskeletal

RC 1210 Overuse injuries in sport: a multimodality approach Moderator: E. Llopis, Valencia/ES

08:30 A-361 A. Overuse injuries in the footballer’s ankle J-P. Pharo, Lille/FR

Learning Objectives:
1. To become familiar with the types of chronic injuries seen in the footballer’s ankle.
2. To become familiar with the imaging findings seen in overuse injuries of the upper limb.

09:00 A-362 B. Overuse injuries in the gymnast’s spine M.C. De Jonge, Amsterdam/NL

Learning Objectives:
1. To become familiar with the types of chronic injuries seen in the gymnast’s spine.
2. To understand the strengths and weaknesses of different imaging modalities for imaging these injuries.

09:30 A-363 C. Upper limb overuse injuries in golfers P.J. O’Connor, Leeds/UK

Learning Objectives:
1. To understand the types and mechanisms of overuse injuries seen in the upper limb in golfers.
2. To understand the advantages and disadvantages of different imaging modalities.
3. To become familiar with the imaging findings seen in overuse injuries of the upper limb.

08:30–10:00 Room E2

Neuro

RC 1211 Stroke: is the prognosis getting any better?

08:30 A-364 Chairman’s introduction J-P. Pharo, Lille/FR


Learning Objectives:
1. To become familiar with the endovascular treatment indications of extracranial and intracranial arterial disorders.
2. To understand the endovascular treatment strategies aimed at stroke prevention.
3. To understand the natural evolution of untreated stroke.
4. To recognise the present and future challenges for PTA and stenting of extracranial and intracranial arteries.

09:21 A-366 B. Stroke: is there really any therapy? V. Mendes Pereira, K.-O. Lovblad, Geneva/CH

Learning Objectives:
1. To become familiar with a comprehensive imaging protocol in patients with suspected stroke.
2. To become familiar with various evaluation criteria of HCC.
3. To become familiar with the natural history of extracranial and intracranial arterial disorders.
4. To become familiar with typical cases illustrating the role of imaging techniques in the diagnosis and differential diagnosis of acute chest pain.

09:44 Panel discussion: What is the future of stroke prevention and treatment?

08:30–10:00 Room F1

Special Focus Session

SF 12 Quantitative imaging biomarkers in cardiac radiology

08:30 A-367 Chairman’s introduction A. van der Lugt, Rotterdam/NL

Session Objectives:
1. To appreciate the increasing role of imaging biomarkers in radiological research and clinical practice.
2. To understand the importance of quantification and standardisation of imaging biomarkers.
3. To become familiar with the spectrum of quantitative imaging biomarkers in cardiac radiology.
08:33

A-369 Imaging biomarkers
J.-P. Vallée; Geneva/CH

Learning Objectives:
1. To understand the concept of imaging biomarkers.
2. To learn about the different types of biomarkers (anatomical/functional/molecular).
3. To understand the different applications of imaging biomarkers (detection, prediction, response).
4. To learn about the standardisation and validation of imaging biomarkers.

08:45

A-370 Imaging biomarkers for myocardial function
J. Bogaert; Leuven/BE

Learning Objectives:
To become familiar with the quantitative imaging biomarkers of:
1) cardiac mass (MRI/CT)
2) ventricular volume (MRI/CT)
3) ventricular function (MRI/CT)

09:05

A-371 Imaging biomarkers of myocardial viability
P. Croisille; Saint-Etienne/FR

Learning Objectives:
To become familiar with the quantitative imaging biomarkers of:
1) infarct size using delayed enhancement (MRI/CT)
2) areas at risk in myocardial infarction using T2w MRI
3) cardiac contractility using cine or tag MRI after low dose dobutamine challenge

09:25

A-372 Imaging biomarkers of myocardial ischaemia
L. Natale; Rome/IT

Learning Objectives:
To become familiar with the quantitative imaging biomarkers of:
1) myocardial perfusion (MRI/CT),
2) cardiac contraction after high dose dobutamine challenge (MRI)
3) coronary atherosclerosis (CT)

09:45

Panel discussion: How should we implement quantitative biomarkers in clinical practice?

09:30–10:00 Room F2

Breast

RC 1202 Multi-modality breast imaging

08:30

A-373 Chairman’s introduction
M. Lesaru; Bucharest/RO

08:35

A-374 A. Conventional, functional and interventional lymph node assessment
P.D. Britton; Cambridge/UK

Learning Objectives:
1. To learn about normal lymph node morphology.
2. To understand criteria suggestive of morphological abnormality.
3. To become familiar with factors affecting overall sensitivity of preoperative lymph node assessment.

08:58

A-375 B. Multi-modality assessment of the breast following oncoplastic surgery
M. Torres-Tabanera, S. Perez-Rodrigo; Madrid/ES

Learning Objectives:
1. To learn about the range of oncoplastic breast procedures in current clinical practice.
2. To become familiar with imaging features resulting from oncoplastic surgery.
3. To appreciate the potential pitfalls encountered while imaging such cases.

09:21

A-376 C. Image guided therapy in breast lesions: indications and techniques
G. Manenti, P. Simonetti; Rome/IT

Learning Objectives:
1. To understand indications for therapeutic interventions in malignant and benign lesions.
2. To learn about current image guided therapeutic techniques in malignant and benign lesions.
3. To appreciate possible future developments of therapeutic interventions.

09:44

Panel discussion: How is the evolution of multi-modality breast imaging changing the nature of the multi-disciplinary meeting (MDM)?

08:30–10:00 Room G/H

Genitourinary

RC 1207 How I report
Moderator: G.M. Villeirs; Gent/BE

08:30

A-377 A. Female pelvis MRI
A.G. Rockall; London/UK

Learning Objectives:
1. To learn a structured reporting approach to MR imaging.
2. To learn a structured reporting approach to uterine and cervical cancer staging.
3. To learn a structured reporting approach to adnexal masses.

09:00

A-378 B. Prostate MRI
J.J. Fütterer; Nijmegen/NL

Learning Objectives:
1. To learn a structured reporting approach to MR imaging.
2. To learn the most essential points and details to be reported in prostate cancer patients.
3. To understand the major weaknesses of a prostate MR report.

09:30

A-379 C. CT urography
N.C. Cowan; Birmingham/UK

Learning Objectives:
1. To learn how to read and report CT urography.
2. To understand how to optimise CT urography for haematuria and urothelial cancer.
3. To report specimen cases and self-assess your own performance.

08:30–10:00 Room I/K

Chest

RC 1204 Lung cancer staging in 2013

08:30

A-380 Chairman’s introduction: the latest TNM classification
J. Biederer; Heidelberg/DE

08:35

A-381 A. Local tumour staging
L. Natale; Rome/IT

Learning Objectives:
1. To learn about the T staging of lung cancer.
2. To become familiar with the current state of the different imaging technique to assess the T stage.
3. To appreciate limitations and pitfalls.
A-382 B. Lymph node staging

Learning Objectives:
1. To learn about N staging in lung cancer.
2. To learn the current state of endobronchial ultrasound for intrathoracic intervention.
3. To become familiar with limitations and pitfalls.

A-383 C. Distant metastasis and whole body imaging

Learning Objectives:
1. To appreciate the role of PET/CT and whole-body MRI.
2. To learn about the sensitivity and specificity.
3. To become familiar with the role of imaging in early response evaluation and in follow-up.

A-384 A. Radiation risks for patients and staff

Learning Objectives:
1. To get the latest information on stochastic risks in radiology.
2. To understand the risks for children compared to adults.
3. To get the latest information on tissue reaction to medical procedures.
4. To learn about radiation cataract and its dose dependence.

A-385 B. Risk in MRI

Learning Objectives:
1. To learn about the risks for patients from MRI procedures.
2. To be informed about the contraindications for MRI scan.
3. To learn about risks for staff in an MRI department.

A-386 C. Communication of risk to patients and public

Learning Objectives:
1. To become familiar with communicating risk according to the imaging modality.
2. To become familiar with important rules in communication.
3. To understand the relationship between threat/hazard and perception of parents regarding imaging for their child.
4. To learn how to select an appropriate risk communications strategy suited to parents and children.

Panel discussion:
How to communicate risk to patients and the public?
3. To appreciate the potential impact of patient specific protocols on image quality and patient dose through the use of sample cases.
4. To discover a simple framework which could assist radiographers in introducing patient specific examination protocols to their departments.

**08:30–10:00 Room Q**

**Paediatric**

**RC 1212 Oncologic imaging: how to image, follow up and report**

**08:30 A-394 Chairman's introduction**

**D. Roebuck; London/UK**

**08:35 A-395 A. Renal and adrenal tumours in children**

**A.M.J.B. Smets; Amsterdam/NL**

*Learning Objectives:*
1. To appreciate the role of US, CT, MRI and scintigraphy.
2. To become familiar with the imaging findings and the main differential diagnoses.
3. To learn about the imaging strategies for diagnosis and staging.

**08:58 A-396 B. Paediatric liver malignancies**

**D. Roebuck; London/UK**

*Learning Objectives:*
1. To understand the role of US, CT and MRI.
2. To become familiar with the imaging findings and the main differential diagnoses.
3. To learn the imaging strategies for diagnosis and in staging.

**09:21 A-397 C. Oncologic imaging in the paediatric brain**

**G. Hahn; Dresden/DE**

*Learning Objectives:*
1. To understand the role of CT, MRI and MRS.
2. To become familiar with the imaging findings and the main differential diagnoses.
3. To learn about the imaging findings of post-chemo/radiation therapy conditions and complications.

**Panel discussion:**

*How far should the radiologist go in suggesting tumour recurrence or post-treatment complications?*

**09:44**

**08:30–10:00 Room Z**

**Professional Challenges Session**

**PC 12 Legal matters related to multimodality techniques**

**08:30 A-398 Chairman’s introduction**

**K. Åhlström Riklund; Umeå/SE**

*Session Objectives:*
1. To learn about legal matters in multimodality imaging in different parts of Europe, in radiology and nuclear medicine.
2. To understand the challenges in hybrid imaging, with respect to both radiology and nuclear medicine.
3. To consolidate knowledge of the situation in different parts of Europe.

**08:35 A-399 Radiological legal matters in eastern Europe**

**M. Studniarek; Gdansk/PL**

*Learning Objectives:*
1. To learn about legal matters in multimodality imaging in eastern Europe.
2. To understand the specific role and diagnostic applications of PET/CT imaging as a result of national guidelines in eastern Europe, with the example of Poland.
3. To consolidate knowledge of the limits of the application of diagnostic CT in PET/CT units in radiology and nuclear medicine procedures listed (officially identified) in Poland.

**08:53 A-400 Legal matters in nuclear medicine**

**G.K. von Schulthess; Zurich/CH**

*Learning Objectives:*
1. To understand issues facing tracer development and clinical use of tracers.
2. To understand the process of getting new tracers approved for clinical use.
3. To understand the process of getting reimbursement for integrated imaging procedures.

**09:11 A-401 Legal matters in Scandinavia**

**A. Perkins; Nottingham/UK**

*Learning Objectives:*
1. To learn about the origin of the radiation protection framework.
2. To appreciate the framework for radiation protection at international, regional and national levels.
3. To understand the responsibilities of different parties within the working environment.

*Panel discussion:*

*A discussion with questions from the audience about the differences across Europe*

**09:47**

**10:30–12:00 Room B**

**ESR meets Chile**

**EM 4 Topics of ongoing radiological research from the Andes**

*Welcome by the ESR President:*

**G.P. Krestin; Rotterdam/NL**

*Presiding:*

**J.I. Bilbao; Pamplona/ES**

**M.A. Pinochet; Santiago/CL**

**10:30 A-402 International, regional, national and local framework requirements**

**A. Perkins; Nottingham/UK**

*Learning Objectives:*
1. To learn about the origin of the radiation protection framework.
2. To appreciate the framework for radiation protection at international, regional and national levels.
3. To understand the responsibilities of different parties within the working environment.

**10:35 A-404 TI-RADS: a US classification of thyroid nodules related to cancer risk**

**E. Horvath; Santiago/CL**

*Learning Objectives:*
1. To learn about an ultrasonographic-based pattern classification that enables a cancer risk approach to an accurate selection of thyroid nodules.
2. To get a glimpse of unique radiological and non-radiological topics in Chile.
3. To understand the potential impact of patient specific protocols on image quality and patient dose through the use of sample cases.
4. To discover a simple framework which could assist radiographers in introducing patient specific examination protocols to their departments.
10:55  A-405 Interlude: Chile, land of geographical and cultural contrasts  
G. Soto Giordani, Santiago/CL

11:00  A-406 Neuroimaging in epilepsy: in search of invisible lesions  
M. Galvez, Santiago/CL  
Learning Objective:  
1. To learn about solutions to improve visualisation of epileptogenic lesions not visible on conventional MRI.

11:20  A-407 Interlude: Chile, land of wine and poets  
G. Soto Giordani, Santiago/CL

11:25  A-408 MDCT patterns in mesenteric ischaemia: usefulness in predicting clinical outcome  
A. Huete, Santiago/CL  
Learning Objectives:  
1. To learn to identify the most frequent patterns of ischaemic bowel wall damage in patients with arterial mesenteric ischaemia using MDCT angiography.  
2. To correlate patterns of bowel wall ischaemia on MDCT with clinical outcome.  
3. To identify secondary, non-specific findings of bowel ischaemia on MDCT that signal a potential adverse clinical course.

Panel discussion:  
Creating networks between Latin American and European radiology: a unique opportunity for collaborative research projects

10:30–12:00 Room C  
Urogenital Imaging

CC 1321 The female pelvis  
Moderator: E. Sala, New York, NY/US

10:30  A-409 A. Imaging congenital anomalies of the female genital system  
K. Kinkel, Chêne-Bougeries/CH  
Learning Objectives:  
1. To understand Mullerian duct anomalies through embryology and its classification.  
2. To learn about the indications of MRI or 3D US according to clinical and sonographic findings.  
3. To understand imaging technique and report requirements and the impact of imaging results on treatment options.

10:50  A-410 B. Benign ovarian masses  
R. Forstner, Salzburg/AT  
Learning Objectives:  
1. To become familiar with common and rare benign adnexal lesions.  
2. To appreciate the added value of CT/CAT, MRI/MRA, and DSA in patients with non-traumatic intracranial haemorrhage.  
3. To discuss the value of T2* (GRE/SWI) in evaluation of causes of intracranial haemorrhage.

11:30  A-415 C. Imaging the infertile couple  
J. McHugo, Birmingham/UK  
Learning Objectives:  
1. To understand Mullerian duct anomalies through embryology and its classification.  
2. To learn about the indications of MRI or 3D US according to clinical and sonographic findings.  
3. To understand imaging technique and report requirements and the impact of imaging results on treatment options.

11:10  A-411 D. Interactive case discussion  
E. Sala, New York, NY/US

10:30–12:00 Room Q  
RTF - Radiology Trainees Forum

TF 1 Highlighted Lectures  
Moderators: D. Bulja, Sarajevo/BA, V.H. Koen, Harleem/NL

10:30  A-413 Emergency radiology management in patients with polytrauma  
U. Linsenmaier, L.L. Geyer, S. Wirth, Munich/DE  
Learning Objectives:  
1. To understand the complex up to date radiological management of patients with polytrauma/multiple trauma.  
2. To become familiar with basic concepts, MDCT protocols and major findings in patients with polytrauma/multiple trauma.

11:00  A-414 Imaging of non-traumatic intracranial haemorrhage  
Z. Merhemic, Sarajevo/BA  
Learning Objectives:  
1. To review different underlying pathologies of non-traumatic intracranial haemorrhage.  
2. To learn how to use CT/CAT, MRI/MRA, and DSA in patients with non-traumatic intracranial haemorrhage.  
3. To discuss the value of T2* (GRE/SWI) in evaluation of causes of intracranial haemorrhage.

11:30  A-415 Case-based learning in radiology  
P. Pokieser, Vienna/AT  
Learning Objectives:  
1. To learn about the basics of case based learning.  
2. To understand the pedagogic potentials of „real world settings“.  
3. To become familiar with case based ESR learning facilities.

12:15–12:45 Room A  
Plenary Session  
HL 3 Santiago Ramón y Cajal Honorary Lecture  
Presiding: J.I. Bilbao, Pamplona/ES

12:15  A-416 Research and science: from individuals to societies - the Ramón y Cajal background  
L. Martí-Bonmatí, Valencia/ES  
Learning Objectives:  
1. To learn about Santiago Ramón y Cajal, a Spanish histologist, neuroscientist, and Nobel laureate.  
2. To appreciate the change from individual research to multidisciplinary working groups.  
3. To understand the concept of science and research, and how communication, grouping and socialisation do influence both.

12:30–13:30 Room P  
The Beauty of Basic Knowledge: Musculoskeletal Imaging

MC 25D Neoplastic/non-neoplastic lesions  
F. H. M. Vanhoenacker, Antwerp/Ghent/Mechelen/BE

12:30  A-417 Neoplastic/non-neoplastic lesions  
F. H. M. Vanhoenacker, Antwerp/Ghent/Mechelen/BE  
Learning Objectives:  
1. To understand the basic principles of diagnosing bone and soft tissue tumours.  
2. To become familiar with the most important entities and their typical imaging presentations.  
3. To learn about the specific advantages and weaknesses of the different imaging modalities.
A-418  The suprahyoid neck: anatomy and diagnostic algorithm of the neck mass

A. Trojanowska; Lublin/PL

Learning Objectives:
1. To become familiar with the compartmental anatomy of the suprahyoid neck.
2. To understand the central role of the parapharyngeal space in the localisation of suprahyoid neck masses.
3. To be able to localise and provide a useful differential diagnosis of a SHN mass.
4. To learn the best imaging approach to the suprahyoid neck.

14:00–15:30 Room A

Interactive Teaching Session

E³ 1420  Common and uncommon errors in plain film and CT imaging of the chest: how to improve your performance

14:00

A-419  Common and uncommon errors in plain film and CT imaging of the chest: how to improve your performance

D. Tack, N. Howarth; 1Baudour/BE, 2Chêne-Bougeries/CH

Learning Objectives:
1. To learn about the common reasons for errors in interpretation of plain film and CT imaging.
2. To understand how a side-by-side comparison of chest x-rays and MDCT of missed lesions can help reduce the busy radiologist’s error rate.
3. To improve the skills required for accurate interpretation of plain film and CT imaging of the chest.

14:00–15:30 Room B

New Horizons Session

NH 14  Imaging of the mind

14:00

A-420  Chairman’s introduction: New insights into the state of consciousness through neuroimaging

S. Sunaert, Leuven/BE

Session Objectives:
1. To become familiar with recent advances in functional brain imaging, and how these lead to ‘the imaging of consciousness’ and ‘reading the mind’.
2. To understand how imaging contributes to the study of the functional connectivity and network topology of the human brain.
3. To understand how these new techniques and insight lead to (pre-)clinical applications.

14:05

A-421  Brain wiring: resting state fMRI

P. Barkhof, Amsterdam/NL

Learning Objectives:
1. To understand the basics of resting-state fMRI.
2. To become familiar with the organisation of intrinsic connections as detected with resting state fMRI in the human brain.
3. To consolidate the current knowledge of brain networks in aging and dementia, and pharmacology research.

14:28

A-422  fMRI in disorders of consciousness: diagnostic and legal challenges

C. Di Perri, S. Laureys; Liège/BE

Learning Objectives:
1. To understand the role of structural MRI, DTI and spectroscopy in severe brain injury.
2. To become familiar with the role of resting state and activation fMRI in diagnosis and prognosis after coma.
3. To understand which fMRI paradigms are „consciousness tests” in coma and related condition.

14:51

A-423  fMRI of cognitive functions: discriminating normal aging, minimal cognitive impairment and Alzheimer’s disease

A. Falini; Milan/IT

Learning Objectives:
1. To consolidate knowledge of dementia and Alzheimer’s disease clinically.
2. To become familiar with common imaging features of dementia and Alzheimer’s disease.
3. To appreciate the results from fMRI and DTI and other advanced neuroimaging techniques used in research of dementia and Alzheimer’s disease.

Panel discussion:

15:14  New insights into the state of consciousness through neuroimaging. Where are we and where should we go?

14:00–15:30 Room C

Urogenital Imaging

CC 1421  The male genital system

Moderator: J.O. Barentsz; Nijmegen/NL

14:00

A-424  A. Imaging of prostate cancer: an update

J.J. Fütterer; Nijmegen/NL

Learning Objectives:
1. To understand multiparametric MR imaging techniques.
2. To learn how to interpret prostate MRIs.
3. To understand the potential of new MRI developments.

14:20

A-425  B. Scrotal tumours

P.S. Sidhu; London/UK

Learning Objectives:
1. To understand the pathological types of primary and secondary tumours of the testis.
2. To appreciate the US features of the various histological types of testicular tumours.
3. To understand how imaging influences treatment and follow-up.

15:00

A-427  D. Interactive case discussion

J.O. Barentsz; Nijmegen/NL
14:00–15:30  Room D1

CLICK (Clinical Lessons for Imaging Core Knowledge): Never without Arteries

**CC 1418 Angina, non-occlusive mesenteric ischaemia (NOMI) and friends: vascular causes of acute abdomen**

Moderator: O. Chan, London/UK

14:00

**A-428 A. Clinical considerations**

P. Papanicolaou, Toronto, ON/CA

**Learning Objectives:**
1. To learn about the frequency and importance of the vascular causes of an acute abdomen.
2. To learn about the differential diagnosis as well as the different vascular causes of acute abdomen.
3. To learn about prognosis, treatment and outcome of acute abdomen caused by vascular diseases.

14:30

**A-429 B. Imaging techniques and typical findings**

M. Prokop, Nijmegen/NL

**Learning Objectives:**
1. To learn about the importance of selecting the appropriate imaging technique in cases of acute abdomen to detect vascular causes.
2. To become familiar with the typical imaging appearance of the different vascular causes of acute abdomen and their most important differential diagnosis.
3. To become familiar with potential pitfalls and problems of identifying vascular causes of acute abdomen.

15:00

**A-430 C. Interactive case discussion: how to proceed?**

A. Palkó, Szeged/HU

**Learning Objectives:**
1. To learn about the frequency and importance of the vascular causes of an acute abdomen.
2. To learn about the differential diagnosis as well as the different vascular causes of acute abdomen.
3. To become familiar with the typical imaging appearance of the different vascular causes of acute abdomen and their most important differential diagnosis.
4. To become familiar with potential pitfalls and problems of identifying vascular causes of acute abdomen.

14:00–15:30  Room E2

Oncologic Imaging

**RC 1416  The essentials of lymph node imaging of solid tumours: what the radiologist needs to know**

Moderator: W. Prevoo, Amsterdam/NL

14:00

**A-431 A. The zone of cell death and collateral phenomena on cross-sectional imaging: from histopathology to the standardization of terms**

A. Perren, P. Bize, Lausanne/CH

**Learning Objectives:**
1. To understand histopathologic changes after various ablative techniques.
2. To become familiar with post-ablation imaging based on histopathologic correlation of ablation zones in various organs.
3. To learn about the adequate terms for reporting and publishing on post-ablation imaging.

14:30

**A-432 B. PET/CT for the evaluation of ablative therapy: Who? Where? When? Does it help?**

H. Caramella, Villejuif/FR

**Learning Objectives:**
1. To understand who are the best candidates for a PET/CT follow-up of ablative therapies.
2. To learn about what is the optimal timing of PET/CT in the follow-up of ablative therapies.

15:00

**A-433 C. Everyday practice: MR and CT for evaluating response to thermal ablation**

C. Dromain, C. Caramella, L. Vilcot, S. Bidault, F. Bidault, F. Deschamps, Villejuif/FR

**Learning Objectives:**
1. To become familiar with the imaging aspects of successful ablation.
2. To learn about the main pitfalls of post-ablation imaging.
3. To consolidate knowledge of the imaging aspects of most common complications.

14:00–15:30  Room E1

Musculoskeletal

**RC 1410  How I report**

Moderator: M. Padrón, Madrid/ES

14:00

**A-434 A. Soft tissue mass: US/MR**

C. van Rijswijk, Leiden/NL

**Learning Objectives:**
1. To become familiar with the strengths/weaknesses of US/MRI in assessing soft tissue tumours.
2. To understand the US/MRI specific findings that aid diagnosis.
3. To learn a structured approach to reporting.

14:30

**A-435 B. MR of vertebral body collapse**

M. Zanetti, Zurich/CH

**Learning Objectives:**
1. To be able to differentiate benign from malignant causes.
2. To learn about the changes of the vertebral body with time, disease progression and therapy.
3. To learn a structured reporting approach.

15:00

**A-436 C. MR of the unstable shoulder**

M. Zanetti, Zurich/CH

**Learning Objectives:**
1. To learn about the specific imaging findings of instability.
2. To learn about the different types of shoulder instability.
3. To learn a structured approach to reporting.

14:00–15:30  Room D2

Oncologic Imaging

**RC 1419 Follow-up of thermal ablation (part I)**

Moderator: W. Prevoo, Amsterdam/NL

14:00

**A-437 Chairman’s introduction**

R.G.H. Beets-Tan, Maastricht/NL

14:05

**A-438 A. The current criteria for nodal involvement on CT/MRI**

W. Schima, Vienna/AT

**Learning Objectives:**
1. To become familiar with current criteria.
2. To learn about imaging features which are highly specific for nodal disease.
3. To understand the diagnostic performance of cross-sectional imaging.

14:28

**A-439 B. DWI MR: what does it contribute?**

H.C. Thoeny, Berne/CH

**Learning Objectives:**
1. To understand the current criteria for nodal involvement on CT/MRI.
2. To learn about imaging features which are highly specific for nodal disease.
3. To understand the diagnostic performance of cross-sectional imaging.
A-440 C. Nuclear medicine: PET and other nuclear medicine techniques
P.L. Choyke; Bethesda, MD/US

Learning Objectives:
1. To learn which tumours are typically FDG-avid.
2. To understand the factors that contribute to the diagnostic performance of FDG-PET.
3. To become familiar with other nuclear imaging techniques for lymph node imaging.

Panel discussion:
When and how could imaging make diagnostic biopsy unnecessary?

14:00–15:30 Room F1
Special Focus Session
SF 14a Palliative interventional techniques in cancer

14:00 A-441 Chairman’s introduction
K.A. Hausegger; Klagenfurt/AT

Session Objectives:
1. To learn about different palliative techniques in cancer.
2. To understand when to indicate different palliative techniques.
3. To become familiar with the limitations of palliative techniques.
4. To learn when palliation does not help the patient.

14:03 A-442 Cementoplasty of lytic bone metastasis
A. Gangi, J. Garnon, G. Tsoumakidou, I. Enescu; Strasbourg/FR

Learning Objective:
1. To learn about the indications, techniques, clinical results and complications of cementoplasty.

14:21 A-443 Pleural drainage, pleurodesis
F. Gleeson; Oxford/UK

Learning Objectives:
1. To become familiar with the indication for drainage of malignant pleural effusion.
2. To learn about the indications, technique and clinical results of pleurodesis.

14:39 A-444 Percutaneous nephrostomy (PCN) and ureteral stenting
F. Orsi; Milan/IT

Learning Objectives:
1. To become familiar with the indication for percutaneous nephrostomy in patients with malignant urinary obstruction.
2. To learn about the technique, clinical results and complications of PCN and antegrade ureteral stenting.

14:57 A-445 Biliary procedures
M. Krokidis, A.A. Hatzidakis; Cambridge/UK, Iraklion/GR

Learning Objectives:
1. To become familiar with the indications for drainage in malignant biliary obstruction.
2. To learn about the technique, clinical results and complications of percutaneous cholangiography and biliary stenting.

Panel discussion:
How invasive can palliation be? When to say no to palliative treatment?

14:00–15:30 Room F2
Breast
RC 1402 How I report
Moderator: A. Tardivon; Paris/FR

14:00 A-446 A. Mamography
E. Azavedo; Stockholm/SE

Learning Objectives:
1. To become familiar with the basic parts of a structured report.
2. To understand which information a clinician needs in a report of a breast cancer patient.
3. To learn how to compose a report on a patient with a BI-RADS 3 lesion.

14:30 A-447 B. Breast US
J. Camps Herrero; Valencia/ES

Learning Objectives:
1. To become familiar with the indication for drainage of malignant pleural effusion.
2. To learn how to integrate clinical information and radiological findings.
3. To learn how to compose a US report in a breast cancer patient.

15:00 A-448 C. Breast MRI
R.M. Mann; Nijmegen/NL

Learning Objectives:
1. To understand how to integrate conventional (mammography and US) findings in a breast MRI report.
2. To learn how to include morphological and kinetic information and why this needs to be done thoroughly.
3. To become familiar with the necessary skills to compose a report on a breast cancer patient (staging, follow-up, relapse, etc).

14:00–15:30 Room G/H
Special Focus Session
SF 14b Comprehensive CT cardiothoracic imaging: a new challenge for radiologists

14:00 A-449 Chairman’s introduction
L. Bonomo; Rome/IT

Session Objectives:
1. To understand the importance of looking at the heart on a CT scan of the chest.
2. To learn how to optimise integrated cardiothoracic imaging with CT.
3. To become familiar with the key imaging findings and learn how to report.

14:05 A-449 How to optimise integrated cardiothoracic imaging with CT
U.J. Schoepf; Charleston, SC/US

Learning Objectives:
1. To learn how to select CT protocols that enable assessment of the heart-lung axis with the lowest possible radiation dose.
2. To become familiar with the ECG-synchronisation protocols for cardio-thoracic CT image acquisitions.
3. To understand strategies for image post-processing and displaying for evaluating diseases affecting the heart-lung axis.
A-451 Coronary artery imaging from a chest CT examination: when and how
R. Marano, Rome/IT

Learning Objectives:
1. To become familiar with the main clinical indications that could require assessment of the heart and coronary arteries in the course of chest CT.
2. To learn how to recognise the normal and abnormal appearance of heart and coronary arteries commonly observed on chest CT.
3. To learn about the acquisition protocol to couple chest CT with ECG-gated cardiac CT.

A-452 Cardiopulmonary functional imaging from a chest CT examination: when and how
E.J.R. van Beek, Edinburgh/UK

Learning Objectives:
1. To understand the feasibility of CT based cardiopulmonary functional imaging.
2. To be able to grasp clinical scenarios where cardiopulmonary functional CT imaging may be helpful.
3. To be able to set the use of CT within a larger framework of imaging modalities.

Panel discussion:
Is a single CT scan technique and protocol feasible for all the cardiothoracic problems?

A-453 Chairman’s introduction
P. Reimer, Karlsruhe/DE

Session Objectives:
1. To understand the feasibility of CT based cardiopulmonary functional CT imaging may be helpful.
2. To learn how to recognise the normal and abnormal appearance of heart and coronary arteries commonly observed on chest CT.

A-454 A. Acute non-renal reactions to contrast media: new concepts
O. Clément, Paris/FR

Learning Objectives:
1. To understand what are allergic and non-allergic hypersensitivity reactions.
2. To learn the clinical symptoms according to the Ring and Messmer classification.
3. To understand the importance of tryptase sampling and skin testing in the follow-up.

A-455 B. Nephrogenic systemic fibrosis: from pathophysiology to recommendations
H.S. Thomsen, Herlev/DK

Learning Objectives:
1. To understand the underlying pathophysiology.
2. To learn about the clinical implications of the recent recommendations/guidelines.
3. To become familiar with legal issues.

A-456 C. Contrast medium-induced nephropathy and new guidelines
F. Stacul, Trieste/IT

Learning Objectives:
1. To become familiar with newest guidelines on contrast induced nephropathy (CIN).
2. To speculate on trends in dual-modality PET- and SPECT-based imaging technology.

Panel discussion:
What is the most appropriate radiological approach to patients with falling eGFR and when should contrast media be administered and when should it not?

A-457 A. Clinical SPECT/CT and PET/CT
G. Antoch, Düsseldorf/DE

Learning Objectives:
1. To discuss the safety steps to be taken before contrast administering.
2. To learn about the available diagnostic imaging modalities.
3. To speculate on trends in dual-modality PET- and SPECT-based imaging technology.

A-458 B. Clinical MR/PET
N. Belcari, Pisa/IT

Learning Objectives:
1. To learn about hybrid imaging tools in animal imaging/pre-clinical research.
2. To understand possible clinical applications.

A-459 C. Preclinical hybrid imaging
S. Bisdas, Tübingen/DE

Learning Objectives:
1. To become acquainted with the origins and evolution of MR/PET.
2. To be informed of the current applications.
3. To be able to grasp clinical scenarios where cardiopulmonary functional CT imaging may be helpful.

Panel discussion:
Is a single CT scan technique and protocol feasible for all the cardiothoracic problems?
**Radiographers**

**RC 1414  Towards advancing and developing the role of radiographers**

14:00

**A-464 Chairmen’s introduction**

S. Mathers, D. Tscholakoff; Aberdeen/UK; Vienna/AT

**Session Objectives:**
1. To appreciate the potential importance of advancing and developing the role of radiographers for the profession and for healthcare.
2. To become familiar with the level of activity across international societies in fostering this.
3. To understand the importance of such role developments meeting real clinical needs.

14:05

**A-465 A. The current status: a clinical perspective**

C. McLaren; London/UK

**Learning Objectives:**
1. To become familiar with the current status from the perspective of a radiographer in an advanced practice in a paediatric interventional role.
2. To understand the key factors that facilitate this advanced role, as well as the challenges faced during implementation.
3. To become familiar with the impact that this advanced role has had on patient care, interprofessional relationships and service delivery, in one institution.

14:28

**A-466 B. The importance of evidence-based practice for the future of advanced practice in radiography**

A. England; Liverpool/UK

**Learning Objectives:**
1. To become familiar with examples of evidence-based practice in the area of advanced practice and role development in radiography.
2. To understand the importance of such an evidence-based approach when considering the introduction of advanced roles in a clinical setting.
3. To gain an insight into the education and training requirements for advanced practice and role development.

14:51

**A-467 C. The view from the European level**

G. Paulo; Coimbra/PT

**Learning Objectives:**
1. To understand the influence of evidence-based practice on the future of the radiography profession in Europe.
2. To become familiar with the advantage of advanced practice and role development in radiography in health systems.
3. To understand the benefits of advanced practice and role development in radiography for the patients.

**Panel discussion:**
How to use the EFRS guidance document on role development

15:14

**14:00–15:30 Room Q**

**Paediatric**

**RC 1412  Paediatric emergencies**

Moderator: V. Donovan; Dublin/IE

14:00

**A-468 A. The acute non-traumatic neurological patient: CT or MRI?**

E. Wolfgar; Barcelona/ES

**Learning Objectives:**
1. To learn about the currently limited role of CT in the non-traumatic acute setting.
2. To become familiar with radioprotection strategies and protocols adapted to children.
3. To consolidate the role of MRI as the modality of choice for acute non-traumatic neurologically ill children, with an emphasis on newer techniques.
4. To become familiar with imaging findings and the main differential diagnosis of acute neurological conditions in children.

14:30

**A-469 B. Imaging of acute chest pain and/or distress in children**

C.E. de Lange; Oslo/NO

**Learning Objectives:**
1. To understand the role of radiographs, US, CT and MRI.
2. To become familiar with the most common conditions that cause acute chest pain and/or distress in children.
3. To appreciate the different differential diagnoses, depending on the age of the patient.
4. To understand the consequences of delaying in their diagnosis and treatment.

15:00

**A-470 C. The role of the interventional radiologist in paediatric trauma**

J.B. Karani; London/UK

**Learning Objectives:**
1. To understand the role of imaging in forensic pathology.
2. To learn how the use of a contrast medium may help the native scan to recognise vascular lesions.
3. To learn about the possibilities of MDCT in anthropological identification.

14:00–15:30 Room Z

**Special Focus Session**

**SF 14c  Advances in forensic radiology**

14:00

**A-471 Chairman’s introduction**

G. Guglielmi; Foggia/IT

**Session Objectives:**
1. To become familiar with the role of imaging in forensic pathology.
2. To understand the importance of vascular and non-vascular intervention following trauma in children.

14:23

**A-472 Imaging in forensic medicine**

M. Thali; Zurich/CH

**Learning Objectives:**
1. To learn why imaging methods are becoming essential modalities in forensic medicine.
2. To become familiar with the modalities that can be used in forensic imaging.
3. To learn what the future developments in forensic radiology and imaging will be.

14:41

**A-473 Advances in post-mortem CT angiography**

S. Mathers; Lausanne/CH

**Learning Objectives:**
1. To consolidate knowledge of the advantages and limits of post-mortem CT angiography.
2. To understand the method of multi-phase post-mortem CT angiography and the indication for its performance.
3. To become familiar with the objectives and latest achievements of the Technical Working Group of Post-mortem Angiography Methods (TWGPAM).

14:41

**A-474 Virtual anthropology and forensic identification using MDCT**

F. Pardess; Toulouse/FR

**Learning Objectives:**
1. To learn about the different paleo-pathological diagnoses and anthropological identification of bone lesions with MSCT.
2. To learn about the possibilities of MSCT for comparative identification.
3. To understand reconstructive identification and the main techniques useful for age-at-death assessment and sex determination.
A-475  Forensic MR imaging  
T.D. Ruder; Zurich/CH

Learning Objectives:
1. To learn about typical post-mortem alterations in MR imaging.
2. To become familiar with application of MR imaging in the post-mortem setting.
3. To understand the added value of post-mortem cardiac MR in cases of cardiac death.

Panel discussion:
Which imaging technique for which forensic scenario?

16:00–17:30  Room A

Interactive Teaching Session

E³ 1520  Thoracic emergencies

16:00  A-476 A. Vascular
E. Castañer; Sabadell/ES

Learning Objectives:
1. To become familiar with the main causes of thoracic vascular emergencies.
2. To understand the role of MDCT angiography in thoracic emergencies.
3. To learn about the radiological signs in vascular thoracic emergencies and its impact on the management of these patients.

16:45  A-477 B. Pulmonary
C.M. Schaefer-Prokop; Amersfoort/NL

Learning Objectives:
1. To learn about the role of imaging in severe attacks of obstructive lung disease.
2. To become familiar with direct and indirect signs of pleural disease causing respiratory failure with special emphasis on the intensive care patient.
3. To learn about imaging features that are helpful for the differential diagnosis of pulmonary consolidations causing respiratory failure.
4. To understand the interaction of comorbidity, age and extent of pulmonary disease resulting in severe respiratory failure and the role of imaging in it.

16:00–17:30  Room B

GI Tract

RC 1501  CT colonography: when the 'new' becomes 'ordinary'

16:00  A-478 Chairman’s introduction
A. Laghi; Rome/IT

16:05  A-479 A. State-of-the-art techniques in 2013
T. Mawe; Vienna/AT

Learning Objectives:
1. To become familiar with an optimised technique and how it can be optimised for specific patient groups.
2. To briefly describe basic interpretation and the role of CAD.
3. To understand the most common interpretative pitfalls and potential complications, and how they can be avoided.

16:28  A-480 B. How to set up a service
P. Letem; Rosieres/BE

Learning Objectives:
1. To appreciate the need for training prior to CTC and understand the role of training courses and double reporting.
2. To become familiar with ways of maximising service efficiency, including cost effectiveness, and how best to replace the barium enema.
3. To appreciate the differences in approach from setting up a service for older symptomatic patients to setting up colorectal cancer screening.
4. To learn a basic audit framework.

16:51  A-481 C. Interaction with gastroenterologists: friends or enemies?
A. Grassl 1, C. Hassan 2; 1Munich/DE, 2Rome/IT

Learning Objectives:
1. To understand what the gastroenterologists wants to know when referring their patients for CTC in both symptomatic and screening patients.
2. To learn how to formulate local polyp reporting guidelines and how best to integrate the service with the needs of patients.
3. To propose the most effective method for integrating endoscopic and CTC services, minimising competition and maximising cooperation.

Panel discussion:
How to create an efficient CTC team?

16:00–17:30  Room C

Urogenital Imaging

CC 1521  Paediatrics
Moderator: M. Claudon; Vandoeuvre-lès-Nancy/FR

16:00  A-482 A. Imaging strategies for children: urinary tract infection and vesico-ureteral reflux
M. Beckers; Graz/AUT

Learning Objectives:
1. To learn about the information provided by ultrasonography, MRI and nuclear medicine examinations.
2. To become familiar with the technique and indications for micturating cystourethrogram and contrast-enhanced voiding urosonography.
3. To become familiar with an imaging algorithm for diagnostic approaches, and different strategies.

16:20  A-483 B. Paediatric adrenal tumours
P.-H. Vivier; Rouen/FR

Learning Objectives:
1. To become familiar with the different adrenal tumours in paediatrics.
2. To learn how imaging can help in differentiating neuroblastoma from Wilm’s tumour.
3. To understand the value of adequate examinations for the initial workup of adrenal tumours.

16:40  A-484 C. Prenatal detection of GU diseases
F.E. Avni; Lille/FR

Learning Objectives:
1. To learn how to assess the diagnostic criteria of foetal uropathies.
2. To learn how to apply a standardised post-natal approach.
3. To understand the rationale behind a standardised approach.

17:00  A-485 D. Interactive case discussion
M. Claudon; Vandoeuvre-lès-Nancy/FR
CLICK (Clinical Lessons for Imaging Core Knowledge): Never without Arteries

CC 1518 When every step counts: imaging and management of peripheral arterial occlusive disease (PAOD)
Moderator: J.F.M. Meaney, Dublin/I.

16:00
A-486 A. Clinical considerations
M. Schillinger, Vienna/A.
Learning Objectives:
1. To become familiar with clinical diagnosis and classification of peripheral arterial occlusive disease.
2. To learn about the most important clinical differential diagnosis.
3. To learn about the importance of imaging for treatment decision-making and planning.

16:30
A-487 B. Imaging techniques and typical findings
T. Leiner, Utrecht/NL.
Learning Objectives:
1. To learn about state-of-the-art MR angiographic imaging of the peripheral arteries (including modern non-enhanced techniques).
2. To learn about state-of-the-art CT angiographic imaging of the peripheral arteries (including modern dose-saving techniques).
3. To become familiar with the appropriate selection of the right patient for the right imaging test.

17:00
A-488 C. Interactive case discussion: how to deal with the results? Typical cases, pitfalls, and what is next?
L.P. Lawler, Dublin/I.
Learning Objectives:
1. To become familiar with typical cases illustrating the role of different imaging modalities in the diagnosis and differential diagnosis of PAOD.
2. To consolidate knowledge of the selection of the appropriate imaging technique, image interpretation and image based treatment recommendation.
3. To understand the needs and principles in modern multidisciplinary management of PAOD.

Oncologic Imaging: Follow-up of Systemic and Local Therapies

CC 1519 Follow-up of thermal ablation (part II)
Moderator: P.L. Pereira, Heidelberg/DE.

16:00
A-489 A. Follow-up imaging of thermal ablative therapies for lung tumours
A.R. Gillams, London/UK.
Learning Objectives:
1. To consolidate knowledge of imaging aspect of successful ablation.
2. To become familiar with the main pitfalls of post-ablation imaging.
3. To learn about the imaging aspects of most common complications.

16:30
A-490 B. Follow-up imaging of percutaneous local treatment of bone tumours
F. Deschamps, G. Farouil, T. de Baere, Villejuif/FR.
Learning Objectives:
1. To learn about the post-ablation aspects, according to the ablation technique used.
2. To consolidate knowledge of the imaging aspects of successful ablation on various types of follow-up imaging, including CT and MRI.

17:00
A-491 C. Follow-up imaging of thermal ablative therapies for kidney tumours
D.J. Breen, Southampton/UK.
Learning Objectives:
1. To learn about the post-ablation aspects, according to ablation technique used.
2. To become familiar with the imaging aspect of successful ablation.
3. To appreciate the imaging aspect of most common complications.

State of the Art Symposium

SA 15 Imaging impingement syndromes

16:00
A-496 Chairman’s introduction
L.W.A. Dierckx, Zurich/CH.
Session Objectives:
1. To learn about the role of imaging for the diagnosis of impingement syndromes.
2. To understand what the clinician needs to know from the radiologist.
3. To learn the diagnostic value of different imaging modalities to answer the clinical questions.
A-497 – A-508

Postgraduate Educational Programme

16:00–17:30 Room F1

Special Focus Session

SF 15b Digital breast tomosynthesis

16:00

A-505 Chairman’s introduction
A. Rovira-Cañellas; Barcelona/ES

Session Objectives:
1. To understand the role of neuroradiology in the initial assessment.
2. To appreciate the role of conventional and non-conventional imaging techniques in the diagnosis and monitoring of primary and secondary traumatic lesions of the brain.
3. To learn about the prognostic value of neuroimaging.
4. To become familiar with the various types of cerebrovascular traumas and their treatment options.

16:05

A-502 New imaging techniques in the detection and quantification of brain damage
S. Sunaert; Leuven/BE

Learning Objectives:
1. To consolidate knowledge of new advanced imaging techniques.
2. To appreciate the roles of these techniques in early- and late-phase diagnosis and treatment follow-up.
3. To learn about the lesion patterns associated with favourable and unfavourable outcomes.

16:23

A-501 Acute brain trauma: CT vs MRI
M. Muto; Naples/IT

Learning Objectives:
1. To understand the role of neuroradiology in the management of brain trauma patients.
2. To understand the correlation between neuroradiological features and clinical findings.
3. To understand the importance of imaging follow-up.

16:41

A-503 Advanced imaging of brain trauma: outcome prediction
P. Robinson; Leeds/UK

Learning Objectives:
1. To understand the value of diffusion tensor imaging and MR spectroscopy in severe cases.
2. To understand the role of these techniques in early- and late-phase diagnosis and treatment follow-up.
3. To learn about the lesion patterns associated with favourable and unfavourable outcomes.

16:59

A-504 Cerebrovascular trauma: diagnosis and therapy
G. Gennaro; Padua/IT

Learning Objectives:
1. To learn about the classification of the different types of cerebrovascular trauma.
2. To become familiar with vascular emergencies requiring urgent treatment.
3. To become familiar with treatment strategies in cerebrovascular trauma.

Panel discussion:
Role of neuroimaging in traumatic brain injury in 2013

17:17

SF 15b Digital breast tomosynthesis

16:00–17:30 Room F2

Special Focus Session

SF 15b Digital breast tomosynthesis

16:00

A-505 Chairman’s introduction
G. Gennaro; Padua/IT

Session Objectives:
1. To understand the potential impact of DBT on sensitivity and specificity of breast cancer detection.
2. To become familiar with vascular emergencies requiring urgent treatment.
3. To understand if CAD could be successfully applied compensate for the time required to review DBT images.

16:05

A-506 Optimisation of image acquisition and reconstruction in DBT
M.J. Yaffe, J.G. Mainprize; Toronto, ON/CA

Learning Objectives:
1. To understand the physical parameters and reconstruction methods which determine digital breast tomosynthesis (DBT) image quality.
2. To learn about DBT clinical performance and potential clinical applications.
3. To understand if CAD could be successfully applied compensate for the time required to review DBT images.

16:28

A-507 Current role of DBT in diagnostic imaging
G. Gennaro; Padua/IT

Learning Objectives:
1. To understand the potential impact of DBT on sensitivity and specificity of breast cancer detection.
2. To appreciate limitations of DBT and its impact on image interpretation time and effort.
3. To understand if DBT is applicable to screening.

16:51

A-508 Clinical aspects of computer aided detection and diagnosis in DBT
H.-P. Chan; Ann Arbor, MI/US

Learning Objectives:
1. To understand the challenges of DBT interpretation in clinical practice.
2. To understand the potential impact of computer-aided detection on DBT.
3. To learn about CAD as a second reader to improve DBT sensitivity.
4. To appreciate CAD as a concurrent reader to improve DBT workflow.

Panel discussion:
Digital breast tomosynthesis: replacing or just supporting standard mammography?
16:00–17:30 Room G/H

Neuro

RC 1511 Epilepsy: a lack of knowledge can be dangerous
Moderator: M. A. Papathanasiou; Athens/GRC 1511 Epilepsy: a lack of knowledge can be dangerous
Moderator: M. A. Papathanasiou; Athens/G

16:00
A-509 A. Anatomy of the limbic system
ta Yousry; London/UK
Learning Objectives:
1. To learn the components of the limbic system.
2. To understand the structure of the hippocampus proper.
3. To become familiar with the imaging characteristics at 1.5T, 3T, and 9.4T.

16:30
A-510 B. Temporal lobe epilepsy
I.n. Pronin; Moscow/RU
Learning Objectives:
1. To become familiar with MR-characteristics of neoplastic and non-
neoplastic causes of temporal lobe epilepsy.
2. To learn about optimised imaging protocol.
3. To appreciate the potential impact of modern MR-imaging
techniques to improve visualisation of structural brain changes.

17:00
A-511 C. fMRI in epilepsy
N. Bargalló; Barcelona/ES
Learning Objectives:
1. To become familiar with the application and limitations of fMRI.
2. To learn technical aspects and interpretation of fMRI for
language localisation and memory testing.
3. To consolidate of advanced fMRI applications.

16:00–17:30 Room I/K

Cardiac

RC 1503 Cardiac CT and MRI in difficult patients: what to do?

16:00
A-512 Chairman’s introduction
M. Hamilton; Bristol/UK

16:05
A-513 A. Coronary CTA in patients with severe arrhythmias and high heart rate
C. Loewe; Vienna/AU
Learning Objectives:
1. To understand the criteria for optimal patient selection and preparation to achieve best results.
2. To learn about acquisition techniques in patients with arrhythmias and tachycardia.
3. To become familiar with the post-processing techniques available for optimising images quality following the scan.

16:28
A-514 B. Severe coronary calcinosis and stents: tips and tricks in image acquisition and interpretation
F. Pugliese, A. Rossi; London/UK, Trieste/IT
Learning Objectives:
1. To understand the challenge of calcification and stents when performing coronary CTA.
2. To become familiar with technical features that maximise image quality in this patient group.
3. To be aware of the accuracy of coronary CTA in stented or calcified vessels with the optimum imaging techniques.

16:51
A-515 C. Cardiac MRI: possible problems and how to avoid them
E. Mershina; Moscow/RU
Learning Objectives:
1. To learn the importance of patient selection and preparation in achieving high quality scans.
2. To understand the practical techniques available for performing a successful scan in difficult patients such as those with arrhythmia or poor breath-holding ability.
3. To learn how imaging parameters can be changed for optimal results.

Panel discussion:
When to scan and when not to? How can we make the best of what we have?

16:00–17:30 Room L/M

Physics in Radiology

RC 1513 Novel developments in CT and their impact on dose
Moderators: M. Prokop; Nijmegen/NL, V. Tsapaki; Athens/G

16:00
A-516 A. Patient dose assessment in CT
P. C. Shrimpton; Didcot/UK
Learning Objectives:
1. To become familiar with technical dose parameters in CT.
2. To understand how to assess patient dose.
3. To be informed about the role of diagnostic reference levels in CT.

16:30
A-517 B. New frontiers in CT: functional and spectral imaging
N. Pelc; Stanford, CA/US
Learning Objectives:
1. To learn about new developments in functional and spectral CT imaging.
2. To understand the impact on patient dose.

17:00
A-518 C. New image reconstruction techniques
J. Sijbers; Antwerp/BE
Learning Objectives:
1. To understand the principles of iterative reconstruction techniques in CT.
2. To learn about novel algorithms.
3. To learn about the impact on patient dose.

16:00–17:30 Room N/O

Head and Neck

RC 1508 Performing and reporting head and neck examinations: how should I do it?
Moderator: K. Surlan Popović; Ljubljana/Sl

16:00
A-519 A. Sinonasal CT scans: technique and evaluation
H.B. Eggesbø; Oslo/NO
Learning Objectives:
1. To learn how to perform a state-of-the-art CT examination of the sinuses.
2. To understand how to evaluate and what to report on CT examinations of the sinuses.

16:30
A-520 B. Temporal bone: CT and MRI
M.M. Lemmerling; Gent/BE
Learning Objectives:
1. To learn how to perform a state-of-the-art CT and MRI examination of the temporal bone.
2. To learn how to create a complete temporal bone report.
### A-521 C. CT and MRI of the neck: how to address key clinical questions

**D. Farina; Brescia/IT**

**Learning Objectives:**
1. To understand key clinical questions.
2. To learn how to do a structured reading of the CT and MRI scans of the head and neck.
3. To become familiar with reporting in order to address the needs of the clinician.

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### 16:00 – 17:30 Room P

#### Radiographers

**RC 1514 Hybrid imaging technologies**

*Moderators: C.D. Claussen; Tübingen/DE, C. Malamateniou; London/UK*

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>16:00</td>
<td>A-522 A. Recent developments</td>
</tr>
<tr>
<td>16:30</td>
<td>A-523 B. Clinical applications</td>
</tr>
<tr>
<td>17:00</td>
<td>A-524 C. Trends in radiography education</td>
</tr>
</tbody>
</table>

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### 16:00 – 17:30 Room Q

#### Paediatric

**RC 1512 Paediatric MSK radiology: what is important?**

*Moderator: M. Raissaki; Iraklion/GR*

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>16:00</td>
<td>A-525 A. Scoliosis: what the radiologist needs to know</td>
</tr>
<tr>
<td>16:30</td>
<td>A-526 B. Benign bone tumours and pseudotumours in children: the pitfalls</td>
</tr>
</tbody>
</table>

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### A-527 C. Congenital bone dysplasias

**A.C. Offiah; Sheffield/UK**

**Learning Objectives:**
1. To understand the role of the radiologist in diagnosing congenital bone dysplasias.
2. To understand how to classify bone dysplasias.
3. To become familiar with reporting radiological studies related to bone dysplasias.
08:30–10:00 Room A

Interactive Teaching Session

E³ 1620 Acute abdominal inflammatory disorders

08:30
A-528 A. Colitis and enterocolitis
D.J.M. Tolan; Leeds/UK

Learning Objectives:
1. To know how to choose the appropriate imaging modality.
2. To become familiar with the patterns of distribution and appearance in imaging.
3. To learn how to differentiate ischaemia from inflammation.

A-529 B. Liver and bile ducts
C.D. Becker; Geneva/CH

Learning Objectives:
1. To know the advantages of each imaging technique.
2. To become familiar with the findings in infrequent infections.
3. To learn how to study obstructive jaundice.

09:15

08:30–10:00 Room B

Special Focus Session

SF 16a My most beautiful mistakes in paediatric radiology

08:30
A-530 Chairman’s introduction
P. Tomà; Rome/IT

Session Objectives:
1. To become familiar with growth and development of newborns to teens.
2. To become familiar with the main pitfalls in paediatric radiology.

08:35

A-531 Abdomen
S.G.F. Robben; Maastricht/NL

Learning Objectives:
1. To become familiar with the most important differential diagnoses.
2. To learn about imaging strategies for children.
3. To understand the role, importance of, and information obtained, from ultrasonography.

A-532 CNS
B. Bernardi, T. Verdolotti; Rome/IT

Learning Objectives:
1. To understand the significance of MR findings in a developing brain.
2. To learn how to avoid misinterpretations of easily detectable MR abnormalities.
3. To become familiar with the differential diagnosis of uncommon diseases.

A-533 Musculoskeletal
K. Rosendahl; Bergen/NO

Learning Objectives:
1. To become familiar with the various controversies regarding US screening programmes for developmental dysplasia of the hip.
2. To understand the value of ultrasonography in the study of the musculoskeletal system.
3. To learn how and when to use MRI for investigations and differential diagnosis.

Panel discussion:
How have you changed or improved yourself after recognising your mistakes?

09:44

08:30–10:00 Room C

Urogenital Imaging

CC 1621 The usual, the unusual and the dangerous
Moderator: S.K. Morcos; Sheffield/UK

08:30
A-534 A. Imaging of renal trauma
V. Logager; Copenhagen/DK

Learning Objectives:
1. To learn how to recognise and describe the different types of traumatic renal injuries.
2. To learn how to correlate these image findings with clinical severity.
3. To understand treatment possibilities.

08:50
A-535 B. Postoperative anatomy and complications after GU interventions
H.C. Thoeny; Berne/CH

Learning Objectives:
1. To become familiar with expected imaging findings after (partial) nephrectomy, ileal bladder substitute and radical prostatectomy.
2. To understand common complications after surgery.
3. To learn where and how to detect tumour recurrence.

A-536 C. GU complications in patients with spinal cord damage
S. Agarwal; Wrexham/UK

Learning Objectives:
1. To understand the pathophysiology of urinary tract problems in patients with spinal cord damage.
2. To become familiar with the urinary tract complications associated with this group of patients.
3. To understand the role of different modalities and common problems during imaging.

09:30
A-537 D. Interactive case discussion
S.K. Morcos; Sheffield/UK

08:30–10:00 Room D1

CLICK (Clinical Lessons for Imaging Core Knowledge): Never without Arteries

CC 1618 The fast and the furious: vascular trauma resulting from traffic accidents
Moderator: U. Linsenmaier; Munich/DE

08:30
A-538 A. Clinical considerations
H. Hoppe; Berne/CH

Learning Objectives:
1. To learn about the frequency and importance of arterial involvement in deceleration trauma.
2. To know more about the differential diagnosis as well as the different localisations of arterial lesions.
3. To learn about prognosis, treatment and outcome after arterial involvement.

09:00
A-539 B. Imaging techniques and typical findings
H. Alkadhi; Zurich/CH

Learning Objectives:
1. To learn about the importance of selecting the appropriate imaging technique to allow for the detection of arterial involvement in trauma patients.
2. To become familiar with the typical image appearance of arterial involvement in trauma patients.
3. To learn about the most important findings and diagnoses for treatment planning.
### Oncologic Imaging: Follow-up of Systemic and Local Therapies

**CC 1619 Follow-up of local treatments of breast cancer**
Moderator: M.H. Fuchsjäger; Graz/AT

<table>
<thead>
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<th>Session</th>
<th>Title</th>
<th>Speaker</th>
<th>Location</th>
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<tbody>
<tr>
<td>08:30</td>
<td>A-541</td>
<td>A. MRI-guided HIFU therapies in the breast</td>
<td>M. Sklair-Levy; Tel Aviv/IL</td>
<td>D2</td>
</tr>
<tr>
<td>09:00</td>
<td>A-542</td>
<td>B. Pre- and post-imaging appearance of breast lesion excision system (BLES) lesions</td>
<td>S.D. Allen; Sutton/UK</td>
<td>E1</td>
</tr>
<tr>
<td>09:30</td>
<td>A-543</td>
<td>C. Common features and pitfalls in imaging the treated breast</td>
<td>J. Camps Herrero; Valencia/ES</td>
<td>E1</td>
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</tbody>
</table>

**Oncologic Imaging**

**RC 1616 Complications of cancer treatment and the detection of recurrences**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Speaker</th>
<th>Location</th>
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<tbody>
<tr>
<td>08:30</td>
<td>A-548</td>
<td>Chairman's introduction</td>
<td>M. Laniado; Dresden/DE</td>
<td>E2</td>
</tr>
<tr>
<td>08:58</td>
<td>A-549</td>
<td>A. Head and neck cancer</td>
<td>L. Oleaga Zufiría; Barcelona/ES</td>
<td>E2</td>
</tr>
<tr>
<td>09:58</td>
<td>A-550</td>
<td>B. Liver and pancreatic cancer</td>
<td>C. Catalano; Rome/IT</td>
<td>E2</td>
</tr>
<tr>
<td>09:21</td>
<td>A-551</td>
<td>C. Rectal cancer</td>
<td>L.C.O. Blomqvist; Stockholm/SE</td>
<td>E2</td>
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**GI Tract**

**RC 1601a Diagnosis and staging of esophageal cancer**

<table>
<thead>
<tr>
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<th>Speaker</th>
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<tbody>
<tr>
<td>08:30</td>
<td>A-544</td>
<td>Chairman's introduction</td>
<td>Z. Tarján; Budapest/HU</td>
<td>E2</td>
</tr>
<tr>
<td>08:35</td>
<td>A-545</td>
<td>A. Diagnosis</td>
<td>M. Krokidis; Cambridge/UK</td>
<td>E2</td>
</tr>
<tr>
<td>08:58</td>
<td>A-546</td>
<td>B. Staging</td>
<td>V. Válek; Brno/CZ</td>
<td>E2</td>
</tr>
<tr>
<td>09:44</td>
<td>Panel</td>
<td>Cross-sectional techniques: developing an integrated imaging algorithm in oesophageal cancer</td>
<td></td>
<td>E2</td>
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<tr>
<td>09:44</td>
<td>Panel</td>
<td>How to differentiate between treatment sequelae and active disease</td>
<td></td>
<td>E2</td>
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</table>
08:30–10:00 Room F1

GI Tract

RC 1601b Abdominal MRI: standard and advanced protocols in clinical settings
Moderator: M.A. Patak; Zurich/CH

08:30
A-552 A. Fistula in ano
A. Gupta; London/UK

Learning Objectives:
1. To learn optimised MRI state-of-the-art protocols to image patients with fistula in ano.
2. To understand of the role of imaging in fistula classification and staging, impact on therapeutic decision-making, assessment of activity and in treatment monitoring.
3. To describe how to provide an optimal MRI fistula report.

09:00
A-553 B. Pelvic floor disease
M. Bazot, L. Jarboui, I. Thomassin-Naggara, F. Haab, E. Darai; Paris/FR

Learning Objectives:
1. To learn the clinical indications and the optimised dynamic MR imaging protocol for investigating pelvic floor disease in patients.
2. To understand common and uncommon findings related to the posterior, middle and anterior compartments and how they impact on subsequent patient management.
3. To understand how to introduce MRI into a pelvic floor therapy and how to best integrate with conventional techniques.

09:30
A-554 C. Suspected biliary tumour
C. Matos; Brussels/BE

Learning Objectives:
1. To learn the basic MRI technique for patients with suspected biliary tumour.
2. To understand advanced imaging protocols for both structural and functional imaging of the bile ducts, and when these are indicated.
3. To understand the MR imaging findings which best differentiate benign from malignant disease, and how to produce an optimised report.

08:30–10:00 Room G/H

Neuro

RC 1611 Spine: update on postoperative imaging and minimally invasive procedures

08:30
A-555 Chairman’s introduction
J. Van Goethem; Antwerp/BE

08:35
A-556 A. Postoperative spine
L. van den Haave, J.W. Van Goethem, C. Venstrems, F. De Belder, P.M. Parizel; Antwerp/BE

Learning Objectives:
1. To become familiar with the appropriate imaging technique in the postoperative spine.
2. To learn how to differentiate between normal and abnormal postoperative findings.
3. To recognise the most common postoperative complications.

08:58
A-557 B. Indications for vertebroplasty
A. Gangi, J. Iannone, G. Tassinari, J. Erroz; Strasbourg/FR

Learning Objectives:
1. To consolidate knowledge of the actual indications for vertebral augmentation.
2. To understand the contraindications and limitations.
3. To become familiar with the algorithm of patient selection.
4. To understand the best timing for vertebral augmentation.

Panel discussion:
09:44 Minimally invasive spinal procedures: the radiologist’s future role?

08:30–10:00 Room I/K

Chest

RC 1604 Pulmonary embolism: guidelines and best practice throughout Europe

08:30
A-559 Chairman's introduction
M. Rémy-Jardin; Lille/FR

08:35
A-560 A. Pioped 1-2-3: what have we learned so far?
C. Engelke; Göttingen/DE

Learning Objectives:
1. To appreciate the results of Pioped 1-2-3 in the light of technological refinements in 2013.
2. To become familiar with the pros and cons of CT versus MR.
3. To understand the residual potential indications of scintigraphy.

08:58
A-561 B. PE in oncologic patients
B. Ghaye; Brussels/BE

Learning Objectives:
1. To learn about the increased risk of venous thromboembolism.
2. To appreciate the pros and cons of US, CT, MR and scintigraphy.
3. To learn about specific diagnostic algorithms.

Panel discussion:
09:44 Pulmonary embolism work-up in 2013

08:30–10:00 Room L/M

Special Focus Session

SF 16c Making homogeneous the reading in HCC

08:30
A-563 Chairman’s introduction
F. Bartolozzi; Pisa/IT

Session Objectives:
1. To become familiar with common and uncommon findings in HCC and with updated guidelines in HCC diagnosis and follow-up.
2. To understand how interpretation and reporting in HCC influence patient management.
3. To learn about recent developments in computer-aided reporting.
A-564 – A-574

Postgraduate Educational Programme

08:30
A-564 HCC diagnosis: how to report ‘typical’ findings
C. Ayuso; Barcelona/ES

Learning Objectives:
1. To learn about AASLD/EASL imaging criteria for non-invasive diagnosis of hepatocellular carcinoma.
2. To understand the need for standardised interpretation and reporting in HCC surveillance.
3. To learn the current terminology in HCC reporting.

08:53
A-565 How to interpret and report ‘atypical’ findings
C. Ferroni; Basel/CH

Learning Objectives:
1. To learn about common tricks and traps in interpreting atypical findings in HCC surveillance.
2. To learn about the key elements for homogeneous reading and reporting in ‘atypical’ HCC.
3. To understand the role that specific findings reported by radiologists have in determining patient management.

09:11
A-566 How to evaluate tumour response to therapies
J. Bremerich; Magdeburg/DE

Learning Objectives:
1. To understand imaging findings after HCC locoregional and systemic treatments.
2. To learn about the current guidelines for defining HCC response to treatment.
3. To learn about the key elements of homogeneous reading and reporting after HCC treatment.

09:29
A-567 Information technology: the practical impact on the management of HCC patients
I. Bargellini; Pisa/IT

Learning Objectives:
1. To understand the need for new systems to improve standardization of reading and reporting.
2. To learn about now tools and software for managing oncologic patients.
3. To understand the added value of computer technology in the management of HCC patients.

Panel discussion:
09:47
Case-based discussion: a practical demonstration of how interpretation and reporting affect patient management

08:30–10:00 Room N/O

Special Focus Session

SF 16b Head and neck cancer battle: the power of imaging studies

08:30
A-568 Chairman’s introduction
V. Vandecaveye; Leuven/BE

Session Objectives:
1. To learn how to choose the optimal imaging modality for head and neck cancer staging and detection of tumour recurrence.
2. To understand which elements are key to writing a structured radiological report in diagnosis and staging.
3. To become familiar with the imaging features of tumour relapse versus complications in the post-treatment neck.
4. To understand the clinical role of imaging in post-treatment patient management.

08:35
A-569 Building blocks for locoregional staging of head and neck tumours
F.A. Pameijer; Utrecht/NL

Learning Objectives:
1. To learn how to make a choice between CT and MRI.
2. To understand which imaging findings should be assessed to obtain a radiological TN-stage.
3. To become familiar with structured radiological reporting of head and neck tumours.

09:00
A-570 Detection of tumour recurrence in head and neck cancer: challenges and pitfalls
M. Becker; Geneva/CH

Learning Objectives:
1. To appreciate the spectrum of expected tissue alterations after therapy and their temporal relationship.
2. To understand the imaging aspects of common complications after therapy.
3. To become familiar with key imaging features of tumour recurrence.
4. To learn the potential pitfalls in post-therapeutic image interpretation and how to avoid them.

09:20
A-571 Locoregional treatment failure in head and neck cancer: causes and clinical implications
R. Maroldi, P. Nicolai; Brescia/IT

Learning Objectives:
1. To understand the most frequent causes of local and regional post-treatment relapses.
2. To become familiar with the indications and options for salvage surgery and non-surgical procedures.
3. To understand the role of imaging in decision-making concerning local and regional recurrences.

Panel discussion:
09:50
Advanced imaging in clinical practice: how does it help the patient?

08:30–10:00 Room P

Cardiac

RC 1603 How I report
Moderator: R. Vliegenthart; Groningen/NL

08:30
A-572 A. Chest x-ray in cardiac disease
M.B. Rubens; London/UK

Learning Objectives:
1. To be aware of the indications for performing a chest x-ray in patients with cardiac disease.
2. To become familiar with the most important and relevant findings for the diagnosis of cardiac disease.
3. To learn about a structured approach to reading chest x-ray in cardiac patients.

09:00
A-573 B. Coronary CTA
K. Wolf; Vienna/AT

Learning Objectives:
1. To appreciate the scope of information needed by a referring physician from a coronary CTA examination.
2. To become familiar with protocols of cardiac CT and image processing.
3. To learn a structured approach to reading cardiac CT examinations.

09:30
A-574 C. Cardiac MRI in ischaemic heart disease
J. Bremerich; Berlin/DE

Learning Objectives:
1. To know when to do cardiac MRI in ischaemic heart disease.
2. To become familiar with protocols of cardiac MRI and image processing.
3. To learn about a structured reporting approach to cardiac MRI.
Computer Applications

RC 1605  Improving workflow efficiency and quality

08:30
A-575  Chairman’s introduction
  D. Caramella, F. Piscaglia
  Session Objectives:
  1. To highlight the need for IT tools to ensure quality control.
  2. To understand how to collect data concerning radiation dose.
  3. To learn about the integration of contrast media injectors into PACS.

08:35
A-576  A. Improving quality and efficiency of computerised order entry through decision support
  F. Piscaglia, S. Marinelli, E. Terzi
  Learning Objectives:
  1. To understand the relationship of decision support tools and evidence-based medicine.
  2. To learn how decision support tools can be implemented for requesting radiological studies.
  3. To appreciate potential effects of decision support tools on workflow efficiency.

08:58
A-577  B. Improving quality and efficiency of reporting by structure and templates
  N. Dugar, Doncaster/UK
  Learning Objectives:
  1. To learn about clinical requirements for structured reports.
  2. To become familiar with the IT requirements for report templates.
  3. To appreciate the potential to generate data for evidence-based radiology.

09:21
A-578  C. Improving quality and efficiency of dose management through exchange between modalities and registries
  E. Vaño, Madrid/ES
  Learning Objectives:
  1. To learn about current European regulation requirements and standards on patient dosimetry.
  2. To become familiar with the dose reporting evolution and dose structured reporting.
  3. To appreciate the potential for dose analysis and reporting as well as future registries.

09:44
Panel discussion:
Will novel IT tools really improve quality and efficiency in daily radiological practice?

08:30–10:00  Room A

Joint Session of the ESR and EFSUMB

Advances in diagnostic ultrasound: better results through cooperation
Moderators: L.E. Derchi, Genoa/IT, F. Piscaglia, Bologna/IT

08:30
A-579  Introducing the EFSUMB: the world’s largest ultrasound society
  N. Gritzmann, Vienna/AT
  Learning Objectives:
  1. To learn about the work and responsibility of the different committees.
  2. To understand the membership basis and objectives of the EFSUMB.
  3. To learn about the benefits for ultrasound societies and individual members.
  4. To learn about the educational tools of the EFSUMB.

08:48
A-580  ESR/EFSUMB collaboration: a newly established platform for joint development of ultrasound in radiology and clinical specialties
  L.E. Derchi, Genoa/IT
  Learning Objectives:
  1. To learn about the goals of the ESR Working Group on Ultrasound.
  2. To understand the cooperative agreement between the ESR and EFSUMB.
  3. To learn about the initial results of the cooperation between the two societies.

09:06
A-581  Image fusion and intervention
  T. Lorentzen, Herlev/DK
  Learning Objectives:
  1. To understand the technical aspects of image fusion with ultrasound (US) and other imaging modalities (most frequently CT or MRI).
  2. To learn how to align two sets of data, obtained through different imaging techniques such as another US or CT scans, where the fused image follows the live US scanning.
  3. To understand how a lesion, even when invisible, can be targeted for US-guided, using CT and MRI image fusion.

09:24
A-582  The EFSUMB non-liver CEUS guidelines
  M. Claudon, Vandoeuvre-lez-Nancy/Fr
  Learning Objectives:
  1. To learn about new guidelines and clinical recommendations on the use of contrast enhanced ultrasound in non-liver applications, which were released by the EFSUMB in 2012.
  2. To learn about the process of producing the document.
  3. To learn, based on the evidence, which organs are suitable for CEUS in daily practice, and which are only suitable for research using CEUS.

09:42
A-583  The EFSUMB/WFUMB liver-CEUS guidelines
  V. N. Cassar-Pullicino, Oswestry/UK
  Learning Objectives:
  1. To learn about the current practice of contrast enhanced ultrasound (CEUS) worldwide.
  2. To learn how the CEUS international guidelines were established.
  3. To learn about the main indications for CEUS in cases of liver disease.

10:30–12:00  Room A

Interactive Teaching Session

E³ 1720b  Musculoskeletal emergencies

10:30
A-584  A. Axial skeleton
  E. Llopis, Valencia/ES
  Learning Objectives:
  1. To understand the principal indications for emergency spinal imaging.
  2. To be able to analyse the pros and cons of each imaging modality in spinal trauma: how, why, when?
  3. To learn about the US and MRI findings in infection.
  4. To become familiar with the main emergency complications following spinal surgery.

11:15
A-585  B. Peripheral skeleton
  V.N. Cassar-Pullicino, Oswestry/UK
  Learning Objectives:
  1. To learn when and how to use the different imaging modalities in acute skeletal lesions.
  2. To learn about the US and MRI findings in infection.
  3. To understand the value of MDCT in acute MSK lesions.
Interactive Teaching Session
E³ 1720a  Pitfalls in pelvic imaging
10:30
A-586  A. Pitfalls in MRI of the pelvis
E. Sala; New York, NY/US
Learning Objectives:
1. To become familiar with normal variations in MRI appearances of female pelvis resulting from physiologic conditions (e.g. different phases of menstrual cycle) and treatments (including exogenous hormone therapy, surgery and radiation) potentially mimicking disease.
2. To discuss the role of correct MR imaging plane in avoiding potential mis-classification of uterine anomalies and parametrial invasion in patients with cervical cancer.
3. To recognise certain pitfalls related to dynamic contrast-enhanced MRI and diffusion weighted MRI.

11:15
A-587  B. Pitfalls in pelvic ultrasound
K. Kinkel; Chêne-Bougeries/Geneva/CH
Learning Objectives:
1. To become familiar with anatomical variants, potentially mimicking disease.
2. To learn about common pitfalls in pelvic ultrasound.

The Beauty of Basic Knowledge:
Head and Neck
MC 24E  Temporal bone: so beautiful, yet so complicated
12:30
A-588  Temporal bone: so beautiful, yet so complicated
B. De Foer; Wilrijk-Antwerp/BE
Learning Objectives:
1. To become familiar with temporal bone anatomy.
2. To learn how to choose and tailor imaging techniques according to clinical presentation.
3. To appreciate the most common pathologies affecting the three main compartments of the temporal bone.

The Beauty of Basic Knowledge:
Musculoskeletal Imaging
MC 25E  Metabolic/endocrine disease
12:30
A-589  Metabolic/endocrine disease
J. Freyschmidt; Bremen/DE
Learning Objectives:
1. To understand the basic pathophysiology of metabolic and endocrine bone diseases.
2. To become familiar with the most typical imaging findings of metabolic and endocrine diseases.
3. To appreciate specific imaging patterns and to discuss the value of different imaging techniques.

GI Tract
RC 1901  Cross-sectional imaging of colitis
16:00
A-590  Chairman’s introduction
S.A. Taylor; London/UK

16:05
A-591  A. What protocol to use?
S. Schmidt; Lausanne/CH
Learning Objectives:
1. To become familiar with the role of colonic distension prior to imaging of suspected or known colitis.
2. To understand typical CT, MRI and US protocols.
3. To highlight the pros and cons of CT, MRI and US.

16:28
A-592  B. Differentiating between the causes of colitis
B. Gallix; Montpellier/FR
Learning Objectives:
1. To learn the most common cause of colitis through cross sectional imaging in both immune competent and immune compromised patients.
2. To become familiar with differentiating infectious, inflammatory, ischaemic and autoimmune conditions based on cross sectional imaging criteria.
3. To understand the limitations of cross sectional imaging in differentiating between its causes.

16:51
A-593  C. The role of cross-sectional imaging in colonic inflammatory bowel disease
J. Rimola; Barcelona/ES
Learning Objectives:
1. To learn the optimised examination protocols for ulcerative colitis and colonic Crohn's disease in the acute, subacute and chronic disease setting.
2. To describe criteria for the assessment of disease activity through CT, MRI and ultrasound.
3. To outline an integrated approach to the use of cross sectional imaging in colonic inflammatory bowel disease.

Panel discussion:
17:14  The role of cross-sectional imaging in the diagnosis and follow-up of colitis

Contrast Media
RC 1906  How I optimise contrast media administration
Moderator: W. Semmler; Heidelberg/DE
16:00
A-594  A. CT
P. Leander; Malmo/SE
Learning Objectives:
1. To understand the pharmacokinetics of iodinated contrast media.
2. To learn about patient, contrast medium and scanning factors associated with contrast enhancement and scan timing.
3. To become familiar with protocols for optimised contrast enhancement.

16:30
A-595  B. MRI
U.M. Bongartz; Basle/CH
Learning Objectives:
1. To understand the differences between iodinated contrast agents and gadolinium chelates and their impact on contrast medium administration.
2. To learn about injection and scanning protocols for optimised vascular and parenchymal enhancement.
3. To review the influence of tissue-specific contrast media on the injection and scanning protocols.
A-596  C. PET/CT
X. Montet; Geneva/CH

Learning Objectives:
1. To become familiar with the role of contrast-enhanced CT in PET/CT.
2. To understand the influence of CT contrast-enhancement on attenuation correction of PET images.
3. To learn about the importance of adequately timing the injection of CT and PET agents for optimal PET/CT.

16:00–17:30 Room E1

Musculoskeletal

RC 1910 Intra-articular imaging

16:00 A-597 Chairman’s introduction
A.H. Karantanas; Iraklion/GR

16:05 A-598 A. Standard MR techniques
C. Faletti; Turin/IT

Learning Objectives:
1. To become familiar with the techniques used in standard MR.
2. To learn about the strengths/weaknesses of standard MR along with diagnostic problems related to anatomical variation.

16:28 A-599 B. CT arthrography
C.W.A. Pfirrmann; Zurich/CH

Learning Objectives:
1. To become familiar with the techniques used in CT arthrography.
2. To learn about the strengths/weaknesses of CT arthrography.

16:51 A-600 C. MR arthrography
J. Kramer; Linz/AT

Learning Objectives:
1. To become familiar with the techniques used in MR arthrography.
2. To learn about the strengths/weaknesses of MR arthrography.

Panel discussion: Which imaging technique for which clinical scenario?

16:00–17:30 Room E2

Oncologic Imaging


16:00 A-601 Chairman’s introduction
C. Matos; Brussels/BE

16:05 A-602 A. Tumour biology, pathogenesis and classification
B. Wiedenmann; Berlin/DE

Learning Objectives:
1. To learn about basic aspects of GEP-NET biology, pathogenesis and classification.
2. To understand the epidemiology and current treatment options.
3. To become familiar with rational clinical management.

16:28 A-603 B. The current role of nuclear medicine techniques
P. Sacco; Siena/IT

Learning Objectives:
1. To learn about the cellular properties of GEP-NET used in molecular imaging.
2. To become familiar with the different modalities and new tracers being used.
3. To learn about the performance of the different methods available.

16:51 A-604 C. Anatomical imaging: transabdominal US, endoscopic US, MDCT and MRI. What is the most appropriate imaging approach?
V. Vilgrain, M.-P. Vullierme, P. Ruszniewski, A. Sauvanet, Clichy/FR

Learning Objectives:
1. To learn how to recognise the specific imaging features of GEP-NET.
2. To learn about the strengths and weaknesses of the different imaging modalities.
3. To understand the optimal use of the different imaging modalities in relation to tumour localisation and staging.

Panel discussion: The future of hybrid imaging

16:00–17:30 Room F1

Special Focus Session

SF 19 Tablet-computers in radiology: friend or foe?

16:00 A-605 Chairman’s introduction
E. Neri; Pisa/IT

Session Objectives:
1. To give an overview of current tablet-computer technology and its practical use in radiology.
2. To discuss the pros and cons of using tablet-computers.
3. To analyse specific and critical areas of utilisation (DICOM images reading and teleradiology).

16:05 A-606 Tablet-computers: a technical overview
J. Fernandez-Bayó; Sabadell/ES

Learning Objectives:
1. To learn about PC evolution: from desktops, to laptops and tablets.
2. To appreciate the portability of a tablet-computer.
3. To become familiar with the hardware features with a specific focus on displays and networks.

16:23 A-607 Radiological features of the tablet-computer
P. Sacco, L. Faggioni; Siena/IT, Pisa/IT

Learning Objectives:
1. To appreciate the radiological features available on a tablet-computer.
2. To become familiar with radiological atlases, databases, social networks.
3. To learn how the tablet-computer can help at a congress and prepare presentations.

16:41 A-608 Reading DICOM images on the tablet
O. Ratib; Geneva/CH

Learning Objectives:
1. To understand the DICOM readers available for tablet-computers.
2. To become familiar with the different approaches to DICOM reading (local vs remote) and the PACS/tablets integration.
3. To appreciate the pros and cons of DICOM image-reading with tablet-computers in regards to image quality and displays.

16:59 A-609 Mobile teleradiology with tablet-computers: a critical appraisal
E.R. Ranschaert; ‘s-Hertogenbosch/NL

Learning Objectives:
1. To learn about mobile teleradiology within and outside the hospital.
2. To become familiar with the potential risks of mobile teleradiology (data security, confidentiality, etc.).

Panel discussion: Are we ready and confident enough to use tablet-computers in clinical practice? How and when?

Postgraduate Educational Programme

209 Monday
16:00–17:30 Room F2

Breast

RC 1902  Breast ultrasound
Moderator: M. Müller-Schimpfle, Frankfurt a. Main/DE

16:00
A-610  A. Physics and practical aspects of high-quality hand-held and automated breast US
M. H. Fuchsjäger; Graz/AT
Learning Objectives:
1. To understand the physics of hand-held and whole breast US.
2. To become familiar with the practical technique of hand-held and whole breast US including automated screening.

16:30
A-611  B. Complicated cysts and complex-cystic lesions: differentiation and management
G. Rizzatto1, C. F. Weismann2; 1 Gorizia/IT, 2 Salzburg/AT
Learning Objectives:
1. To learn about the US appearance of complicated cysts and complex-cystic lesions.
2. To consolidate knowledge on differential diagnosis for these respective lesions.
3. To understand the diagnostic algorithm for a work-up of these lesions.

17:00
A-612  C. The use of ultrasound in the evaluation of the nipple-areolar complex
R. Salvador; Barcelona/ES
Learning Objectives:
1. To understand the normal anatomy of the nipple-areolar complex.
2. To become familiar with conditions commonly affecting the nipple-areolar complex.
3. To appreciate the value of US for diagnosis and management of these conditions.

16:00–17:30 Room G/H

Neuro

RC 1911  Multiple sclerosis: 2013 update
Moderator: E. Tali, Ankara/TR

16:00
A-613  A. Differential diagnosis of multiple T2-HI white matter lesions
A. Roda-Carrellas; Barcelona/ES
Learning Objectives:
1. To learn about recognition patterns that might be helpful in suggesting the most likely etiology of brain multifocal T2 lesions.
2. To understand the role of spinal cord imaging in the differential diagnosis.
3. To appreciate a neuroradiologic diagnostic strategy for multiple white matter lesions of unknown origin.

16:30
A-614  B. New developments in the diagnosis of multiple sclerosis
F. Roos; Amsterdam/NL
Learning Objectives:
1. To understand the 2010 revision of the McDonald criteria for MS.
2. To become aware of MRI red-flags in the diagnostic process.
3. To become familiar with new developments in pulse-sequences and field-strength.
4. To understand how to use spinal cord imaging in a diagnostic setting.

17:00
A-615  C. Imaging of MS treatment-related complications
M. M. Thurnher; Vienna/AT
Learning Objectives:
1. To become familiar with therapy options in multiple sclerosis (MS).
2. To understand therapy induced complications.
3. To understand the pathophysiology of immune reconstitution inflammatory syndrome (IRIS).
4. To become familiar with imaging findings in IRIS.

16:00–17:30 Room I/K

Chest

RC 1904  Phenotypes in obstructive airway disease: how should I image, analyse and report?
Moderator: P. A. Gevenois, Brussels/BE

16:00
A-616  A. Asthma and associated conditions
N. Sverzellati; Parma/IT
Learning Objectives:
1. To learn more about the imaging findings in COPD, including low dose and expiratory CT.
2. To become familiar with the concept of CT phenotyping: airway obstruction vs. alveolar destruction.
3. To appreciate the radiological findings of remodelling of airways and pulmonary vasculature.

16:30
A-617  B. Chronic obstructive pulmonary disease (COPD)
N. Zerzeliy; Parma/IT
Learning Objectives:
1. To learn more about the imaging findings in COPD, including low dose and expiratory CT.
2. To become familiar with the concept of CT phenotyping: airway obstruction vs. alveolar destruction.
3. To appreciate the radiological findings of remodelling of airways and pulmonary vasculature.

17:00
A-618  C. Cystic fibrosis and other bronchiectatic diseases
M. U. Puderbach; Heidelberg/DE
Learning Objectives:
1. To learn more about the imaging findings in bronchiectasis, especially at MRI.
2. To appreciate the role of imaging in primary diagnosis, surveillance and therapy monitoring.
3. To become familiar with the role of imaging in surgical planning.

16:00–17:30 Room N/O

Head and Neck

RC 1908  Temporal bone: imaging the most common symptoms and signs
Moderator: T. Beale, London/UK

16:00
A-619  A. Conductive hearing loss: what’s behind it?
A. Trojanowska; Lublin/PL
Learning Objectives:
1. To review the most common causes of conductive hearing loss.
2. To become familiar with the imaging findings in patients with conductive hearing loss.
3. To differentiate the most frequent causes of conductive hearing loss.
A-620 B. Sensorineural hearing loss: a challenge for radiologists
J. Casselman, B. De Foer, Bruges/BE; Antwerp/BE

Learning Objectives:
1. To learn which imaging techniques should be used.
2. To become familiar with the different causes of sensorineural hearing loss.
3. To recognise and differentiate the imaging findings in the most frequent causes of sensorineural hearing loss.

A-621 C. Tinnitus and vertigo: diagnostic algorithm
R.B. de Bondt; Zwolle/NL

Learning Objectives:
1. To learn the most common causes.
2. To understand imaging strategies.
3. To become familiar with typical imaging findings.

Vascular
RC 1915 Lower extremity venous insufficiency

16:00 A-622 Chairman’s introduction
D.J. West; Stoke-on-Trent/UK

16:05 A-623 A. Venous anatomy and ultrasound
H. Moschouris; Piraeus/GR

Learning Objectives:
1. To become familiar with normal venous anatomy the indications for imaging and the US techniques.
2. To learn about the typical and atypical appearances of venous pathology.
3. To understand the potential pitfalls and limitations of US.

16:28 A-624 B. Rare venous diseases of the lower extremities
M. Greiner, P. Lemasle, A. Bisdorff-Bresson; Neuilly sur Seine/FR, Paris/FR

Learning Objectives:
1. To become familiar with anatomic variants.
2. To learn about anatomy with specific congenital disorders, such as persistent sciatic vein Klippel-Trenaunay-Weber syndrome.
3. To become familiar with differential diagnosis and pitfalls in the diagnosis of the above conditions.

16:51 A-625 C. CT venography and MR venography
G. O’Sullivan, D.G. Lohan; Galway/IE

Learning Objectives:
1. To learn about its indications and pros and cons compared to US.
2. To become familiar with imaging parameters, contrast media protocols and flow dependent and flow independent techniques.
3. To become familiar with pitfalls and artefacts that affect correct evaluation of imaging findings after endovascular treatments.

Panel discussion:
Which imaging modality is best for planning endovascular management?

Paediatric
RC 1912 Normal variants in paediatric imaging: not to be confused with disease
Moderator: Ø.E. Olsen; London/UK

16:00 A-626 A. Brain
A. Rossi; Genoa/IT

Learning Objectives:
1. To learn about normal variants in the neonatal and child’s brain.
2. To understand the typical imaging characteristics of normal variants that should suffice for correct interpretation.
3. To become familiar with the differentiation between normal variants and disease.

16:30 A-627 B. Chest and abdomen
S.G.F. Robben; Maastricht/NL

Learning Objectives:
1. To learn about normal variants in the neonatal and paediatric chest and abdomen.
2. To familiarise oneself with the imaging appearances of common normal variants.
3. To understand how to differentiate between normal variants and disease.

17:00 A-628 C. Musculoskeletal
F. Saez; Bilbao/ES

Learning Objectives:
1. To learn about normal variants in the neonatal and paediatric musculoskeletal system.
2. To familiarise oneself with the imaging appearances of common normal variants.
3. To understand how to differentiate between normal variants and disease.
4. To learn how to integrate age, location and clinical history with the radiological features before establishing a diagnosis.
Scientific Sessions

Session numbers are prefixed by SS

Presentation numbers are prefixed by the letter B
10:30–12:00 Room B

Cardiac

SS 103 CT and MRI in preoperative and postoperative evaluation

Moderators: G.A. Mombach; Gessens/DE, R. Sanz-Requena; Valencia/ES

10:30
B-0001 Multiparametric functional MRI for postoperative follow-up in patients with the ROSS-procedure: comparison of the aortic root replacement versus the subcoronary implantation technique
C. Ketter1, U. Baer1, J.P. Sommer2, R. Leyn3, H. Hostler4, D. Hahn5, M.J. Beer6; 1Würzburg/DE, 2Graz/AT

10:39
B-0002 Flow pattern evaluation of apico-aortic conduit (CORREX) in high-risk patients with severe aortic stenosis: a cardiac magnetic resonance (MR) investigation
C. Marchesi6, A.R. Cotroneo6, A. Tartaro6, E. Di Gianfrancesco6, C. Canosa6, M. Foschi7, B. Mannari8, G. Di Giannacca8, 6Chieti/IT, 7Utrecht/NL

10:48
B-0003 Pre- and postinterventional evaluation of cardiac function in patients suffering from mitral regurgitation using cardiac MRI
P. Krumm1, C.S. Ziem1, T.H. Wurster1, C. Bretschneider1, S. Man Apollo, B. Klumpp1, A. May1, C.D. Gausium1, U. Kramer1, Tubingen/DE

10:57
B-0004 Pre- and post-interventional analysis of myocardial strain in patients undergoing mitral valve clipping using cardiac MRI
P. Krumm1, C.S. Ziem1, T.H. Wurster1, A. Seeger1, S. Man Apollo, B. Klumpp1, C.D. Gausium1, A. May1, U. Kramer1, Tubingen/DE

11:06
B-0005 Pressure overloaded right ventricles: importance of trabeculae in evaluation of RV function by CMR
M.M.P. Driessen1, V.M. Baag2, H.G. Frelijm3, F.J. Meh1, P.T. Willems1, 1Nieuwegein/NL, 2Groningen/NL, 3Würzburg/DE

11:15
B-0006 Opacification ratios to detect changes in coronary flow by computed tomography angiography – comparison between pre- and post-stented lesions
P.B. Buyt1, R.J. Cerci1, P. Lemos1, C.E. Rochitte2, I. Gottlieb3, R.T. George1; 1Rio de Janeiro/BR, 2Rio de Janeiro/BR, 3Munich/DE

11:24
B-0007 Additional value of cardiac computed tomography to assess prosthetic valvular dysfunctions
A.A. Elamiro1, Y. Hrynchyshyn1, A. Samadi1, L. Ferri2, G. Ashrafpoor2, A. Redheul1, L. Mazzon3, E. Moussiaux2, B. DiBildoli3, Paris/FR

11:33
B-0008 Cardiac computed tomography angiography results in diagnostic and therapeutic change in prosthetic heart valve endocarditis
J. Habets1, A. Lam2, T. Wans1, I.A. van Herwerden1, W.P.T.M. Mal1, R.B.A. van den Brink2, B.A.J.M. Baggen1, S.P. Chamuleau1, R.P.J. Budde1; 1Nieuwegein/NL, 2Groningen/NL

11:42
B-0009 Anatomical variance of coronary venous system in dual source computed tomography
M. Kogelrud1, M. Kunkelová2, J. Lelakowska1, M. Krojd3, B. Lackiowicz3, M. Urbanczyk4; 1Krakow/PL

11:51
B-0010 Feasibility of MRI in patients with implanted subcutaneous loop recorder type REVEAL XT®: data from the surprise study
L. Christensen1, A. Christensen1, H. Christensen2, Copenhagen/DK

10:30–12:00 Room C

Neuro

SS 111 From structure to function

Moderators: S.J. Bakke; Oslo/NO, B. Erti-Wagner, Munich/DE

10:30
B-0011 Regional cortical thickness is associated with neurocognitive profile in progressive myoclonus epilepsies type 1 (EPM1, Unverricht-Lundborg disease)
S. Supratak1, E. Niskanen1, M. Akih1, P. Koskenkoria1, M. Kuisinen1, R. Kalviainen1, R. Vanninen1; 1Kuopio/FI, 2Vaasa/FI

10:39
B-0012 Language impairment and reduced structural connectivity in Rolandic epilepsy
R. Besse1, J. Jansen1, W.H. Bakker2, Maastricht/NL

10:48
B-0013 Relative contributory role of Interictal/Ictal SPECT, interictal PET, MR spectroscopy and T2 relaxometry in localisation of seizure focus in temporal lobe epilepsies: a metaanalysis and systematic review
V. Nasreddine1, S.X. Pir1, I. Ahmad1, A.S. Khalil2, New Delhi/IN, Chennai/IN

10:57
B-0014 Subtle changes in normal appearing white matter precede development of white matter lesions
B.F.J. Verhaaren1, M. de Groot1, R. de Boer1, S. Klein1, A. Hofman1, A. van der Lugt2, M.A. Ikram1, W.J. Niessen1, M.W. Verboom1, Rotterdam/NL

11:06
B-0015 Retrograde degeneration of optic nerve and visual pathway in open angle glaucoma: a morphologic evaluation using 3T MRI
S. Kukreja1, A. Rahman1, R. Hanmi2, N. Mohd Raml1, N. Mohd Raml1; Ajanta Europe/IN

11:15
B-0016 High blood pressure and cerebral white matter lesion progression in the general population
B.F.J. Verhaaren1, M.W. Verboom1, R. de Boer1, A. Hofman1, W.J. Niessen1, A. van der Lugt2, M.A. Ikram1, Rotterdam/NL

11:24
B-0017 MRI texture analysis in Unverricht-Lundborg disease reveals more complex and heterogeneous textural appearance in thalamus, putamen and amygdala than in controls
K.A. Holli1, S. Supratak1, E. Niskanen1, P. Dastidar1, H. Eiskela1, R. Vanninen1; 1Tampere/FI, 2Kuopio/FI, 3Vaasa/FI

11:33
B-0018 Structural MRI-assisted diagnosis of major depressive disorder using surface-based volumetric parameter classification approach
L. Zou1, S. Lu2, X. Huang2, J. Zhang2, X. Yang2, Q. Yue1, L. Zou1, Q. Gong2, Chengdu/CHN

11:42
B-0019 Resting-state networks, and peculiarities of the brain metabolism in patients with Parkinson's disease (PD) and different level of cognitive impairment (CI): fMRI and ^1H MRS study
Z.Z. Rozhkova1, O.M. Omelchenko1; 1Kiev/UA
B-0020  Relationship among fractional anisotropy (FA) values, EEG activity and cognitive status in mild cognitive impairment (MCI) and Alzheimer’s disease (AD) patients
P. Ploeg, G. Gurici, F. Scarascia, Y. Errante, A. Girona, C. Mallo, F. Vermeri, B. Beomonte Zobel, C. Quattrrochi; Rome/IT

10:30–12:00  Room D1

Interventional Radiology

SS 109  Chemoembolisation and radioembolisation of liver tumours
Moderators: A. Denys; Lausanne/CH; P.M. Paprottka; Munich/DE

10:30  Repeated transarterial chemoembolisation in the treatment of liver metastases of colorectal cancer: local tumour control and survival data

10:39  Holmium-166 radioembolisation: results of a phase 1, dose escalation study in patients with unresectable, chemorefractory liver metastases – the HEPAR trial

10:48  Repetitive transarterial chemoembolisation as a palliative treatment option for liver metastases from cutaneous malignant melanoma: indications, outcomes and role in patient’s management

10:57  Experimental study on transarterial administration of survivin siRNA combined with transarterial chemoembolization in rats with hepatocellular carcinoma (HCC)

11:06  Role of transarterial chemoembolization as bridging strategy in T2 HCC patients on the waiting list
E. Roux; T. Gangulin, P. Turrini, A. Cicorelli, R. Coni, L. Bartolozzi, Pisa/IT

11:15  Semi-automated volumetric tumour segmentation for hepatocellular carcinoma: comparison between C-arm cone-beam computed tomography and MRI
V. Tacher; M. Lin, M. Chao, L. Gjesteby, N. Bhagat; Baltimore, MD/US

11:24  Validation of a computed-tomography-based risk model for the prediction of cardiovascular disease in a lung cancer screening setting
P.M. Step, P.A. de Jong, W.P.T.M. Mai, Y. van der Graaf; Utrecht/NL

11:33  Transcatheter arterial chemoembolisation of hepatocellular carcinoma in transplant patients: smaller bead diameter and hypervascularity lead to higher tumour necrosis
M. Handy, S. Arminelli, C. Waid, C. Molepad, H. Ahari; Burlington, MA/US

11:42  Initial RECIST tumour reduction as a predictive parameter for transarterial chemoembolisation treatment success in patients with hepatocellular carcinoma

11:51  Primary lung cancer treated using radiofrequency ablation: two-year outcome data
J. Beezen, N. Wickinger, V. Arakin, S. Kaul, P. De Gal; London/UK
SS 110 Shoulder and hand

10:30-12:00 Room E1

Intraprocedural parenchymal blood volume measurement using repetitive C-arm CT in patient with hepatocellular carcinoma and breast cancer during TACE: therapy response and evaluation

Study on the effect of chemoembolization combined with microwave ablation for the treatment of hepatocellular carcinoma in rats

B-0040

SS 101a Acute bowel diseases: challenges and solutions

10:30-12:00 Room E2

GI Tract

SS 101a Acute bowel diseases: challenges and solutions

10:30

The emperor’s new clothes? An evaluation of the accuracy of transabdominal ultrasound in diagnosing acute appendicitis
P. Yoong1, C.A. Johnson2, S. Fernando3, J.W. Graham4, King’s Lynn/London/UK

10:39

Added value of ultrasound re-evaluation for patients with equivocal CT findings of acute appendicitis: a preliminary study
J. Kim, H. Kim, J. Yeon, B. Suh, K. Kim, Y. Ha, S. Paik, Sungnam-si, Gyeonggi-do/Korea

10:48

Reduced Z-axis coverage at multidetector-row CT to decrease radiation dose and maintain diagnostic accuracy in adults suspected of acute appendicitis
N. Benaïm1, C. Winant2, P. Tack3, P. Gevenois1, V. de Maertelaer1, C. Keyzer1, Brussels/BE, Mons/BE, Audouin/BE

10:57

The effectiveness of multidetector computed tomography in patients that underwent immediate intestinal resection due to acute abdominal pain
M. Ino1, F. Özkün, S. Bozkurt, M. Yüksel, O. Kekeler, Kahramanmaraş/TR

10:06

In the evaluation of patients with obscure gastrointestinal bleed, does MDCT angiography have a role?
C.B. Kulkarni1, S. Srinivasan2, K. Srinivasan, Kochi/India

11:01

Comparison of three-dimensional indirect isotropic MR arthrography and conventional MR arthrography for the diagnosis of rotator cuff tears
J. Lee1, Y. Yeon1, S. Ji, Seoul/Korea

11:51

Diagnosis of acute arterial mesenteric ischaemia with and without reperfusion: CT features useful for diagnosis and their prognostic value
M.A. Mazzei4, D. Berritto2, P. Mercuro1, F.G. Mazzei1, L. Volterrani1, Sienna/Italy

11:24

Non-occlusive mesenteric ischaemia (NOMI) with and without reperfusion: CT features useful for diagnosis and their prognostic value
M.A. Mazzei4, D. Berritto2, P. Mercuro1, F.G. Mazzei1, L. Volterrani1, Sienna/Italy

11:33

Diagnosis of acute arterial mesenteric ischaemia with and without reperfusion using 7T-MRI in an animal model
D. Berritto1, F. Iacobellis1, M.P. Belfiore1, M.A. Mazzei2, L. Saba2, R. Di Mizio3, S. Cappabianca1, A. Rotondo1, R. Grassi1, Naples/Italy, Sienna/Italy, Cagliari/Italy

11:42

B-0049

Safety of dorsal wrist arthroscopy portals: a magnetic resonance study
R. Caiazzo, R. Del Vescovo, F. Guerrieri, R.F. Grassi, B. Beomonte Zobell, Rome/Italy
11:42  B-0060 The potential benefit of abdominal CT to help differentiate between strains of clostridium difficile

10:30–12:00  Room F1

Oncologic Imaging

SS 116  Perfusion CT and MRI: ready for clinical practice
Moderators: S. Delorne; Heidelberg/DE, F.A. Gallagher; Cambridge/UK

10:30  B-0061 Functional MRI changes in follow-up after external beam radiation therapy of the prostate
A.M. Weidner; Mannheim/DE

10:39  B-0062 Acute changes in rectal cancer perfusion CT parameters during short-course radiotherapy correlate with radiological response to therapy
J.M. Franklin, E.J. Hill, T. Pwint, F.V. Gleeson, R.A. Sharma, E.M. Anderson; Oxford/UK

10:48  B-0063 CT perfusion for evaluation of early treatment response of liver metastases after 90Y-radioembolisation
C.S. Reiner, F. Morsbach, B.-R. Sah, N. Schäfer, H. Alkadhi; Zurich/CH

10:57  B-0064 First-pass perfusion CT on 256-detector row CT in the quantitative assessment of perfusion map for solid malignant neoplastic liver lesions: preliminary results
O. Minutolo, D. Ippolito, A.C. Cadonici, P.A. Bonaffini, C.R.G.L. Talei Franzesi, S. Sironi; Monza/IT

11:06  B-0065 CT perfusion imaging in stage II-III non-small cell lung cancer patients undergoing chemo-radiotherapy-evaluation of metabolic tumour activity
M. Das, B. Reymen, P. Lambin, H. Sharifi, J.E. Wildberger, D. De Ruysscher, W. van Elmpt; Maastricht/NL

11:15  B-0066 Imaging of antivascular effects of multikinase inhibitors (MKI) in patients with metastatic renal cell cancer (mRCC) using dynamic contrast-enhanced CT (DCE-CT, perfusion CT): a pilot study
A. Sterzik, M. Staehler, J. Casuscelli, M. Karpitschka, F. Schwarz, M.F. Reiser, K. Nikolaou, C. Cyran; Munich/DE

11:24  B-0067 Early vs late recurrent glioblastomas: added value of T1-weighted perfusion MR imaging compared with T2-weighted perfusion MR imaging
S.J. Kim, H.S. Kim, S.J. Kim, E.G. Cho; Seoul/KR

11:33  B-0068 Monitoring the antivascular effects of a novel multimodal therapy with dynamic contrast-enhanced MRI (DCE-MRI) in an experimental human squamous cell carcinoma model
A. Merkin, P. Paprotka, P. Zeniglu, S. Rodpluak, E. Baloch, M. Moser, M.F. Reiser, K. Nikolaou, C. Cynar; Munich/DE

11:42  B-0069 Fractional 3D quantification of early contrast-enhancing tumour fractions on dynamic MRI acquisitions in soft tissue sarcoma: prospective comparison with partial tissue-stained pathological tumour viability estimates
A.K. Singh; W. Cai, A. Imanzadeh, S. Sari, G. Harris; Boston, MA/US

11:51  B-0070 A perfusion CT-derived patient-specific arterial input function for pharmacokinetic modelling of dynamic contrast-enhanced MRI
J.M. Franklin, M. Enescu, R.A. Sharma, F.V. Gleeson, E.M. Anderson; Oxford/UK

10:30–12:00  Room F2

Breast

SS 102  Breast MRI: improving accuracy and tissue characterisation
Moderators: R. Schulz-Wendtland; Erlangen/DE, M. Telesca, Rome/IT

10:30  B-0071 BI-RADS®-adapted combined contrast-enhanced magnetic resonance and diffusion-weighted imaging reading for multiparametric imaging of breast lesions at 3T improves diagnostic accuracy
K. Pinker-Domenig, H. Bickel, T.H. Helbich, S. Gruber, S. Trautznig, W. Bognher; Vienna/AT

10:39  B-0072 The additional value of expert reading of 3 Tesla breast MRI in patients with microcalcifications on mammography
L.D. Merckel1, H.M. Verkooijen1, N.H.G.M. Peters1, R.M. Mann2, W.B. Veldhuis1, K.M. Blänner1, T. van Daelen1, P.H.M. Peeters1, M.A.J. van den Bosch1, T. van Dalen1, P.H.M. Peeters1, M.A.J. van den Bosch1, T. van Dalen1, P.H.M. Peeters1, M.A.J. van den Bosch1, T. van Dalen1, P.H.M. Peeters1, M.A.J. van den Bosch1

10:48  B-0073 Which threshold level is appropriate for analysis of the computer-aided detection system of breast MRI? Effect of pathologic tumour characteristics and biological markers
S. Song1, K.-W. Hwang2, K. Cho3; 1Ansan/KR, 2Incheon/KR, 3Seoul/KR

10:57  B-0074 The additional value of diffusion-weighted imaging (DWI) in MR-mammography: should we still look at curves?
P.A.T. Baltzer1, M. Dietzel2, J.L. Halder3, W.A. Kaiser3; 1Vienna/AT, 2Erlangen/DE, 3Jena/DE

11:06  B-0075 Apparent diffusion coefficient (ADC) measurements of breast lesions: most suspect area versus complete lesion assessment
P.A.T. Baltzer1, M. Dietzel2, J.L. Halder3, W.A. Kaiser3; 1Vienna/AT, 2Erlangen/DE, 3Jena/DE

11:15  B-0076 Combined contrast-enhanced MRI (CE-MRI) and 3D multivoxel proton magnetic resonance spectroscopy (3D-1H-MRSI) at 3 Tesla enables an improved characterization of breast tumours
K. Pinker-Domenig, S. Gruber, W. Bognher, B. Brück, H. Bickel, P.A.T. Baltzer, T. Helbich; Vienna/AT
SS 107 Prostate imaging

Reliability of the PI-RADS scoring system for functional prostate MRI
M. Quentin, L. Schimmoller, C. Anzovin, R. Rabenalt, R. Larangan, G. Antoch, P. Albers, O. Blondin, Dusseldorf/DE

Preoperative multiparametric magnetic resonance imaging (mp-MRI) reduces positive surgical margins after robotic-assisted laparoscopic prostatectomy (RALP): experience in 136 patients

The cost-effectiveness of MRI and MR-guided biopsy versus TRUS-guided biopsy in the diagnosis of prostate cancer
S. Ciremen, M. de Bois, J.O. Barentsz, J.A. Witjes, M.M. Rovers, Amsterdam/NL, 2

Quantitative shear wave elastography: detection and characterisation of prostate cancer on 105 patients

3T multi-parametric ultrahigh b values (b 2000) MR imaging for detection and localisation of peripheral and transition zone prostate cancer
O. Morandi, M. Nezio, S. Altobelli, M. Antonioli, C. Capuani, G. Simonetti, Rimini/IT

Analysis of the dependence on b-values of DWI signal model outcomes in peripheral healthy and cancerous prostate tissues
S. Lucante, L.R. Mazzoni, S. Chiti, S. Busoni, C. Gori, I. Menchi, Florence/IT

Comparison of diffusional kurtosis imaging and mono-exponential DWI model in distinguishing healthy from cancerous peripheral prostate tissues
S. Lucante, L.R. Mazzoni, S. Chiti, S. Busoni, C. Gori, I. Menchi, Florence/IT

SS 101b Liver fibrosis and cirrhosis: elastography and biomarkers

Estimation of reference values for liver elasticity in biopsy-proven normal liver using Supersonic Shear Wave imaging: measurement reliability and effect of steatosis
C. Sun, S. Kim, K. Kim, Seoul/AR

Accuracy of a new real-time shear wave elastography technique in the assessment of significant liver fibrosis: preliminary results
G. Fornaro, L. Tinelli, B. Dal Bello, F. Lussini, M. Zichetti, C. Flice, Pavia/IT

Evaluation of shear wave elastography for liver fibrosis quantification

Evaluation of shear wave elastography to monitor development of fibrosis after liver transplantation
O. Kolokythas, R. Bhattacharya, I.W. Liou, A. Kame, P. Bhargava, H.M. Mitsumori, C. Cuevas, M.F. Bruce, Seattle, WA/US, 2

The efficacy of Gadoxetate Disodium-enhanced magnetic resonance (MR) imaging in staging liver fibrosis
O.S. Fauer, C. Balasso, J. Bartali-Huber, J. Stu, R. Badea, A. Ba-Ssalamah, 'Og-Knapo/RO, Vienna/AUS

Differential portal venous flow response to terlipressin in normal and cirrhotic rats: non-invasive assessment using phase-contrast MRI

Correlation between 1H-MR spectroscopy and haematochemical evaluation (PSA) in patients undergoing radiation therapy for prostate cancer
F. Barogetti, V. Paniello, A. Pace, V. Forte, V. Forte, V. Tomoboli, C. Catalano, Rome/IT
**Physics in Radiology**

**SS 113**  Multi modality imaging and MR safety

Moderators: O. Cria-Bjelac, Belgrade/RS, D. Speck, Magdeburg/DE

**10:30 – 12:00 Room L/M**

**B-0100**  Absolute quantification of phosphorus compounds in the liver on a clinical 3T scanner

A. Sauer1, R. Livingstone, S. Kahl, B. Nowotny, B. Klueppelholz1, G. Gran1, J. Burke1, J.-H. Hwang, M. Roden1, 1Dusseldorf/DE, 2Veiljson/W, Hamburg/DE

**B-0101**  MR tumour perfusion measurements: dual echo versus multi-echo approach

V. Heitschold, M. Rebisch, A. Abramyan, M. Lianido, N. Albolmaidi, Dresden/DE

**B-0102**  PET/MR imaging of the pelvis in the presence of endoprostheses: reducing image artefacts and increasing accuracy through inpainting

C.N. Ladefoged, F. Andersen, S. Keller, J. Löfgren, A.E. Hansen, S. Holm2, L. Hojgaard, T. Beyer1, Copenhagen/DK

**B-0103**  Combined PET/MR imaging: the effect of ignoring bone during MR-based attenuation correction in oncology imaging

J. Saa, J. Lohgren, R. Sansar, M. Aznar, C. Ladefoged, F. Andersen, R. Larsen1, T. Beyer1, Copenhagen/DK

**B-0104**  Assessment of the performance of TOF-PET and PET reconstructions on edge definition of cold regions in the presence of solitary hot spots and low count-rate studies

Y. Boucharae1, M. Macoomi, M. Newell1, London/UK, Portsmouth/UK

**B-0105**  The incidence of biological effects from 3.0 Tesla (T) MRI compared to 1.5 T: an observational study in 911 consecutive outpatients

P. Althans4, P. Bertrand1, L. Barantin, M.A. Lauvin, X. Cazals, F. Domengie1, Y. Bouchareb1, M. Masoomi2, M. Newell1, 1Tours/FR, 2Le Kremlin-Bicêtre/FR, 3Paris/FR

**B-0106**  Static magnetic fields in 1.5 and 3 T MR scanners do not influence perception of pain and touch compared with placebo exposition

A. Postema1, K. Kamin, R. Ruscheweyh, R. Laubender, M.F. Reiser, A. Straube, B. Ertl-Wagner, Munich/DE

**B-0107**  Safety and efficacy of low-field magnetic resonance imaging in patients with cardiac rhythm management devices

C. Schuknecht, M. Lee, Vienna/AT

**10:30 – 12:00 Room N/O**

**Vascular**

**SS 115**  Carotid plaque evaluation

Moderators: A. Aschauer, Graz/AT, D. Filippadis, Athens/GR

**10:30**

**B-0111**  Arterial stiffness is associated with carotid intraplaque haemorrhage in the general population: the Rotterdam study


**10:39**

**B-0112**  Evaluation of carotid atherosclerotic plaque with lab-based X-ray phase-contrast imaging

H. Hetterich1, S. Fill, M. Willner1, F. Bamberger1, J. Herzen1, A. Hipp1, M.F. Reiser1, F. Pfeffer1, T. Saam1, Marseille/FR, Munich/DE, Garching/DE

**10:48**

**B-0113**  Meta-analysis and systematic review of the predictive value of carotid plaque haemorrhage by magnetic resonance imaging on cerebrovascular events

T. Saam1, H. Hetterich1, H. Hoffmann1, C. Yuan1, M. Treffel1, M. Dichgans1, H. Poppert1, M.F. Reiser1, F. Bamberger1, Munich/DE, Neuenberg/DE, Seattle/WA/US

**10:57**

**B-0114**  Genetic loci for coronary calcification and serum lipids relate to aortic and carotid calcification


**11:06**

**B-0115**  Is carotid intima-media (IMT) and extra media thickness (EMT) a surrogate marker of early atherosclerosis in patients with inflammatory bowel disease?

A. Goegebeur, E. Astrinakis, P. Zezos, N. Courcoutsakis, A. Mpampali, I. Karatzoglou, G. Kouklakis, P. Zezos, MAAU/GR

**11:15**

**B-0116**  Assessment of microvasculature in atherosclerotic plaque with dynamic contrast-enhanced-MRI: model comparison, reproducibility and validation with histology

M.F. Reiser1, M.J. Kooi1, R.H.M. van Hoof1, J.C. Stammers1, S. Heeneman1, M.J.A.P. Daemen2, J.E. Wildenberg1, R.K. Weers1, W.H. Backes1, Maastricht/NL, Amsterdam/NL

**11:24**

**B-0117**  Effect of expansive arterial remodelling on clinical presentation and plaque composition: an in vivo MRI study of the carotid arteries

A. Heido, M. Buchholz1, A. Rominger1, C. Yuan1, M.F. Reiser1, K. Nikolau1, M. Dichgans1, A. Karpinska1, T. Saam1, Munich/DE, Seattle/WA/US
10:30–12:00 Room P

Emergency Radiology

SS 117 An update on emergency thoraco-abdominal imaging

Moderators: B. Feraagali, Chieti/IT, A. Huete, Santiago/CL

10:30 B-0121 Emergency CT: what is missed at first reading?
A. Platen, G. van den Berg, T. Verheij, M. J. van der Tweel, A. Haak, Ahlen/DE

10:39 B-0122 Traumatic aortic injury: what is changing?

10:48 B-0123 Comparison between dedicated coronary CT angiogram and triple rule out using 320 multislice CT in cases of acute chest pain
V. Geszke, R. Harris, N. Awadallah, London/UK

10:57 B-0124 Can the presence of active or recent bleeding in CT angio of acute lower intestinal bleeding be predicted?

11:06 B-0125 Accuracy of the AAST organ injury scale as a CT imaging checklist for traumatic liver and spleen injuries

11:15 B-0126 Comparison of efficacy and safety between distal embolization and augmented embolization techniques for treating blunt splenic injuries with active haemorrhage

11:24 B-0127 Diagnostic performance of MDCT in the evaluation of bowel obstruction: can the radiologist’s experience make a difference?
A. Fero, R. Basisco, N. Givitalereale, A. Lella, V. Camarita, A. Cotroneo, Chieti/IT

11:33 B-0128 Determination of the vascular input function using magnitude or phase-based MRI: influence on dynamic contrast-enhanced MRI model parameters in carotid plaques

11:42 B-0129 Accuracy of ultrasonographic diagnosis of acute appendicitis in pregnant women
N. Kehlhaasvand, A.-R. Zinna, N. Reindorp, A. Levit-Kantor, Y. Glick, A. Nachtaal, Maastricht/NL

10:30–12:00 Room Q

Radiographers

SS 114 Importance of education in practice

Moderators: R. Ribeiro, Lisbon/PT, T. Roding, Maastricht/NL

10:30 B-0131 Risk management in radiology: applying failure mode effects and criticality analysis in computer tomography
M. Antrinotti, C. Masi, N. Vecchiareli, Torino/IT

10:39 B-0132 How important is the experience in breast imaging for radiographers performing breast-MRI?
P. Clauer, V. Londero, C. Molinari, R. Grometti, S. Da Dalt, C. Zuan, M. Bazzocchi, Udine/IT

10:48 B-0133 Radiography authorship: a European and international review
B. Sneddy, Wakefield/UK

10:57 B-0134 The influence of clinical placement setting on academic achievement within an undergraduate diagnostic radiography programme
E. Lewis, M. Hardy, Bradford/UK

11:06 B-0135 Use of radiation in operating theatres in Finland
P. Heikkilä, A. Heikkinen, M. Pirkola, R. Karkkainen, M. Pirinen, M. Arminen, Oulu/FI, Helsinki/FI

11:15 B-0136 Information-seeking behaviour of radiographers

11:24 B-0137 Dose reduction in computer tomography, the effects of technologist training on the number of extra anatomic images

11:33 B-0138 Evidence-based practice in radiology

11:42 B-0139 Radiographers quality assurance work: resistance and cooperation
R. Ribeiro, J. Andersen, A.E. Haakull, Oslo/NO
11:51  
B-0140  Radiographers’ knowledge about adverse reactions to iodinated contrast media  
A. Santos, L. Capitolina, I. Silva, A. Saravoa, Coimbra/PT

10:30–12:00 Room Z

Computer Applications

SS 105  IT infrastructure, learning support and teleradiology  
Moderators: B. Gibaud, Rennes/FR, A. Simisker, Tartu/EE

10:30  
B-0141  Development of the ViSion ontology  
D. U. Peeters, U. Salem1, C. Popovic2, L. Jara1, C. Duran1, A. Pistici, I. Aghenieti2, M. Jurca1, R. Rosu1, Munich, TX/US, Chapel Hill/NC, NC/US, Beijing/China

10:39  
B-0142  IT infrastructure to support secondary use of routinely acquired clinical imaging data for research  

10:48  
B-0143  Interactive methods improve radiology long-term learning  

10:57  
B-0144  The radiology events register (RaER): incident reporting in radiology  

10:06  
B-0145  The Liver Imaging Atlas: an interactive multimodality web-based reference and educational resource of liver imaging  

11:15  
B-0146  Evaluation of teleradiology and telemedicine regarding financial and personnel benefit for regions with low population density  
M.C. Spoon, H. Hosten, Greyfswald/DE

11:24  
B-0147  Fast search for radiology cases in hospital systems via content-based image retrieval  
G. Lun, R. Donner1, M. Holzer, D. Markoris, H. Mueller, E. Birngruber1, Vienna/AT, Seem/AT

11:33  
B-0148  Internet-based surveys among referring in-hospital clinicians and radiologists: a useful tool to evaluate report quality and interdisciplinary co-operation  
C. Neumann, O. Khalifa, D. Tscholakoff, G. Mostbeck, Vienna/AT

11:42  
B-0149  Cross regional diagnostic radiology network for preoperative assessment of colorectal cancer: preliminary experiences  
L.C.O. Bismarck1, C. King-Hassler2, A. Spivak1, T. Almqvist1, P. Asp1, H. Wallfors, R. Sundqvist1, U. Hertin1, Stockholm/SE, Sofia/Korea/SE

15:00  
B-0150  CT perfusion of head and neck lymph nodes: differentiation between untreated and treated lymphoma  
A.M. Jawad1, N.M. Batouti2, A.A. Rahe2, S. Eteles3, M.A. Shaheed1, T.J. Vo61, M. Martínez41, M. Frankfort41, A.M. Batouti2

14:00  
B-0151  Prediction of treatment response in head and neck carcinomas using IVIM-DWI: evaluation of lymph node metastasis  
T. Heuer1, M. Essa1, F.B. Lauren1, M. Menter1, A. Jansen1, K.H. Fritsche1, B. Stroes1, W. de Vries71, E. Schillings61, Stuttgart/DE

14:09  
B-0152  Combined perfusion-diffusion-weighted MRI for staging of recurrent papillary thyroid cancer: a feasibility study  
H.Y. I. De Jong2, T. Hermans, F. De Keyser, V. Vander Poorten, S. Nuys2, E. Haeben, B. Decallonne, M. Be, V. Vanderlinden; Leuven/BE

14:27  
B-0153  Diagnostic evaluation of patients with squamous cell cancer of the head and neck after free flap reconstructions — the usefulness of functional imaging techniques  
M. Schirmer; A. Trojanowski, P. Trojanowski, J. Kludra, A. Drop, Lublin/PL

14:36  
B-0154  The role of MRI and FDG PET/CT imaging in the detection of unknown primary tumours with cervical metastases  
A. Leep, Budapest/HU

14:45  
B-0155  Diffusion-weighted MR imaging in characterization of head and neck lesions  
F.Y. Ozturk, F.Y. Dörmene, F. Kural, S. Çetiner, M. Ağıldere, Ankara/TR

14:54  
B-0156  Comparison of contrast-enhanced PET/CT and PET/MRI with only T2-weighted images in patients with head and neck cancer – how much MR information is needed in PET/MRI?  
F.P. Krohn1, M. Hüller1, S.S. Kollas1, G.K. Von Schulthess1, P. Wet-Habach1, Zurich/CH

15:03  
B-0157  Comparison of contrast-enhanced PET/MRI and contrast-enhanced PET/CT in patients with head and neck cancers  
F.P. Krohn1, M. Hüller1, S.S. Kollas1, G.K. Von Schulthess1, P. Wet-Habach1, Zurich/CH

15:12  
B-0158  Initial clinical results of simultaneous PET/MRI in comparison with PET/CT in patients with head and neck cancer  
P. Szekeres2, P. Kubera1, S. Purz, M. Gawilizta, A. Kuhn, F.G. Steinhoff, A. Boehm, R. Klipp, F. Kuhn, Leipzig/DE

15:21  
B-0159  Diagnostic accuracy of 18F-FDG-PET/CT and fused 18F-FDG-PET-MR images for T and N staging of primary oral malignancies  
P. Heusser1, C. Buchbender2, C. Sproll1, T. Almqvist1, A. Scherer1, G. Antoch1, J. Handschel1, T.A. Heusner1, Düsseldorf/DE, Essen/DE
**14:00–15:30 Room D1**

**Chest**

**SS 204 Airways and infiltrative lung diseases**

**Moderators:** G.R. Ferretti, Grenoble/FR, C. Mueller-Mang, Vienna/AT

**B-0160**  How does iterative image reconstruction effect emphysema quantification with chest CT?


**14:09**

**B-0161**  Assessing pulmonary perfusion in emphysema: automated quantification of perfused blood volume in dual-energy CTPA

F.G. Menzel, S. Graef, S.F. Thereau, F. Bambang, C. Neurohr, M.F. Reiser, T.C. Johnson, Munster/DE

**14:18**

**B-0162**  Densitometry on MDCT in cystic fibrosis: radiological evidence for emphysema


**14:27**

**B-0163**  The effect of inspiration on airway dimensions measured in CT images from the Danish Lung Cancer Screening Trial


**14:36**

**B-0164**  Chronic bronchitis in large airways: airway wall measurements on thin-slice low-dose CT


**14:45**

**B-0165**  Value of inspiratory and expiratory lung volume and density for detection of bronchiolitis obliterans syndrome (BOS): a feasibility study


**14:54**

**B-0166**  Value of density mappings in computed tomography for detection of bronchiolitis obliterans syndrome (BOS)


**15:03**

**B-0167**  Feasibility of krypton ventilation for CT imaging of lung ventilation: preliminary animal data


**15:12**

**B-0168**  Quantification of idiopathic pulmonary fibrosis by semiquantitative HRCT score: correlation between radiologists and pulmonary function tests


**15:21**

**B-0169**  High-resolution computed tomography (HRCT) of the lungs in brain dead pigs: a feasibility study


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**14:00–15:30 Room D2**

**Interventional Radiology**

**SS 209 Ablation and biopsy of the prostate and the kidney**

**Moderators:** J.J. Fütterer, Nijmegen/NL, J. Kettenbach, Berne/CH

**B-0170**  1.5T magnetic resonance-guided transgluteal biopsies of the prostate in patients with clinically suspected prostate cancer: technique and feasibility


**14:09**

**B-0171**  Magnetic resonance-guided biopsy (MRGMB) in combination with multiparametric MRI (mpMRI) after negative transrectal guided ultrasound (TRUS) biopsy of the prostate

S. Palacci, T. Helbich, K. Pinker-Demmers, S. Leitner, P. Brader, Vienna/AT

**14:18**

**B-0172**  MRI-guided biopsy of the prostate: evaluation of patient acceptance and adverse effects

F. Fabrellas, C. Ramírez Fuentes, J. Vilar Samper; Valencia/ES

**14:27**

**B-0173**  MRI+US fusion-guided prostate biopsy and ablation

H. Bruder*, S. Xu*, P. Pinto*, B. Wood*, Berne/CH, Düsseldorf/DE

**14:36**

**B-0174**  Non-invasive focal therapy of organ confined prostate cancer: phase I study using magnetic resonance guided focused ultrasound technology and excision pathology for efficacy assessment


**14:45**

**B-0175**  Technical challenges, pitfalls and obstacles on performing prostatic artery embolisation for benign prostatic hyperplasia

H.A.M.R. Rio Tinto, T. Bilhim, L. Fernandes, J. Pereira, J.M. Pisco, Lisbon/PT

**14:54**

**B-0176**  Mid-term results of percutaneous image-guided radiofrequency ablation of renal tumours

P. Balageas*, F. Cornelis, T. Le Bras*, J.-M. Ferrière, A. Ravaud, N. Grenier, Bordeaux/FR

**15:03**

**B-0177**  Retrospective study of renal tumours treated with radiofrequency ablation at Uppsala University Hospital since 2007: which factors affect ablation results?

V. Buva*, A. Myagrus, P. Dahlman, E. Breken, M. Lennmark, Uppsala/SE

**15:12**

**B-0178**  Irreversible electroporation (IRE) of the pig kidney with involvement of the renal pelvis – technical aspects, clinical outcome and 3d lesion analysis


**15:21**

**B-0179**  Retrograde ureteral stent exchange: comparison between the direct grasping and the simple snare technique

R. Carvalho*, P. Grasso, G. Luppì, E. Farelà, R. Del Vescovo, F. Guzzetta, B. Beomonte Zobel, Rome/IT
<table>
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<tr>
<th>Time</th>
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14:00 – 15:30 Room F1

**Oncologic Imaging**

**SS 216 New biomarkers for tumour quantification**

Moderators: C.J. Herold, Jerusalem/IL, C. Keyzer, Brussels/BE

14:00

**B-0200** 3D CT-histogram analysis enables distinguishing affected and FDG-negative lymph nodes in patients with lung cancer


14:09

**B-0201** Tumour vascularization imaging without contrast agents: the potential of IVIM-MRI


14:18

**B-0202** Intravoxel incoherent motion (IVIM) diffusion-weighted MRI for monitoring the therapeutic efficacy of a vascular disrupting agent (CKD-516) in rabbit VX2 liver tumours

A. Lee, J. Lee, H. Han, B. Choi, Seoul/KR

14:27

**B-0203** Texture analysis on contrast-enhanced computed tomography combined with FDG-PET in predicting the response to chemotherapy of advanced non-small cell lung cancer


14:36

**B-0204** Texture analysis of advanced non-small cell lung cancer on contrast-enhanced computed tomography: prediction of the response to the first-line chemotherapy

M. Ravani, M. Morassi, D. Farina, E. Rocca, R. Maroldi, Brescia/IT

14:45

**B-0205** Textural analysis of lymphoma on unenhanced computed tomography: initial evidence for a relationship with tumour glucose metabolism, stage, end of treatment status and survival

S. Häcker, B. Ganesan, A.M. Groves, I. Kayani, London/UK

14:54

**B-0206** Improvement in both specificity and sensitivity of readers with next generation of mammography CAD

V. Nikitin, I. Lossev, A. Filatov, N. Baigotskaya, Longmont, CO/US

15:03

**B-0207** Assessing the contribution of hypoxia to R2* differences between cancerous and normal prostate tissue

A. Johnson, A. Latifoltojar, V. Hamy, H. Fitzke, K. Shmueli, S. Punwani, Mannheim/DE

15:12

**B-0208** Scatter amplitude is a good landmark for tumour localisation and treatment assessment in time-domain diffuse optical tomography during neoadjuvant chemotherapy in breast cancer


15:21

**B-0209** Software validation of metastatic sarcoma lesion assessment using CT volumetric density tumour trajectory

L.R. Rolo, V.M. Derden, E.C. Jones, M.S. Merchant, A.M. Verkade, E. Lotari, Bethesda, MD/US, Tel Hashomer/IL

14:00 – 15:30 Room F2

**Breast**

**SS 202 Improvements in preoperative staging of breast cancer**

Moderators: R.A. Kubik-Huch, Baden/CH, A. Zytoom, Shebin El-Kom/EG

14:00

**B-0210** Usefulness of ultrasonography (US) and ultrasonography-guided fine-needle aspiration biopsy (FNAB) for axillary staging in breast cancer: is the breast imaging reporting and data system (BI-RADS) categorisation applicable?

H. Fern, S. Kim, B. Yun, M. Kim, M. Jang, S. Park, S.-W. Kim, E. Kang, Gyeonggi-do/KR

14:09

**B-0211** Improving diagnostic yield in axillary lymphadenopathy sampling: core biopsy and vacuum-assisted core biopsy


14:18

**B-0212** Gadofosveset-enhanced axillary MRI for nodal staging in breast cancer


14:27

**B-0213** Assessment of 18 Fluorodesoxyglucose positron emission tomography (18FDG PET-CT) vs contrast-enhanced magnetic resonance imaging at 3 Tesla (3T CE-MRI) for lymph node staging in breast cancer patients

H. Masuyama, T. Nishiyama, N. Wenzert, G. Karanikas, P. Brader, K. Pinker-Dormling, Vienna/Austria

14:36

**B-0214** Imaging of axillary lymph nodes in breast cancer patients: How do enhancement kinetics of contrast-enhanced lymph nodes apparent on dynamic MR-mammography correlate with standardised uptake value of 18F-FDG PET/CT?


14:45

**B-0215** Ultrasound elastography in the diagnostic assessment of axillary lymph nodes in women presenting to a breast imaging centre

L. Jiny, L. Leong, Singapore/SG

14:54

**B-0216** The 2011 trial: is this the end of axillary ultrasound in the pre-operative assessment of breast cancer patients?


15:03

**B-0217** Surgical impact of preoperative breast MRI in women under 40

### Neuro

#### SS 211 Infection and inflammation

<table>
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<tr>
<td>B-0227</td>
<td>Directional diffusivity changes describing microstructural damage in normal appearing and lesioned cervical cord white matter in multiple sclerosis</td>
<td>N. Brinkman, P. Gotzsche, S. Tai, Zjih/NT</td>
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#### SS 201b Hepatocellular carcinoma: diagnosis and management

<table>
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<tr>
<td>B-0230</td>
<td>Intravoxel incoherent motion diffusion-weighted MR imaging of hepatocellular carcinoma: correlation with enhancement degree and histological grade</td>
<td>S. Woo, J. Lee, J.-H. Yoon, I. Joo, J. Han, B. Choi, Seoul/MR</td>
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<td>B-0231</td>
<td>Accuracy of contrast-enhanced imaging in the pretransplantation staging of hepatocellular carcinoma (HCC) and pathologic predictive factors of HCC recurrence after liver transplantation (LT)</td>
<td>G. Benatti, A. Pecchi, M. De Santa, G. Tarrantino, F. Di Benedetto, P. Tornicelli, Modena/IT</td>
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<tr>
<td>B-0232</td>
<td>Detection of HCC and liver metastases with BR14: final results of a multicentre phase IIA study</td>
<td>J. Hofmann1, A. Müller1, H. Skrok2, K.-J. Wolf3, A. Martegani4, C.F. Dietrich5, T. Albrecht6, Basle/CH, Berlin/DE, Baltimore, MD/US, Como/IT, Bad Mergentheim/DE</td>
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<td>B-0233</td>
<td>Integrating contrast-enhanced sonography (CEUS) in the follow-up algorithm of patients with percutaneously ablated hepatocellular carcinoma (HCC)</td>
<td>O. Calvarano, P. Valione, V. Granata, F. Izzo, V. Alibas, A. Nunziata, A. Petriello, Naples/IT</td>
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<td>B-0235</td>
<td>Role of dynamic contrast-enhanced perfusion MR imaging in monitoring of patients with HCC lesions treated by radiofrequency ablation or transarterial chemoembolization</td>
<td>C. Tratteno1, D. Ippolito, M. Colombo, P.A. Bonaffini, R. Corso, S. Sirioni, Milan/IT</td>
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<td>B-0236</td>
<td>Diagnostic efficacy of combined dynamic perfusion MRI with ADC mapping in the assessment of therapeutic effects of HCC-treated lesions: preliminary results</td>
<td>D. Ippolito, C. Tratteno, P. Bonaffini, C. Capraro, R. Corso, S. Sirioni, Monza/IT</td>
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<tr>
<td>B-0237</td>
<td>Recurrence patterns of hepatocellular carcinoma (HCC) after liver transplantation (LT) and variations in dynamic imaging and histopathological characteristics between the primary and the intrahepatic recurrent HCC</td>
<td>G. Benatti1, A. Pecchi1, M. De Santa1, G. Tarrantino1, F. Di Benedetto1, P. Tornicelli1, Modena/IT</td>
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#### B-0219 Is availability of breast MRI-guided intervention associated with improved results of breast MRI screening of the contralateral breast in women with newly diagnosed breast carcinoma? | V. Freitas1, S. Hukamani, S. Ghar1, R. Fleming2, A. Scarrano2, P. Cretabi2, A. Amanakis, T. Maris, Iraklion/GR | |

#### B-0218 Imaging features in mammography and breast ultrasound are related to HER-2 receptor overexpression of primary invasive breast cancer | A. Adams1, K.G.A. Gilhuijs1, K.E. Pengel2, C.E. Loo2, W.P.T.M. Mali1, S.G. Elias1, Bad Mergentheim/DE, Utrecht/NL | |


#### B-0226 Imaging features in mammography and breast ultrasound are related to HER-2 receptor overexpression of primary invasive breast cancer | A. Adams1, K.G.A. Gilhuijs1, K.E. Pengel2, C.E. Loo2, W.P.T.M. Mali1, S.G. Elias1, Iraklion/GR | |

#### B-0227 Directional diffusivity changes describing microstructural damage in normal appearing and lesioned cervical cord white matter in multiple sclerosis | N. Brinkman, P. Gotzsche, S. Tai, Zjih/NT | |


#### B-0229 3T MRS alterations in brain metabolism in HAART-naive HIV infection | A. Trofimova1, T. Trofimova, G. Kataeva, S. Medvedev, N. Belyakov, V. Rassokhin, A. Korotkov, E. Malakhova, St. Petersburg/RU | |
B-0238 Accuracy of mRECIST versus RECIST 1.1 in predicting outcome in hepatocellular carcinoma treated with Sorafenib
G. Galluisi, M. Di Martino, C. Lombardo, M. Del Monte, R. D. Miscio, A. F. Attili, C. Catalano, Rame/IT

14:00–15:30 Room L/M

B-0239 Could antiplatelet therapy prevent hepatocellular carcinoma? 7 Tesla liver magnetic restance imaging study in a mouse model of hcv-related chronic hepatitis
P. Martin, A. Esposito, G. Sita, A. Palmisano, T. Caru, F. De Cobelli, L.G. Guidotti, A. Del Maschio, Milan/IT

14:00–15:30 Room N/O

Vascular

SS 215 Major vessel imaging
Moderators: W.R. Jaschke, Innsbruck/AT; D. Pelletier, Paris/FR

14.00 B-0250 Low dose runoff CTA: what protocol is preferred without special reconstruction algorithms?
E. Knauf, D. Kalmadnov, Moscow/RU

14.09 B-0251 Value of contrast-enhanced MRA of the peripheral arteries at 3T: results of a large European multicentre trial comparing meglumine gadoterate to gadobutrol-MRA with DSA

14.18 B-0252 Nonenhanced quiescent-interval single-shot (QISS) MRA in assessment of peripheral artery disease: comparison with digital subtraction angiography (DSA)

14.27 B-0253 Magnetic resonance thrombus characterisation can identify patients with rapid abdominal aortic aneurysm expansion

14.36 B-0254 CT angiography of abdominal aorta with low kV CT protocol and low contrast medium volume: a feasibility study
C.R.G.L., Tain Francois, D. Ippolito, P. Bonaffini, A.C. Cadonici, A. Masetto, S. Sironi, Udine/IT

14.45 B-0255 An international multi-centre comparison of the non-contrast MR angiography technique time-spatial labelling inversion pulse (time-SLIP) against contrast-enhanced CT angiography for assessing renal artery stenosis: the renal artery contrast-free trial (REACT)

14.54 B-0256 Zonal variations in the size of the atherosclerotic aortic arch during cardiac cycle and their implications on endovascular stenting
S. Puppals, A. Shab, S. Dadream, Leeds/UK
Cardiac

SS 203 Planning cardiac interventions
Moderators: I. Arkhipova, Moscow/RU; P. Mildenberger, Mainz/DE

14:00
B-0257 CT angiography for the evaluation of the thoracic aorta: dynamic changes in the cardiac cycle with implications for thoracic endograft treatment
J. Vidailhet, C. Capuray, P. Carrascosa, J.C. Parodi, M.I. Saquarduy, P. Cortines, Vicente López/AR

14:12
B-0258 Peripheral artery occlusion disease (PAOD): comparison of CE-MRA versus DSA in grading of stenosis and planning therapy

14:27
B-0259 Iodine load reduction in CT aorta angiography with gemstone spectral imaging: comparison with standard CT aorta angiography
X. Lu, J. Wu, J. Suen, M. Chen, Yangzhou/CHN

14:00–15:30 Room P

Radiographers

SS 214 Managing quality and dose in CT
Moderators: E. Apaydin, Athens/GR; A. Yule, Cardiff/UK

14:00
B-0270 Personalised low dose chest CT applying adaptive iterative dose reduction algorithm (AIDR 3D) integrated automatic exposure control techniques with 320-slice MDCT: initial clinical trial
X. Chen, Guangzhou/CN

14:09
B-0271 Feasibility of low dose protocol at 640-slice dynamic volume CT for diagnosing central airways narrowing
Z.-X. Ding, Z. Wang, Hangzhou/CHN

14:12
B-0272 Conducting a national diagnostic reference level survey for computed tomography examinations: the Portuguese experience

14:18
B-0273 Comparison of image quality between left and right arm injection of contrast agent in computed tomography of carotid arteries
D. Hribar, N. Djuric, S. Sterzaj, T. Holc, M. Kovacic, A. Janezic, Ljubljana/SI

14:36
B-0274 Dose assessment in paediatric head computed tomography examinations
B-0275  Dose values in eye lens in paediatric brain computed tomography: influence of different protocols
C. Carriço1, M. Inácio1, A. Kristiansen2, M. Larsen2, J. Santos1, S. Holm2, G. Paulo1;
1 Coimbra/PT, 2 Odense/DK

B-0276  Influence of different arm positioning of MSCT of chest by apply automatic tube current modulation technique
Z.-X. Ding, Z. Wang;
Hangzhou/CN

B-0277  The effectiveness of lead apron for radiation protection in CT
N. Weber, P. Monnin, E. Elandoy, J. Santos,
Lausanne/CH

B-0278  Optimisation of local diagnostic reference levels in head computed tomography
M. Monteiro, A. Carvalho, J. Matias, J. Santos,
Coimbra/PT

B-0279  Comparison of radiation dose and image quality between sequential and spiral brain CT
I. Pace, F. Zart, Moda/MT

B-0280  Consistent automatic adipose tissue quantification in MR abdomen images
D. Smeets, W. Van Hecke, D. Loeckx;
Leuven/BE

B-0281  Computational texture analysis in interstitial lung disease: comparison of descriptors and classification accuracy
J. Ofner1, C. Mueller-Mang1, A. Burner1, D. Markonis2, A. Depeursinge1,
M. Munich/DE, 2 Sierr/CH

B-0282  Quantification of correlations between somatostatin receptors expression in biopsies from neuroendocrine tumours and PET/CT uptake values in the context of personalised medicine
M. Athelogou1, D. Klaemmer1, A. Lupp1, V. Prasad1, B. Schraeyemae1,
M. Munich/DE, 1 EU

B-0283  3D analysis CT software in volumetric and densitometric analysis of urinary stones
M. Moschetto, A. Scardapane, M. Telegrafo, G. Angelelli, A.A. Stabile Ianora;
Bari/IT

B-0284  The 3DSlicer open-source platform for segmentation, registration, quantitative imaging and 3D visualization of biomedical image data
S. Pujol1, S. Pieper2, R. Kikinis1;
1 Boston, MA, US, 2 Cambridge, MA, US

B-0285  Can the CT acquisition protocol be used in combination with the study description to optimise patient dose tracking for CT examinations?
T. De Bondt1, Q. Collier1, R. Salgado1, M. Geldof1, F. Deferme1, J. Valette1,
A. Jomier1, W. Van Hecke1, P.M. Parizel1, Antwerp/BE, Mutzig/FR

B-0286  A patient dose managing solution identifies erroneous parameter settings in CT acquisition protocols, and contributes towards lowering radiation exposure
T. De Bondt1, Q. Collier1, R. Salgado1, M. Geldof1, F. Deferme1, J. Valette1,
A. Jomier1, W. Van Hecke1, P.M. Parizel1, Antwerp/BE, Mutzig/FR

B-0287  Evaluation of the quality of abdominal computed tomography images reconstructed with iterative reconstruction technique
L. Hemikson, A. Persson, M. Sandberg;
Linkoping/SE

B-0288  Improved image quality of virtual non-contrast dual-energy CT images using a new iodine subtraction algorithm
A. Helck, N. Hummel, F. Meinel, S.F. Thieme, M.F. Reiser, A. Graser,
T.R. Johnson, Munich/DE

B-0289  Image quality of monoenergetic low-kV datasets for lower extremity dual-energy CT angiography
S. Sudarko, D. Schneider, P. Apfaltrer, D.U. Schonberg, T. Herfster,
Mannheim/DE

Computer Applications

SS 205  Quantitative image analysis and optimisation
Moderators: L. Faggioni, Pisa/IT, M. Fatehi, Tehran/IR

B-0280  Consistent automatic adipose tissue quantification in MR abdomen images
D. Smeets, W. Van Hecke, D. Loeckx;
Leuven/BE

B-0281  Computational texture analysis in interstitial lung disease: comparison of descriptors and classification accuracy
J. Ofner1, C. Mueller-Mang1, A. Burner1, D. Markonis2, A. Depeursinge1,
M. Munich/DE, 2 Sierr/CH

B-0282  Quantification of correlations between somatostatin receptors expression in biopsies from neuroendocrine tumours and PET/CT uptake values in the context of personalised medicine
M. Athelogou1, D. Klaemmer1, A. Lupp1, V. Prasad1, B. Schraeyemae1,
M. Munich/DE, 1 EU

B-0283  3D analysis CT software in volumetric and densitometric analysis of urinary stones
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B-0284  The 3DSlicer open-source platform for segmentation, registration, quantitative imaging and 3D visualization of biomedical image data
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T. De Bondt1, Q. Collier1, R. Salgado1, M. Geldof1, F. Deferme1, J. Valette1,
A. Jomier1, W. Van Hecke1, P.M. Parizel1, Antwerp/BE, Mutzig/FR
B-0290 70kV computed tomography of the thorax: valence for computer-assisted nodule evaluation and radiation dose – first clinical results

B-0291 Improved accuracy of lung cancer diagnosis for fast-growing lung nodules in CT lung screening by optimisation of volume-doubling time cut-off

B-0292 AIDR improves characterisation of sub-centimetre pulmonary GGN on low dose HRCT
D. Hasselmann Annenrode, H. Meinhoffer, R.S. Codruic, N.S. Paul, Toronto, ON/CA, Markham, ON/CA

B-0293 Comparison of capabilities for differentiating malignant SPNs from benign SPNs among dynamic first-pass perfusion area-detector CT, dynamic first-pass MRI and FDG-PET/CT

B-0294 Can dual-energy index help to differentiate malignant and benign lesions of lung?

B-0295 Features of resolving and non-resolving indeterminate pulmonary nodules on follow-up CT. the NELSON study
Y. Zhao, M. Dorniz, M. Nevelsteen, P. van Dooren, M. Duderkirch, R. Vliegenthart, Groningen/NL

B-0296 Stratification of pure ground-glass opacity (GGO) nodular lung adenocarcinoma using quantitative analysis of CT imaging metrics to select patients for limited-resection more precisely
J. Song, H. Lee, J. Kim, J. Han, K. Lee, D. Pyun, B. Kim, H. Kim, Y. Shim, Seoul/KR

B-0297 Non-solid, part-solid or solid? Classification of pulmonary nodules in thoracic CT by radiologists and a computer-aided diagnosis system

B-0298 Solid pulmonary nodules detected by low-dose CT: effect of semi-automatic software on volumetry in vitro and in vivo
Y. Zhao, M. Dorniz, P. van Dooren, M. Duderkirch, R. Vliegenthart, Groningen/NL

B-0299 Feasibility of training radiographers to detect nodules in CT lung cancer screening

B-0302 Stent-assisted endovascular occlusion of intracranial aneurysms
M.H.J. Voormolen, T. Van der Zijden, M. Menovsky, P.N.M. Panarello, Antwerp/BE

B-0303 Long-term results of microsurgical and endovascular therapy of intracranial aneurysms in patients following subarachnoid haemorrhage
K. Bogaczyk, J. Baron, B. Hoffmeyer, M. Zawada, J. Wałęcz, Warsaw/PL, Katowice/PL

B-0304 Embolisation of cerebral aneurysms with hydrogel-coated coils: systematic review and meta-analysis
A. Polia, Z. Sened, W. Likier, Bydgoszcz/PL

B-0305 Effect of antiplatelet therapy on radiographic outcome of positivity on diffusion-weighted imaging in elective endovascular coil ing of unruptured cerebral aneurysm

B-0306 MR-guided lumbosacral nerve root injection therapy using an open 1.0 Tesla MRI system: a clinical investigation

B-0307 Vertebral split fractures: the role of percutaneous vertebroplasty
L. Haskell, P. Hauser, P-Y. Marci, P. Foi, M-E. Amoretti, P. Brunner, N. Amoretti, Nice/FR, Bordeaux/FR, Monaco/ME

B-0308 Percutaneous vertebroplasty in vertebra plana: does the presence of intravertebral cleft impact the efficiency of the procedure?

B-0309 Percutaneous ablation of spinal osteoid osteoma: report of 37 patients
G. Tsoumakidou, J. Garnon, I. Enescu, X. Buy, A. Ganaj, Strasbourg/FR
B-0310 Efficacy of intra-tendinous injection of platelet-rich plasma to treat tendinosis: comprehensive assessment on a murine model

B-0311 High volume image-guided injections in patellar tendinopathy

B-0312 Biomechanical properties of the calcaneal tendon in vivo assessed by transient shear wave elastography

B-0313 Muscle elastography in patients affected by multiple sclerosis

B-0314 Dixon-based MRI for assessment of muscle-fat content in-vitro and in patients with achillodynia in comparison to healthy volunteers

B-0315 Postmortal 31P magnetic resonance spectroscopy of the skeletal muscle: a-ATP/Pi ratio as a forensic tool?

B-0316 Visceral fat by DXA: current methods and potential clinical implications

B-0317 Post-exercise intramyocellular acetylcarnitine levels in endurance trained and sedentary subjects measured with 1H-MRS

B-0318 In vivo differentiation of muscle precursor cells using MR relaxometry

B-0319 MRI findings of the bone marrow related to unloading with longitudinal follow-up
### Breast

**SS 502  Elastography and other advances in breast ultrasound**

Moderators: D. Djilas-Ivanovic, Sremska Kamenica/RS, P. Skaane, Oslo/NO

**10:30**

**B-0330**  Quantitative shear wave elastography: evaluating an additional use with conventional ultrasound in diagnosis of breast lesions  
J. Moon, K.-S. Jung, S. Koh, J.-Y. Jung; Anyang-si/KR

**10:39**

**B-0331**  Quantitative ShearWave ultrasound elastography: initial experience in palpable breast masses  
S. Hari, S. Naga, A. Dhar, M. Jana; New Delhi/IN

**10:48**

**B-0332**  Can the ring sign improve the performance of shearwave elastography in benign/malignant differentiation of screen detected solid breast masses?  
M. Szewcyk-Bieda, A. Evans, S. Vinnicombe, P. Whelehan, K. Thomson; Dundee/UK

**10:57**

**B-0334**  Influence of menopause in women on breast elasticity measured by elasticity parameters with sonoelastography  
X. Wang, Y. Wang, P. Xu; Shanghai/CN

**11:06**

**B-0335**  Stiffness measured by Shear Wave elastography: a biomarker of the early chemotherapy response in a human breast cancer model?  

**11:15**

**B-0336**  SONAZOID® (perfluorobutane) microbubble-enhanced ultrasound for differential diagnosis of breast lesions: pooled analysis of phase 2 and 3 clinical studies  

**11:24**

**B-0337**  Improvement of breast lesion detection in 51 patients using an automated breast volume scanner (ABVS): initial study  
X. Wang, Y. Wang, P. Xu; Shanghai/CN

**11:33**

**B-0338**  Usefulness of real-time virtual sonography (RVS) on the evaluation of MRI-detected lesions of the breast in second-look sonography  

**11:42**

**B-0339**  Targeting accuracy of real-time virtual sonography (RVS) in sonographic identification of enhancing lesions in breast MRI  

### Genitourinary

**SS 507  New frontiers in GU imaging**

Moderators: G. Hagen; Oslo/NO, C.M.A. Hoeks; Nijmegen/NL

**10:30**

**B-0340**  Functional evaluation of transplanted kidneys using arterial spin labelling (ASL) MRI at 1.5T and 3T: results in 105 patients  

**10:39**

**B-0341**  Assessment of novel chemokine-directed therapy of renal allograft rejection in a murine animal model with multiparametric functional MRI  
M. Notohamiprodjo, A. Kalnins, M. Kolb, A. Wagner, M.F. Reiser, K. Nikolaou, J. Andreesen; Munich/DE

**10:48**

**B-0342**  Assessment cisplatin-induced interstitial nephropathy using diffusion-weighted MRI  
H. Del Verzul, P. Ghezzi, R. Cazzato, L. Piccolo, R.F. Grasso, B. Beomonte Zobel; Rome/IT

**10:57**

**B-0343**  Value of diffusion-weighted-MR-imaging for the detection of nephritis  
H.J. Michaely1, M. Reichen2, F. Henninger1, S. Haneder1, S.O. Schönberg2, M. Reischl, M.F. Reiser, K. Nikolaou; Munich/DE

**11:06**

**B-0344**  DCE-MRI assessment of kidney function and renal masses: single slice versus whole organ/tumour  
M. Notohamiprodjo, A.D. Helck, S. Winter, M. Staehler, M. Braunvogel, M. Reischl, M.F. Reiser, K. Nikolaou; Munich/DE

**11:15**

**B-0345**  In vivo sodium (23Na) imaging of the human kidneys at 7.0T: preliminary results  
S. Haneder1, P. Herold2, S.O. Schönberg1, S. Trattnig2, S. Zbiri; 1Mannheim/DE, 2Innsbruck/AT

**11:24**

**B-0346**  Arterial spin labelling for the prostate: initial experience at 3T MRI  
S. Takahashi1, N. Aoyama1, T. Kimura2, K. Kitajima1, Y. Ueno1, S. Sato1, K. Sugiyama1, A. Koba1, O. Tatewara1, O. Otsuka1

**11:33**

**B-0347**  A new look at the female pelvis: ultra-high-field (7T) MR imaging  
L. Umbo, R. Böke, A. Fischer, S. Kinner, S. Ladenmann, M. Forster, M.E. Ladd, T. Lauterstein; Essen/DE

**11:42**

**B-0348**  Bridging septa in T2-weighted MRI of healthy volunteers: is there an association with the peri- and pararenal fat thickness?  

**11:51**

**B-0349**  Feasibility of 3T MR diffusion tensor imaging (DTI) for reconstructing anatomic connectivity of sacral plexus  
V. Iotti1, A. Pecchi1, L. Nocetti1, F. Fiocchi1, C. Alboni2, P. Torricelli1; 1Modena/IT, 2Sassuolo/IT
**Neuro**

**SS 511 Stroke-related arterial disease**
Moderators: E. Avdagic, S. Sanayoa/BA, P. Barsi, Budapest/HU

10:30 Atherosclerotic calcification is related to cognitive decline: the Rotterdam study

10:39 Does clinical severity in acute stroke reliably predict large vessel occlusion? Results from a prospective cohort study of CT angiography (CTA) in hyper-acute stroke
C. Hansen, C. Ovesen, H. Christensen, I. Havsteen, J. Nielsen, A. Christensen, Copenhagen/DK

10:48 Value of monoenergetic low KV dual-energy CT datasets for improved image quality of cerebral and central CT-angiography
D. Schneider, P. Affalter, M. Hauberdengesser, M. Meyer, S. Sudański, C. Fink, G. Schomburg, T. Henzler, Mannheim/DE

10:57 Black blood MRI in patients with and without suspected primary angitis of the central nervous system
S. Senner, T. Plefferkorn, M. Habs, O. Herber, A. Straube, M. Dichtlajans, M.F. Reiser, N. Kalilaz, J. Linn, Munich/DE

11:06 3T MRI reveals extra- and intracranial involvement in giant cell arteritis (GCA)
S. Senner, C. Brekenfeld, T. Fink, T. Bley, Hamburg/DE

11:15 BOLD fMRI of cerebrovascular reserve in patients with severe stenosis of the middle cerebral artery: preliminary results

11:24 Intracranial artery calcification on CT predicts poor outcome after stroke: results from a prospective cohort study

11:33 Intracranial artery stenosis on CT angiography (CTA) predicts poor outcome after stroke: results from a prospective cohort study

11:42 Contribution of the temporal maximum intensity projection (tMIP) datasets for measurement of the middle cerebral artery (MCA) occlusion and predictive value for results of systemic thrombolytic therapy
J. Bai, Z. Tupy, V. Hofer, B. Kreuzberg, T. Fink, Munich/DE

11:51 MRI findings in small vessel disease and their relationship to cognitive impairment

**Vascular**

**SS 515 Novel tools for blood flow evaluation**
Moderators: J. Bankhauser, Z. Bash, F. Ganoc, Rome/IT

10:30 Assessment of blood flow haemodynamics of liver cirrhosis patients after treatment with a TIPS stent-graft using a flowsensitive 4D MRI imaging at 3 Tesla
Z. Markow1, M.F. Roos1, B. Junge2, W. Euringer1, Z. Coatar1, L. Stehler1, M. Langen1, M. Mark1, P. Luscher1, Busan/KR

10:39 Evaluation of atherosclerosis and endothelial functions in nonalcoholic hepatosteatosis patients: comparison with ultrasound and biochemical markers
M. Yilmabasar1, A. Hayirlioglu1, U. Ozdamarlar1, F. Kuru, Istanbul/TR

10:48 CT angiography in renal donors using automated kVp selection in combination with sinogram-affirmed iterative reconstruction: evaluation of radiation dose and image quality
M.P.F. Botelho1, T.A. Heusner1, G. Antoch1, P. Kröpil1, Düsseldorf/DE

10:57 CT angiography in renal donors using automated kVp selection in combination with sinogram-affirmed iterative reconstruction: evaluation of radiation dose and image quality
M.P.F. Botelho1, T.A. Heusner1, G. Antoch1, P. Kröpil1, Düsseldorf/DE

11:06 Comparison of high pitch (3) and standard pitch (0.6) CT angiography using 128-slice dual-source CT in patients with peripheral arterial disease
K. Choo, J. Park, J. Kim, J. Roh, Busan/MN

11:15 Differential diagnosis of cervical artery dissection and intra-arterial thrombosis using MRI and MRA
M. Kursun1, M. Kretschmer1, L. Kalashnikova1, L. Dobrovinna1, K. Konovalov, Moscow/RU

11:24 Impact of organ-specific dose reduction on image quality of head and neck CT-angiography
R.S. Lanzman1, L. Schimmöller1, P. Heusch1, S. Dietrich1, F. Miese1, J. Aruso, T.A. Hauser1, G. Antoch1, P. Kropil1, Düsseldorf/DE

11:33 The application of CT angiography with whole brain perfusion imaging in the evaluation of patients with transient ischaemic attack
H. Shi, F. Yang, W. Guo, S. Dong, M. Qiao, Beijing/CH

11:42 Multicentre, intra-individual comparison of single dose gadobenate dimeglumine and double dose gadopentetate dimeglumine for MR angiography of the peripheral arteries
R. Desc1, J. Wang1, F. Yan1, J. Lu1, D. Li1, X. Wang2, Y. Li1, F. De Cobelli1, G. Provan1, 1Rome/IT, 2Shanghai/CH, 3Peking/CH, 4Jiefu/CH, 5Milano/IT, 6Princeton, NJ/US
Cardiac

**SS 503 Advances in coronary CT angiography**

*Moderators: S. Bohata, Brno/CZ; L. Natali, Sesto Fiorentino/IT*

10:30

**B-0370 Evaluation of a novel algorithm for coronary motion compensation in prospective and retrospective coronary CT angiography (CCTA)**

J.-L. Sablayrolles¹, J. Feignoux¹, P. Ayestaran², A. Sagniez²; ¹Saint Denis/FR, ²Buc/FR

10:39

**B-0371 Estimating effective dose for cardiac CT with patient-specific dose maps in comparison with DLP conversion ("k factor") method**

J.H. Yanof¹, C. Thompson¹, J. Wiegert², K. Yaddanapudi¹, S. Halliburton¹; ¹Cleveland/WUS, ²Hamburg/DE

10:48

**B-0372 Impact of a new detector technology (Stellar, Siemens Healthcare) on image noise in coronary CTA**

M. Williams¹, S. Golay¹, N.W. Weir¹, N.W. Weir¹, S. Mirsadraee¹, E.J.R. Van Beek¹, J. Hausleiter¹; ¹Edinburgh/UK, ²Melrose/UK

10:57

**B-0373 Radiation dose reduction in computed tomography myocardial perfusion imaging using iterative reconstruction and patient-tailored imaging**

M. Williams¹, S. Golay¹, N.W. Weir¹, S. Mirsadraee¹, E.J.R. Van Beek¹, J. Hausleiter¹; ¹Edinburgh/UK, ²Melrose/UK

11:06

**B-0374 Radiation dose reduction in cardiac CTA using a novel iterative reconstruction algorithm in 320-row detector CT**

T. Ilia§, R. Luhur¹, J. Blobel², J. Mews², A. Lemboce¹; ¹Berlin/DE, ²Munich/DE

11:15

**B-0375 Computed tomography coronary angiography with a consistent dose below 2 mSv using double high-pitch spiral acquisition in patients with atrial fibrillation**

S. Wang¹, Y. Chen¹, B. He¹; ¹Beijing/CN

11:24

**B-0376 Coronary artery calcium scoring from dual-source CT: potentials for un gated, high-pitch scan technique in routine clinical practice**

P. Melki¹, A. Haddj, M. Rémy-Jardin¹, J.-B. Farve, A. Simeone, E. Algeri¹, J. Rémy¹; ¹Lille/FR

11:33

**B-0377 Diagnostic accuracy of free-breathing coronary CTA using dual-source CT high-pitch acquisition: comparison of single and double scans with conventional angiography**

M. C. Ten¹, W. Chu¹, C.M. Wong¹, C.W. Tai¹, M.W. Leung¹; ¹Hong Kong/HK, ²Singapore/SG

11:42

**B-0378 One beat coronary CT angiography using 640 slices multidetector CT scanner in patients with atrial fibrillation**

A. Gennarelli¹, A. Di Sibio¹, M. Perri¹, F. Di Stasio¹, V. Felli¹, M. Di Luzio¹, A.V. Giordano¹, E. Di Cesare¹, E. Masciocchi¹; ¹L’Aquila/IT

11:51

**B-0379 Influence of AIDR on accuracy of plaque characterisation and lumen assessment during CT coronary angiography**

A. Chia², H. Methrie², H. Kachani², N. Paul², Toronto/ON, CA

Radiographers

**SS 514 The radiographer’s role as health care team member**

*Moderators: V. Syrgiamiotis, Athens/GR; C. Vandulek, Kaposvár/HU*

10:30

**B-0380 How do radiographers interact with children in the radiographic examination?**

B. Biderman¹, P. Enskär¹, M. Golsater¹, R.J. Simeone²; ¹Jönköping/WUS, ²Melrose/UK

10:39

**B-0381 Requesting x-rays at the right time to utilise the capacity of the radiology department: an everyday challenge**

M. Hardy¹, B. Snaith²; ¹Bradford/UK, ²Wakefield/UK

10:48

**B-0382 Risk management in computed tomography using an incident reporting system**

M. Antoniutti¹, S. Doratiotto¹; ¹Treviso/IT

10:57

**B-0383 Is a radiographer-led immediate reporting service for emergency department referrals a cost-effective initiative?**

M. Hardy¹, B. Snaith²; ¹Bradford/UK, ²Wakefield/UK

11:06

**B-0384 An investigation into the ability of Irish radiographers: in the identification of wrist and scaphoid fractures**

A.P. Tyrrell¹, L. Rainford²; ¹Kilkenny/IE, ²Dublin/IE

11:15

**B-0385 Workloads of reporting radiographers and sonographers: cost-effectiveness compared with consultant radiologist**

W.P. Hedges¹, S.H. Khan²; ¹Lancaster/UK, ²Blackburn/UK

11:24

**B-0386 Radiographer’s expectations for role development: a national survey in view of radiography students in final year of graduation**

C.M. Mendes¹, A.F.C.L. Abrantes¹, R.P.P. Almeida¹, L.P.V. Ribeiro¹, S.I. Rodrigues¹; ¹Faro/PT

11:33

**B-0387 Job satisfaction among radiographers in Switzerland: a national survey**

N. Reim Mayer¹, P. Lehmann¹, N. Mamboury¹; ¹Lausanne/CH

11:42

**B-0388 Progression of quality improvement works in radiography by radiographers**

R. Gullien¹, J.G. Andersen¹, A.E. Haakull¹; ¹Oslo/NO

11:51

**B-0389 Radiographer contribution to the interpretation of trauma radiographs: a survey of UK practice**

B. Snaith¹, M. Hardy¹, E. Lewis¹; ¹Wakefield/UK, ²Bradford/UK
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
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<tr>
<td>14:00</td>
<td>SS 607</td>
<td>Female pelvis imaging</td>
<td>Moderateurs: L.S. Fourrier, Paris/FR, A.G. Rockall, London/UK</td>
</tr>
<tr>
<td>14:00</td>
<td>B-0390</td>
<td>Diagnostic and prognostic value of 18F-FDG PET/MR over MR and PET/CT in recurrent gynaecological malignancies prior to pelvic exenteration</td>
<td>I.A. Most, H.A. Varela, D.F. Donati, V. Andrykyn, H. Schoder, D. Chi, E. Saka, H. Mezuki, Zurich/CH, New York, NY/US</td>
</tr>
<tr>
<td>14:09</td>
<td>B-0391</td>
<td>Diagnostic value of quantitative measurement of microvascular changes achieved using perfusion MR imaging in the assessment of tumour grading in endometrial carcinoma</td>
<td>G. Minutolo, D. Ippolito, L.S. Maitese, D. D’Elia, A. Luceri, V. Ricci, L. Vattelani, Siena/IT</td>
</tr>
<tr>
<td>14:18</td>
<td>B-0392</td>
<td>Influence of pathophysiological parameters with kinematic MRI in evaluation of female pelvic floor</td>
<td>M. Pacheco, S. Carbone, L.S. Maitese, D. D’Elia, A. Luceri, V. Ricci, L. Vattelani, Siena/IT</td>
</tr>
<tr>
<td>14:36</td>
<td>B-0394</td>
<td>Fibre tracking evaluation of sacral nervous pathways 3D architecture in women affected by endometriosis</td>
<td>M. Socco, V. Vinco, S. Bernardo, F. Sollazzo, M. Saldan, L. Maranjan, Rome/IT</td>
</tr>
<tr>
<td>14:45</td>
<td>B-0395</td>
<td>How to improve magnetic resonance accuracy in detection of deep infiltrating colorectal endometriosis: correlation with laparoscopy and histopathology</td>
<td>M. Mecco, A.L. Valentini, B. Gu, V. Ferrando, M. Marino, L. Bonomo, Rome/IT</td>
</tr>
<tr>
<td>14:54</td>
<td>B-0396</td>
<td>Preliminary functional study with MR degcohergogy in patients suffering from deep endometriosis</td>
<td>P. Sollazzo, S. Bernardo, M. Seng, V. Vino, M. Saldan, L. Maranjan, Rome/IT</td>
</tr>
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<td>15:03</td>
<td>B-0397</td>
<td>Diffusion-weighted magnetic resonance imaging of the female pelvis: do apparent diffusion coefficient values of the fat tissue change over the menstrual phases?</td>
<td>F. Fornasa, A. Gasparini, F. Pantalone, M. Bellotti, A. Dibenedetto, C. Cicco, San Barnofico/IT</td>
</tr>
<tr>
<td>15:21</td>
<td>B-0399</td>
<td>Retrospective analysis of elements that can predict short- and long-term outcome in patients affected by uterine leiomyomas and treated with MRgFUS</td>
<td>F. Coia, A. Napoli, F. Saracina, F. Bori, L. Bertacchi, V. Nocce, B. Cavallo Marananda, C. Catalano, Rome/IT</td>
</tr>
<tr>
<td>14:00</td>
<td>SS 611</td>
<td>Alzheimer’s and Parkinson’s</td>
<td>Moderateurs: B. Góraj, Nijmegen/NL, T. Mennt, Landshut/DE</td>
</tr>
<tr>
<td>14:00</td>
<td>B-0400</td>
<td>MRI to AD conversion and the role of myoinositol (MI) and N-acetylaspartate (NAA) as biomarkers for this process</td>
<td>J. Walczak, M. Barcikowska, J.B. Ćwikła, G. Brzyca, J. Gabrylewicz, T. Bulski, Warsaw/PL</td>
</tr>
<tr>
<td>14:45</td>
<td>B-0405</td>
<td>Subthalamic nuclei 3 Tesla T2-relaxometry correlated to UPDRS scores in pre-deep brain stimulation (DBS) patients with Parkinson disease with consideration to the laterality of the disease</td>
<td>T.M. Lemhr, K. Wittek, T. Retzlet, J. Stooboom, C. Kiefer, A. Kaelin-Lang, C. Polia, P. West, Berne/EW</td>
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<td>14:54</td>
<td>B-0406</td>
<td>Increased regional grey matter volume in Parkinson’s disease patients with excessive daytime sleepiness: an MRI study</td>
<td>M. Chien, C.J. Tsai, W.Y. Kuo, P. Kost, M. A. Angiopoulos, S. Kostopoulos, Ioannina/GR</td>
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</table>
**Cardiac**

**SS 603a CT and MRI: risk stratification**
Moderators: E.A. Mershina; Moscow/RU, M.R. Rees; Gwynedd/UK

14:00  
**B-0410** Updated algorithms using “in-office-evaluation” and calcium score may reduce referral of stable angina patients to computed tomography coronary angiography

14:09  
**B-0411** Dynamic CT perfusion imaging for the detection of myocardial ischaemia: a first experience with a 3D semi-automated evaluation software
U. Ebersberger1, R.P. Marcus2, U.J. Schoepf1, P. Blanke1, Y. Wang3, L. Geyer1, A.D. McQuiston1, D. Bernhardt4, F. Bamberg2; 1Charleston, SC/US, 2Munich/DE, 3Beijing/CN, 4Forchheim/DE

14:18  
**B-0412** Quantitative evaluation of myocardial perfusion reserve at 3 and 1.5 Tesla in comparison to invasive measurement of fractional flow reserve for detection of coronary artery disease
T. Walcher, R. Krops, W. Rottbauer, J. Wehrle, P. Bernhardt; Ulm/DE

14:27  
**B-0413** Dynamic stress computed tomography perfusion imaging for the detection of functionally significant coronary lesions
A. Rossi1, A. Dharampal1, S.E. Petersen2, E. Klotz3, G.P. Krestin1, K. Gruszczynska4, E. Capuano2, P.J. de Feyter1, F. Pugliese2; 1Rotterdam/NL, 2London/UK, 3Forchheim/DE, 4Katowice/PL

14:36  
**B-0414** In vivo quantification of total atherosclerotic burden: prognostic accuracy of whole body CTA in relation to traditional cardiovascular risk index and 5-year follow-up
F. Zacchera, A. Napoli, G. Cartocci, V. Noce, F. Bori, C. Catalano; Rome/IT

14:45  
**B-0415** Diagnostic performance of computed tomography coronary angiography to detect or exclude angiographic „high-risk-CAD”
A.S. Dharampal, S.L. Papadopoulou, A. Rossi, W.B. Meijboom, E. Boersma, K. Nieman, P.J. de Feijter, G.P. Krestin; Rotterdam/NL

14:54  
**B-0416** Cost effectiveness and rule-out strategy of MDCT-CA in patients with undifferentiated chest pain in emergency department
R. Makaw, M. Tezza, C. Barbieri, A. Pozzato, G. Sala, G. Tosi, R. Pozzi Mucelli; Verona/IT

15:03  
**B-0417** Transient ischaemic dilation of the left ventricle on SPECT: correlation with findings at coronary CT angiography

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**Interventional Radiology**

**SS 609a Oncologic ablation and guided interventions**
Moderators: P. Almeida; Coimbra/PT, A. Basile; Catania/IT

14:00  
**B-0420** Radiation exposure in CT-guided interventions
R. Kloeckner, D. Pinto dos Santos, C. Düber, M. Pitton; Mainz/DE

14:09  
**B-0421** Percutaneous image-guided cryotherapy: a new therapeutic possibility for local recurrence of soft tissue sarcomas?
N. Lippa, A. Italiano, P. Sarago, M. Kind, E. Stoeckle, B. Nguyen Bui, F. Cermea; Bordeaux/FR

14:18  
**B-0422** Robot-assisted radiofrequency ablation of liver tumours: early experience

14:27  
**B-0423** Image-guided percutaneous thermal ablation of hepatic and renal tumours using high-frequency jet ventilation to minimise respiratory motion

14:36  
**B-0424** Radiofrequency ablation of hepatocellular carcinoma associated with chronic liver disease without cirrhosis: long-term experience
L. Setacci, A. Salin, A. Rossini, R. Maroldi, P. Cabassa; Brescia/IT

14:45  
**B-0425** Safety and efficacy of sonographically guided percutaneous radiofrequency ablation of left lobe hepatocellular carcinoma
MIMA, Ibrahim; Shagel/EG

14:54  
**B-0426** Percutaneous, ultrasound-guided IRE ablations of unresectable pancreatic cancer
A. Nilsson, C. Månsso, J. Krause, R. Brahmstaedt, P. Nygren, B.-M. Karlsson; Öppsala/SE
SS 610a  Musculoskeletal tumours

Moderators: E. Quaas, Freistadt/AT, R. Lagark, Bswestry/UK

14:00  B-0430  Magnetic resonance imaging parameters predictive for malignancy: a prospective study of 100 consecutive soft-tissue musculoskeletal masses

V. Vlastou, M. Samarjija, V. Janse, S. Kunos, Leipzig/DE

14:09  B-0431  Evaluation of features and role of ultrasound and MR imaging in large lipomas and well-differentiated liposarcomas


14:18  B-0432  Comparison of efficacy of surgical-, CT- and PET-CT-guided biopsy in musculoskeletal lesions


14:27  B-0433  CT evaluation of thoracic bone metastasis: comparison of 3D volume-rendered images and combined axial and coronal multplanar reconstruction images


14:36  B-0434  DCE-MRI for assessment of vessel remodelling associated with bone defect healing in experimental lytic bone metastases

P. Kranimsky, W. Semmler, T. Bauerle, Heidelberg/DE

14:45  B-0435  View-angle tilting (VAT) and slice-encoding metal artifact correction (SEMAC) for MR imaging of orthopaedic tumor prostheses


14:54  B-0436  Association of QCT bone mineral density and bone structure with vertebral fractures in patients with multiple myeloma

15:03
B-0447
Brown adipose tissue influences body fat composition and hepatic steatosis

15:12
B-0448
In-phase/opposed-phase MRI and MR spectroscopic measurements for the quantification of liver fat content in morbidly obese patients

15:21
B-0449
Dynamic contrast enhanced-MRI (DCE-MRI) functional assessment of vascular events occurring during the intra-hepatic engraftment of pancreatic islets may predict long-term outcome of islets transplantation
A. Palermo, A. Esposito, G. Ianni, P. Maffi, F. De Cobelli, T. Canu, A. Secchi, A. Del Maschio, Milan/IT

14:00–15:30 Room F2
Breast

14:00
B-0450
Early response monitoring of neoadjuvant chemotherapy in breast cancer patients using magnetic resonance imaging: a systematic review

14:09
B-0451
The role of magnetic resonance imaging in assessing residual disease and pathologic complete response in breast cancer patients receiving neoadjuvant chemotherapy: a systematic review

14:18
B-0452
Radiological evaluation of complete pathological response after neoadjuvant chemotherapy treatment of breast carcinoma

14:27
B-0453
Breast MRI at 3T: a pilot study estimating the role of unenhanced MRI (DWI combined with T2 IDEAL sequence) vs CE-MRI in the assessment of response to neo-adjuvant chemotherapy
L. Giordano, F. Pediconi, M. Telesca, M. Luciani, V. Casali, E. Mejio, A. Castrignanò, C. Catalano, Rome/IT

14:36
B-0454
Radiological findings in breast autologous fat injection: a retrospective review in 12-year follow-up
L. Cappellari, J. Baigio, G. Barbarenzi, A. Bianchi, M. Valade, S. Montemessia, Verona/IT

14:45
B-0455
Invasive ductal carcinoma with marked necrosis on neoadjuvant chemotherapy: RECIST or mRECIST in MRI assessment of tumour response?
M.M. Nadjar, C.C. Missiroli, Belgrade/RS

15:03
B-0456
CAD-based assessment of therapy monitoring in neoadjuvant chemotherapy of breast cancer

15:07
B-0457
Breast MRI for assessment of primary systemic chemotherapy (PSC): computer assisted diagnosis (CAD) predicts degree of tissue response and residual tumour mass

15:12
B-0458
Evaluation of residual breast tissue post-mastectomy using breast MRI
V. Taschner, A. Rundstein, A. Shalmon, E. Konen, M. Sklar-Levy, Tel Hashomer/IL

15:21
B-0459
Breast cancer recurrence in DIEP flap reconstructed breasts: a 12-year retrospective study

14:00–15:30 Room G/H
Cardiac

14:00
B-0460
Potential value of fibrosis quantification in dilated cardiomyopathy

14:09
B-0461
Potential value of fibrosis quantification in hypertrophic cardiomyopathy

14:18
B-0462
Extent of myocardial scar detected by late Gadolinium enhancement-cardiac magnetic resonance (LGE-CMR) as a predictor of major adverse cardiac events (MACE) in HCM patients
S. Bertussa, G. Logabue, F. Ficoci, L. Nocetti, S. Vassaulto, V. Morini, A. Barbieri, R. Luigi, Modena/IT

14:27
B-0463
Myocardial scar extension detected by late Gadolinium enhancement-cardiac magnetic resonance (LGE-CMR) for arrhythmic risk stratification of HCM patients
S. Bertussa, G. Logabue, F. Ficoci, L. Nocetti, S. Vassaulto, V. Morini, A. Barbieri, R. Luigi, P. Torecchi, Modena/IT

14:36
B-0464
Prognostic value of RV remodelling in pulmonary hypertension: cardiac magnetic resonance study
N. Uehara, M. Frängeon, I. Carbone, I. Taducci, P. David, C. Vizza, C. Catalano, Rome/IT

14:45
B-0465
Evaluation of Brugada syndrome by cardiac magnetic resonance
L. Kulić, L. Tesař, Z. Del Mejo, S. Diciotti, V. Vagnati, G. Casolo, Lido di Camaiore/IT, Firenze/IT
B-0466  Sensitivity of cardiac magnetic resonance varies with clinical presentation of biopsy-proven acute myocarditis: correlation with necrosis/apoptosis patterns of viral aetiology
G. Cappellini, M. Francione, R. Rosati, P. David, A. Frustaci, C. Catalano; Rome/IT

14:54

B-0468  Right heart involvement in thalassaemia major (TM) patients: a cardiac MR (CMR) assessment
P. Pedone, A. Di Giampietro, F. Pitocco, P. Cianciulli, B. Beomonte Zobel; Rome/IT

15:12

B-0469  β-thalassaemia as a new potential risk factor for left ventricular noncompaction (LVNC): a cardiac MRI evaluation
E. Lisser, I. Di Giampietro, F. Pitocco, E. Lisser, B. Beomonte Zobel; Rome/IT

15:21

B-0470  CT numbers of CBCT regarding position dependence on different size of field-of-view
M. Krumo, T. Todoroki; 1

15:03

B-0471  Dual-source 128-slice MDCT neck: radiation dose and image quality estimation of a clinically relevant dual-energy, high-pitch, standard single-energy protocol
J. Freiwald-Pallamar, J. Widelec, Brussels/BE

15:09

B-0472  Performance of filtered back-projection (FBP), statistical (ASIR) and model-based (VEO) iterative reconstruction of neck CT staging examinations
F. Guggenberger, S. Winklhofer, T. Redel, A. Meier; 2

14:00

B-0473  Maxillary sinus pyocele: a new radiological entity
A. Liguori, I. Di Giampietro, F. Pitocco, P. Cianciulli, B. Beomonte Zobel; Rome/IT

15:19

B-0474  Carotid blowout syndrome in patients with nasopharyngeal carcinoma treated with radiotherapy: a review of 12-year experience
V.K. Kang, J.S. Shum, B.M. Lai, C. Chu, W.K. Chan; Hong Kong/HK

15:27

B-0475  Nasal-type NK/T-cell lymphoma of the nasal cavity and PNS: CT and MR imaging findings
K. Kang, S. Suh, K. Kim, K. Son, Y. Lee, H. Seol, Y. Lee, H. Seol; 1

14:36

B-0476  Temporomandibular joint internal derangement: correlation of MRI findings with clinical symptoms

14:45

B-0477  An investigation of relative signal intensity of MR images in retrodiscal tissue and lateral pterygoid muscle in patients with temporomandibular joint disorder and its relation with MRI findings
Z. Ghoncheh, M. Panjehshiri, H. Banihashemi; Tehran/IR

15:12

B-0478  High resolution 3D MR imaging of the temporomandibular joint: feasibility and comparison with 2D sequences
U. Necco, M. Ravaccini, D. Farina, E. Botturi, R. Manoldi; Brescia/IT

15:21

B-0479  Radiological anatomy of the ethmoidal arteries: a cone beam CT study
L. Sottocornola, M. Dal Corso, M. Ravaccini, L. Panta, R. Manoldi; Brescia/IT

15:27

B-0480  Direct comparison of MR imaging at 1.5- and 3.0-T for evaluating the articular cartilage of the knee
P. Vanhoenacker, L. Kema, Y. Lambrichts, K. Wouters, F. Vanhaecke; 1

14:00

B-0481  Biochemical imaging of the knee’s cartilage: comparison of three techniques at 3 Tesla
C. Behrens, J. Kupfer, N. Strensch, B. Bitterli-Heim; 2

14:09

B-0482  High-resolution flat-panel CT arthrography for cartilage defect detection: comparison to multidetector CT
H. Guggenberger, S. Winklhofer, T. Redel, A. Meier; 1

14:18

B-0483  Longitudinal evaluation of T2 relaxation time in relation to baseline volume of femorotibial cartilage – data from the osteoarthritis initiative
U. Heinrich, F.M. Miese, C. Decker, H. Senyurt, J. Kircher, H.-J. Wittsack; 1

14:27

B-0484  Longitudinal increase of T2 relaxation time in patients with asymptomatic TMJ disease and rare entities
G. Antoch, R. Krauspe, C. Zilkens; 1

14:36

B-0485  Direct comparison of MR imaging at 1.5- and 3.0-T for evaluating the articular cartilage of the knee
P. Vanhoenacker, L. Kema, Y. Lambrichts, K. Wouters, F. Vanhaecke; 1

14:00

B-0486  3D delayed gadolinium-enhanced MRI of cartilage (dGEMRIC) at 3T used to evaluate the effect of hyaluronic acid on cartilage quality in knee osteoarthritis patients
J. van Tiel, M. Reijman, K. Bos, J. Verhaar, G.P. Krestin, S. Bierma - Zeinstra; 1

14:45

B-0487  Temporomandibular joint internal derangement: correlation of MRI findings with clinical symptoms
P. Suh, S. Lee, G. Joseph, C.E. McCulloch, M.C. Nevitt, T.M. Link; 1

15:44

B-0488  T2* mapping and delayed gadolinium-enhanced magnetic resonance imaging in cartilage (dGEMRIC) of glenohumeral cartilage in asymptomatic volunteers at 3T

15:44

B-0489  Biochemical imaging of the knee’s cartilage: comparison of three techniques at 3 Tesla
C. Behrens, J. Kupfer, N. Strensch, B. Bitterli-Heim; 2

14:09

B-0490  High-resolution flat-panel CT arthrography for cartilage defect detection: comparison to multi-detector CT
H. Guggenberger, S. Winklhofer, T. Redel, A. Meier; 1

14:18

B-0491  Biochemical imaging of the knee’s cartilage: comparison of three techniques at 3 Tesla
C. Behrens, J. Kupfer, N. Strensch, B. Bitterli-Heim; 2

14:09
B-0490 Non-invasive treatment of uterine fibroids using MR-guided high-intensity focused ultrasound: results on quality of life, non-perfused volume ratio and size reduction over 12 months
F. Cinga, A. Napoli, B. Cavalli Maricola, F. Boni, F. Zaccagnia, V. Nocce, L. Bertacchini, C. Catalano, Rome/IT

15:09
B-0491 MRI-guided focused ultrasound treatment of symptomatic uterine fibroids: impact of technology advancement on ablation volumes in 115 patients
C.G. Trumm1, T.A. Heusner1, P. Heusch1, V. Hartung-Knemeyer2, K. Beiderwellen2, K.J. Beiderwellen1, T.D. Poeppel1, V. Hartung-Knemeyer1, C. Buchbender2, T.A. Heusner1, C. Buchbender1; 1Düsseldorf/DE, 2Essen/DE

15:18
B-0492 Efficacy of MRI-guided focused ultrasound (MRgFUS) treatment of uterine fibroids: evaluation of non-perfused volume (NPV), fibroid shrinkage and clinical improvement at 6-month follow-up
I. Invernizzi1, M. Varini1, P. Colombo1, F. Zucconi1, S. Sironi1, C. Tora2; 1Milan/IT, 2Monza/IT

15:27
B-0493 Uterine adenomyosis treated by MRgFUS: technical approach and clinical results
F. Ferrari, A. Miccoli, F. Arrigoni, V.A. Giordano, E. Fascetti, G. Mascaretti, F. Zaccagna, A. Napoli, B. Cavallo Marincola, F. Boni, F. Ciolina; 1Monza/IT, 2Milan/IT

15:36
B-0494 Is uterine artery embolisation in large sized myoma as efficient as in normal sized myoma: a retrospective comparative study in 263 patients
I. Choi1, G. Jeon2, M. Kinn1, J. Lee1, J. Yoon1, S. Hwang1; 1Seongnam/KR, 2Seoul/KR

15:45
B-0495 Usefulness of pelvic artery embolisation: a comparison between caesarean section and vaginal delivery in 176 patients
M. Lee1, G. Jeon2; 1Seongnam/KR, 2Seoul/KR

15:54
B-0496 Transarterial embolization in the treatment of postpartum haemorrhage
Z. Wang, X. Li, Z. Jin, Beijing/CN

16:03
B-0497 Uterine artery embolization for management of secondary postpartum haemorrhage associated with placenta accreta
Z. Wang, Z. Jin, X. Li, Beijing/CN

16:12
B-0498 Placenta percreta: role of bilateral occlusion balloons insertion in to internal iliac arteries to prevent haemorrhage and hysterecmy
M. Tedeschi Wilks, A.M. Betti, E. Chandhakhan, London/UK

16:21
B-0499 Efficacy of bilateral uterine artery embolization as a first-line therapeutic option for acquired uterine arteriovenous malformations

14:00–15:30 Room P
Interventional Radiology

SS 609b Gynaecological and obstetric interventions
Moderators: P. Andersen, Odense/DK, R. Nijenhuis, Maastricht/NL

14:00
B-0490 Non-invasive treatment of uterine fibroids using MR-guided high-intensity focused ultrasound: results on quality of life, non-perfused volume ratio and size reduction over 12 months
F. Cinga, A. Napoli, B. Cavalli Maricola, F. Boni, F. Zaccagnia, V. Nocce, L. Bertacchini, C. Catalano, Rome/IT

14:09
B-0491 MRI-guided focused ultrasound treatment of symptomatic uterine fibroids: impact of technology advancement on ablation volumes in 115 patients
C.G. Trumm1, T.A. Heusner1, P. Heusch1, V. Hartung-Knemeyer2, K. Beiderwellen2, K.J. Beiderwellen1, T.D. Poeppel1, V. Hartung-Knemeyer1, C. Buchbender2, T.A. Heusner1, C. Buchbender1; 1Düsseldorf/DE, 2Essen/DE

14:18
B-0492 Efficacy of MRI-guided focused ultrasound (MRgFUS) treatment of uterine fibroids: evaluation of non-perfused volume (NPV), fibroid shrinkage and clinical improvement at 6-month follow-up
I. Invernizzi1, M. Varini1, P. Colombo1, F. Zucconi1, S. Sironi1, C. Tora2; 1Milan/IT, 2Monza/IT

14:27
B-0493 Uterine adenomyosis treated by MRgFUS: technical approach and clinical results
F. Ferrari, A. Miccoli, F. Arrigoni, V.A. Giordano, E. Fascetti, G. Mascaretti, F. Zaccagna, A. Napoli, B. Cavallo Marincola, F. Boni, F. Ciolina; 1Monza/IT, 2Milan/IT

14:36
B-0494 Is uterine artery embolisation in large sized myoma as efficient as in normal sized myoma: a retrospective comparative study in 263 patients
I. Choi1, G. Jeon2, M. Kinn1, J. Lee1, J. Yoon1, S. Hwang1; 1Seongnam/KR, 2Seoul/KR

14:45
B-0495 Usefulness of pelvic artery embolisation: a comparison between caesarean section and vaginal delivery in 176 patients
M. Lee1, G. Jeon2; 1Seongnam/KR, 2Seoul/KR

14:54
B-0496 Transarterial embolization in the treatment of postpartum haemorrhage
Z. Wang, X. Li, Z. Jin, Beijing/CN
B-0507 Diagnostic accuracy of 11C-choline PET (CHO-PET) in patient affected by hepatocellular carcinoma (HCC): comparison with CT/MRI
E. Lopci, G. Torzilli, A. Palmisano, M. Scorsetti, A. Chiti, Rozzano/IT

B-0508 PIB-PET as a pathological and functional marker in Alzheimer’s disease
V. Abreu1, A. Nordberg2; 1Lorenskog/NO, 2Stockholm/SE
SS 911  New insights into brain gliomas
Moderators: L.C. Tzianabos, Ioannina/GR, P. Vieira, Almada/PT

10:00  Data-driven grading of brain gliomas: a multiparametric MRI study
V. Panera, D. Tortora, P. Mattei, S. Salice, C. Bignotti, A. Cotroneo, A. Tartarini, M. Cauda, Cervia/IT

10:10  Combining diffusion kurtosis imaging, dynamic susceptibility-weighted MR imaging and short echo time chemical shift imaging for grading gliomas

10:20  Dynamic contrast-enhanced (DCE) MRI of cerebral gliomas: assessment of tumoral angiogenesis with low gadolinium-based contrast agent dose
D. Pardos, E. Mazzoni, M. Moretti, S. Chiu, G. Giardino, Perugia/IT

10:30  Correction of CBV perfusion maps from T1 leakage effect allows a better correlation of perfusion DSC MR imaging with histopathologic glioma grading and an estimation of vascular permeability

10:40  Paradoxical imaging features of high-grade gliomas: assessment of biexponential and stretched-exponential model in grading cerebral gliomas
L. Sunwoo, S. Choi, T. Kim, H. Kim, J. Choi, Incheon/KR

10:50  Survival predictive value of perfusion-weighted MRI relative cerebral blood volume (rCBV) in glioblastoma multiforme adjusted by multiple biomarkers including MGMT promoter methylation

11:00  Additive value of arterial spin labeling in survival predictive value of perfusion-weighted MRI relative cerebral blood volume (rCBV) in glioblastoma multiforme: an observer performance study

11:10  Glioma grading using pharmacokinetic parameters in T1-weighted dynamic contrast-enhanced perfusion MR

11:20  Intravoxel incoherent motion MR imaging with biexponential and stretched-exponential model in grading cerebral gliomas
Y. Bab, G. Shi, S. Dou, P. Sun, M. Wang, Z. Zhengzhou/CHN, Beijing/CHN

11:30  Apparent diffusion coefficient obtained by magnetic resonance imaging as a prognostic marker in glioblastomas: correlation with MGMT promoter methylation status
L. Calandra, J. Rossi, Espanyart, T. Tawani, A. Boeltz, V. Coppola, M. Federici, A. Romano, L. Fantot, A. Botta, Rome/IT, Romeglioma/IT

SS 904  Image quality and dose reduction
Moderators: P.A. Grenier, Paris/FR, J. Vlahos, London/UK

10:30  Clinical evaluation of an automatic tube voltage selection in chest CT angiography

10:40  Phantom study for adaptive iterative dose reduction using different scanning methods

10:50  Evaluation of an iterative reconstruction algorithm (iDose) to reduce image noise and improve image quality in submillisievert CT scans of the thorax
K. Markstaller, G. Szabo, H.-U. Kauczor, Vienna/AT

11:00  Effect of acquisition parameters and reconstruction algorithm on lesion conspicuity in low-dose MDCT of the thorax
M. Hennig, A.A. Fingerle, C. Markus, T. Zehet, P.S. Noel, E. Runshney, M. Dobritz, Munchen/DE

11:10  Evaluation of an iterative reconstruction algorithm (iDose) to reduce image noise and improve image quality in submillisievert CT scans of the thorax
M. Hennig, A.A. Fingerle, C. Markus, T. Zehet, P.S. Noel, E. Runshney, M. Dobritz, Munchen/DE

11:20  Phantom study for adaptive iterative dose reduction 3D (AIDR 3D) for low-dose chest CT examination: utility for identification of pulmonary ground glass opacity and nodule on 320-detector row CT using different scanning methods

11:30  The lateral scan projection radiograph (topogram) in CT pulmonary angiography: the effect on scan length and radiation dose
Interventional Radiology

SS 909 Thoracic interventions


10:30
B-0529 CT-guided lung biopsy: core needle coaxial technique with autologous blood needle tract embolisation compared with fine needle aspiration in diagnostic yield and post-biopsy pneumothorax rate
T. Lee, A. Montasser, L. Nando, J.R. Helme1, R.A. Aronson1
1San Francisco, CA/US, 2Canton, OH/US

10:39
B-0530 Computed tomography-guided trans-thoracic fine needle aspiration biopsy of pulmonary nodules
C. Floridi, F. Fontana, A. Ferardi, G. DeMarchi, C. Pellegrino, C. Floridi, F. Fontana, A. Ierardi, T. Geith1, A. Biffar1, G. Schmidt1, S. Sourbron2, H.R. Duerr1, M.F. Reiser1, A. Baur-Melnyk1
1Munich/DE, 2Mannheim/DE, 3Erlangen/DE

10:48
B-0531 C-arm cone-beam computed tomography (CBCT) needle path overlay for percutaneous biopsy of pulmonary nodules

10:57
B-0532 Computed tomography-guided trans-thoracic fine needle aspiration biopsy of pulmonary nodule: pulmonary haemorrhage, complication or advantage?
M. De Filippo, L. Saba, C. Concari, C. Rossi, Parma/IT

11:06
B-0533 Feasibility and safety of CT-guided percutaneous radiofrequency, microwave or cryoablation of the pulmonary and mediastinal unresectable tumours adjacent to the heart and large vessels
C. Pusceddu, L. Melis, G. Meloni, Cagliari/IT

11:15
B-0534 Factors influencing local tumour control in patients with neoplastic pulmonary nodules treated with microwave ablation (MWA): a risk factor analysis
T. Lee, T.S. Worm, N.A. Naqib, N.E.A. Nour-Eldin, Frankfurt a/M, DE

11:24
B-0535 Percutaneous microwave ablation of lung tumours
C. Pusceddu, L. Melis, G. Meloni, Cagliari/IT

11:33
B-0536 MRI chest parameters used in the assessment of tumour response post microwave ablation of pulmonary metastases
N.E.A. Nour-Eldin, N.A. Naqib, T. Gruber-Rohr, T. Lehner, M. Sadeqi, T.J. Voigt, Frankfurt a/M, DE

11:42
B-0537 Transpulmonary chemoembolisation (TPCE) and transpulmonary chemoperfusion (TPCP) as a treatment for unresectable primary and secondary lung tumours: local tumour control and survival
T. Lee, A. Muller, S. Zangis, T. Lehner, Frankfurt a/M, DE

Musculoskeletal

SS 910 Spine: advancing the use of CT and MRI

Moderators: P.M. Cunningham, Navan/IE, J. Labuscagne, Bunbury, WA/AU

10:30
B-0539 Cervical nerve root infiltration under CT and MRI guidance: a cost comparison
M. Maurer, M. deBucourt1, T. Hartwig, B. Hamm, F. Streiptharp, Berlin/DE

10:39
B-0540 Fast inner volume imaging of the lumbar spine with a zoomed SPACE sequence using parallel transmit
P. Omoumi, T. Kanerzjeszczak1, D. Paul2, S.O. Schönberg2, M. Michael2
1Mannheim/DE, 2Erlangen/DE

10:48
B-0541 The importance of ispection of true FISP sequences during MRI of the lumbar spine
M. Papavasilopoulou, M. Raissaki, C. Voulgaris, A. Karantanas, Iraklion/GR

10:57
B-0542 Computed tomography of the cervical spine: comparison of image quality between standard-dose filtered back-projection and low-dose iterative reconstruction protocols
P. Becot, Y. Ben Salah1, F.R. Verdun, B.C. Vande Berg2, F.E. Lecouvet1, R. Meul1, P. Omoumi1, Lausanne/CH, Brussels/BE

11:06
B-0543 Imaging quality of reduced radiation dose lumbar spine CT with iterative reconstruction
C.-J. Lin, S. Hong, W. Gao, T. Wu, Taipei/TAI

11:15
B-0544 Multidetector computed tomography of the cervical spine: optimisation of iterative reconstruction strength levels
P. Omoumi, F.R. Verdun, Y. Ben Salah1, B.C. Vande Berg2, F.E. Lecouvet1, R. Meul1, F. Becot1, Brussels/BE, Lausanne/CH

11:24
B-0545 Relationship among facet joint fluid (FJF) at MRI, age, and disk degeneration in patients affected with low back pain
C. Ottolieri1, A. Gardoni1, G.D.E. Papini3, A. Sharipova3, G. Di Leo3, F. Sardanelli3, S. Sourbron2, H.R. Duerr1, M.F. Reiser1, A. Baur-Melnyk1
1Munich/DE, 2Mannheim/DE, 3San Donato Milanese/IT

11:33
B-0546 Typification of posterior instability in patients with spondylosis or isthmic spondylolisthesis
P. Nigenda1, J.-F. Kuchta1, H. Oberich, H.H. Schatz1, Mannheim/DE, 2Bonn/DE

11:42
B-0547 Differentiation of benign and malignant vertebral body fractures with dynamic contrast-enhanced MRI
T. Geith1, A. Biffar1, G. Schmidt1, S. Soutar3, H.R. Duerr1, M.F. Reiser1, A. Baur-Melnyk1
1Mannheim/DE, 2Bonn/DE, 3Munich/DE

11:51
B-0548 Trabecular bone structure analysis of the spine using clinical MDCT: can it predict vertebral bone strength?
T. Baum1, M. Grabebinger1, E. Grande Garcia1, R. Burghart1, J. Patsch1, E. Jochim-Men3, T.M. Link1, J.S. Bauer1, 1Munich/DE, 2Vienna/AUT, 3San Francisco, CA/US
Oncologic Imaging

**SS 916 Whole-body imaging: how to do it**
Moderators: T.F. Ham, Zurch/NL, D.M. Lambrechts, Maastricht/NL

10:30

**B-0549** Cross over PET/MRI vs PET/CT study in oncological patients: does it change management?  
J. Al-Khalili, K. Alnabahi, A. Maq, R. Syed, C. O’Meara, A. Barnes, J. Bouman,  
London/UK

10:39

**B-0550** Whole body magnetic resonance imaging, including diffusion-weighted imaging, for staging malignant lymphoma: comparison to computed tomography in 135 patients  
T.C. Passe, M.A. Vermooren, E.A. Aekermann, M. Kensten, R. Frijns,  
P.J. Boek, M.S. van Leeuwen, M.B. Bierings, R.A.J. Nievelstein, Ulrecht/NL

10:48

**B-0551** Combination of continuously moving table MRI and PET including image fusion: improved lesion detection in local and distant recurrence of rectal cancer  
T. Bouman, A.-D. Schäfer, M. Lange, Freiburg/DE

10:57

**B-0552** Does positron emission tomography data acquisition impact simultaneous diffusion-weighted imaging in a whole body PET/MRI system?  

11:06

**B-0553** Standardised uptake values for [18F]-FDG in normal organ tissues: comparison of whole body PET/CT and PET/MRI  

11:15

**B-0554** Impact of FDG PET-CT on patient management and radiotherapy treatment planning in locally advanced cervical carcinoma  
S. Deeren, R. Cooper, S. Smith, F. Chowdhry, A. Scarrbrook, C. Patel, Leeds/UK

11:24

**B-0555** Is there a role for standard uptake value in the prognostic evaluation of lung nodules?  
A. Balzetti, S. Broghi, G. Pezzini, V. Ambrosini, S. Asciano, G. Battista, S. Fanti, Udine/IT

11:33

**B-0556** Detection of underlying malignancy in patients with paraneoplastic neurological syndromes: comparison of 18F-FDG-PET/CT and contrast-enhanced CT  

11:42

**B-0557** FDG-avid duodenal lesions: a retrospective analysis of their significance in oncology practice  
S. Pies, L. Jones, J. Strachan, Rochester/WF/US

11:51

**B-0558** Feasibility and first clinical experiences with simultaneous PET/MRI imaging of cervical cancer: comparison of image quality with MRI and PET/CT  

B-0559 – B-0568

Breast

**SS 902 Increased risk of breast cancer**
Moderators: L.A. Carbonaro, San Donato Milanese/IT, L. Olivier, Paris/FR

10:30

**B-0559** Individual radiosensitivity: a key-issue to reconsider high breast cancer risk patient screening modalities  
C. Talor, N. Foray, F. De Vathaire, M. Bourguignon, P.-J. Valette, P.-M. Berland, Villejuif/FR, Lyon/FR, Vilnius/FR, Paris/FR

10:39

**B-0560** Which screenings program should be offered to women with BRCA1 or BRCA2 mutations? A simulation of comparative cost-effectiveness  

10:48

**B-0561** MRI of hereditary breast cancer: can hyper T2 signal intensity be considered as a new semeiotic parameter of higher aggressiveness?  
G. Trecate, R. Agresti, S. Viganò, L. Stumani, D. Verghet, C. Ferranti, M. Marchesini, S. Scaparrotta, P. Panizza, Milan/IT

10:57

**B-0562** Fully automated MRI breast density (BD) measurement: comparison to standard mammographic density estimation  
G.J. Wengert, W.-D. Voigt, T.H. Helbich, H. Bickel, W. Bouger, K. Pinker-Domenig, Vienna/AUT

11:06

**B-0563** Fully automated quantitative MRI breast density (BD) measurement confirms higher breast density in breast cancer patients  
P.J. Parker, G.J. Wengert, H. Bickel, H.F. Maqamat-Schipp, M. Curda, T.H. Helbich, Vienna/AUT

11:15

**B-0564** To excise or not to excise? Management of high-risk breast lesions in a symptomatic population  

11:24

**B-0565** The diagnostic value of 3 Tesla breast MRI in the diagnosis of in situ and invasive breast cancer  

11:33

**B-0566** Positive enhancement integral values in diagnostic magnetic resonance imaging of breast carcinoma: ductal carcinoma in situ (DCIS) vs invasive ductal carcinoma (IDC)  
M.M. Nadrljanski, O.S. Radulovic, Z.C. Milosevic, Belgrade/RS

11:42

**B-0567** DCIS at image-guided needle biopsy: can breast MRI pre-operative predict invasivity?  
M. Marcon, V. Bertani, P. Clauser, E. Di Gaetano, V. Londero, A. Linda, R. Grometti, C. Zuan, M. Bazzocchi, Udine/IT

11:51

**B-0568** Breast dynamic MRI in patient with DCIS: percutaneous biopsy diagnosis: are different grades associated with local and distant recurrence of rectal cancer  
T. Laenenstein, A.-D. Schäfer, M. Lange, Freiburg/DE

11:57

**B-0569** Detection of underlying malignancy in patients with paraneoplastic neurological syndromes: comparison of 18F-FDG-PET/CT and contrast-enhanced CT  
**Abdominal Viscera**

**SS 901 Cross-sectional pancreatic imaging and biomarkers**

10:30

**B-0570** Dynamic contrast MR imaging of the pancreas under free breathing in combination with navigator technique


10:39

**B-0571** Diffusion-weighted magnetic resonance imaging of healthy pancreas: to study to investigate the effect of age on apparent diffusion coefficient values

- T. Takahashi, C. Pan, H. Zhang, W. Wang, J. Wang, S. Chen, J. Lu, Shanghai/CN

10:48

**B-0572** Pancreatic cystic lesion fluid content virtual analysis by means of acoustic radiation force impulse (ARFI) ultrasound imaging: fact or fiction?

- S. Canestrini, M. D’Onofrio, R. De Robertis, S. Crosara, E. Demozzi, G. Puntel, R. Pozzi Mucelli, Verona/IT

10:57

**B-0573** Role of perfusion CT in the evaluation of pancreatic masses

- R. Vassallo, M. Kang, R. Gupta, D. Bhosle, S. Rana, R. Handelwal, Chandigarh/IN

11:06

**B-0574** Comparison between CT and CEUS in the diagnosis of pancreatic adenocarcinoma

- S. Crosara, M. D’Onofrio, R. De Robertis, S. Canestrini, R. Pozzi Mucelli, Verona/IT

11:15

**B-0575** High-resolution diffusion-weighted imaging of pancreatic ductal adenocarcinoma using 2D reduced field of view single-shot echo planar imaging at 3.0 Tesla

- C. Ma, Y. Li, H. Wang, S. Chen, J. Lu, Shanghai/CN

11:24

**B-0576** Imaging features of acinar cell cystadenoma: can we differentiate them from branch duct IPMNs?

- C. Delavault, G. D’Assignies, J. Cros, P. Ruzickovski, P. Hammel, C. Delavaud, V. Vilgrain, M.-P. Vullierme

11:33

**B-0577** Diffusion-weighted 3T MR imaging with b-multiple SE-EPI in the differential diagnosis of cystic pancreatic lesions


11:42

**B-0578** Cystic fibrosis in juveniles and adults: association of fatty involution of the pancreas at MDCT with CFTR genetic mutation and insulin-dependent diabetes mellitus


11:51

**B-0579** Pancreatic atrophy in β-thalassaemia population: morphological MR evaluation and correlation with pancreatic functional parameters

- C. Liapi, F. Pitrone, I. Di Giammatteo, P. Giaccone, B. Besmonte Zobel, Rome/IT
**Paediatric**

**SS 912 Paediatric body and bones**

**Moderators:** K.J. Johnson; Birmingham/UK, L. S. Ording-Müller; Tromsø/NO

**10:30**

**B-0590** Accuracy of ultrasound using a computerised technique to evaluate nonalcoholic fatty liver disease in obese and eutrophic adolescents as compared with MRI

**J.H.R.N. Nascimento, R.B.S. Soder, M.E. Epifanio, M.B. Baldisserotto; Porto Alegre/BR**

**10:39**

**B-0591** Can ultrasonography reliably differentiate between ileo-colic and small bowel intussusception?

**N. Simanovsky, A. Arnon, J. Arnon, D. Weitzman; Tel Aviv/IL**

**10:48**

**B-0593** Early-stage disease activity of the wrist in juvenile idiopathic arthritis: assessment with MRI in a pilot study

**C.M. Nusman, M. de Tiel, H. de Haan, L. van der Wurff, J.J.M. van der Linden, P. de Bleeckere, M. Maas; Amsterdam/NL**

**10:57**

**B-0594** Clavicle radiographs in children: a waste of time and radiation?

**M.R. Jackson, M.-P. Lirette, P. Leonard; Edinburgh/UK**

**11:06**

**B-0595** A follow-up study of a delayed approach to managing developmental hip dysplasia (DDH)

**L. Woods, M. Khalil, A. Witwit, S. Manickam, V. Cook; London/UK**

**11:15**

**B-0596** Value of lower-limb MRI in the staging and re-staging of post-treatment osteonecrosis in paediatric patients with lymphoproliferative disease

**A. Morello, G. Ippolito, P.A. Bonsaffre, L. Lorengi, A. Sala, A. Rovelli, S. Simoni; Milan/IT**

**11:24**

**B-0597** Painful paediatric hip: frog-leg lateral view only!

**J. Bonner, F. Kien, H.C. Holchser, Den Haag/NL**

**11:33**

**B-0598** DXA as a key instrument for the evaluation and the follow-up of adolescents affected by anorexia nervosa

**F. Faccetti, G. Farcinini, E. Di Pietro, F. Moscato, L. Tero, E. Franzoni, G. Battiata, A. Bazzocchi; Bologna/IT**

**11:42**

**B-0599** Replacing conventional spine radiographs with dual-energy X-ray absorptiometry (DXA) in children with suspected reduction in bone density

**E. Adelstam, L. Summen, P. Bradle, J. Lang, G. Morrison, A. Offiah; Sheffield/UK**

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**Radiographers**

**SS 914 Dose optimisation as daily challenge**

**Moderators:** P. Blackburn Andersen; Kolding/DK, A. Petakovic; Novo Mesto/SI

**10:30**

**B-0600** Estimating organs cancer incidence related to patient radiation exposure following PCI for acute and chronic coronary total occlusion

**D. Maccagni; Milan/IT**

**10:39**

**B-0601** Project retake: quality assurance of radiation hygiene by maintaining image quality

**S.M. Khan; Oslo/NO**

**10:48**

**B-0602** Implementation of a quality control program in a radiology department


**10:57**

**B-0603** Assessment of radiological imaging conformities based in quality control charts


**11:06**

**B-0604** A review of diagnostic imaging frequency to aid research exploring the issue of consent for higher dose paediatric examinations

**J.L. Portelli, J. McNulty, S. Mohan, P. Bezzina; Msida/MT, L. Rainford; Dublin/IE**

**11:15**

**B-0605** An approach for Portuguese diagnostic reference levels for bedside chest radiography

**A. Sousa, S. Sarom, S. Santos, G. Paulo; Coimbra/PT**

**11:24**

**B-0606** An investigation into the relationship between the exposure index value and image quality

**M.L. Butler, L. Rainford; Dublin/IE**

**11:33**

**B-0607** Attenuation of anode heel effect with an aluminum filter and their influence on patient dose in lumbar spine radiography


**11:42**

**B-0608** Antero-posterior (AP) pelvic radiography: collimator errors and their effects on radiation dose

**H. Brookfield, A.S. Manning-Stanley; Liverpool/UK, Salford/UK**

**11:51**

**B-0609** Breast shielding significantly reduces breast dose during lumbar spine radiography

**N. Mekiš, D. Žontar, D. Škrk; Ljubljana/SI**
10:30 – 12:00 Room Z

Computer Applications

SS 905 Computer-aided diagnosis
Moderators: T. Manz, Vienna/AT, D. Regge, Turin/IT

10:30

B-0610 Automated characterization of pulmonary nodules in thoracic CT images using a segmentation-based classification system
C. Jacobs1, E.M. van Rikxoort2, J.-M. Kuhnigk1, E.T. Scholten3, P.A. de Jong4, C. Schaefer-Prokop5, M. Prokop2, B. van Ginneken2; 1 Bremen/NL, 2 Nijmegen/NL, 3 Haarlem/NL, 4 Utrecht/NL, 5 Amersfoort/NL

10:39

B-0611 Semiautomatic estimation of right ventricular parameters from MR images: a new stereological approach
M. Mazonakis, K. Paepenides, C. Varveris, J. Damilakis; Iraklion/GR

10:48

B-0612 Automated computerized software for diameter and volume measurements of pulmonary metastatic disease: preliminary evaluation
E. Lotan, D. Aharoni, S. Raskin, B. Boursi, R. Berger, E. Konen; Ramat Gan/IL

10:57

B-0613 Computerised morphological estimation of sex and age – from subjective investigation to computer-assisted analysis
A. Vlcek, F. Kanz, W. Weninger, J. Streicher, D. Rosser, F. Kanberger; Vienna/AT

11:06

B-0614 Semiautomatic evaluation of quantitative pharmacokinetic parameters – systematic evaluation of a new CAD-tool and evaluation of clinical performance at high field 3T MRI
M. Dietzel, A. Dörfler; Erlangen/DE

11:15

B-0615 Rapid semi-automated volumetry of pleural effusion in MDCT
M.P.F. Botelho, F.D. Gonzalez-Guindalini, H. Chalian, V. Yaghmai; Chicago, IL/US

11:24

B-0616 Software-supported evaluation of small-bowel motility using free-breathing cine MRI
R. Acharia2, M. Anzidei3, M. Piga1, J.S. Suri1, Caglioni/IT, Singapore/SG, Rome/IT, Piscataway, NJ/US

11:33

B-0617 Automated system for CT carotid plaque characterisation into symptomatic and asymptomatic classes
L. Saba1, U. Acharia2, M. Anzidei3, M. Piga1, J.S. Suri1, Caglioni/IT, Singapore/SG, Rome/IT, Piscataway, NJ/US

11:42

B-0618 Automated labelling framework applied on full and partial spine CT scans
D. Major, J. Hladuvka, F. Schulze, K. Bühler; Vienna/AT

11:51

B-0619 Segmentation-free scheme for computer-assisted image interpretation: application to CT colonography
F. Chandelier1, T. Cabrera2, P. Kocsis1, L. Stein2, V. Demers2; 1 Granby, QC/CA, 2 Montreal, QC/CA

246
Oncologic Imaging

SS 1316 Rectal cancer imaging: the next step
Moderators: L. Curvo-Semedo, G. Beets, K. Hoeffel, R. Reins/FR

10:30 B-0620 Predictive value of combined quantitative parameters obtained with ADC map and 18-FDG/PET study in assessment of treatment response of patients with advanced rectal cancer: histopathologic correlation
D. Ippolito, A. Cadonici, C. Trattenero, L. Monguzzi, C. Capraro, S. Sironi; Monza/IT

10:39 B-0621 Intrinsic gradient of the vascular function in rectal tumours

10:48 B-0622 Enhanced vascular structure and function in the tumour-surrounding mesorectum: potential risk factors for patients with rectal cancer

10:57 B-0623 Value of 3D FSE Cube sequence at 3T MRI in preoperative local staging of rectal cancer

11:06 B-0624 Prediction of subsequent metastatic disease by dynamic contrast MRI in locally advanced rectal cancer
E.M. Anderson, J.M. Franklin, L. Tanner, M. Brady, V.G. Gleeson; Oxford/UK

11:15 B-0625 Features on MRI after transanal endoscopic microsurgery in patients with rectal cancer

11:24 B-0626 Role of perfusional MRI and DWI to predict pathological complete response to neoadjuvant chemoradiation therapy in rectal cancer
C.N. De Cecco, M. De Cecco, M.M. Maceroni, M. Muscioggiuri, M. Laghi, Rome/IT

11:33 B-0627 Additional value of diffusion-weighted (DWI) MRI for predicting complete tumour response (T0R0) in rectal cancer treated with neo-adjuvant chemoradiation (CRT)
T. Steiner, H. Hagenauer, M. Renner, M. Karner, F. Doyan, S.D. Schönberg, U.I. Attenberger; Graz/AUT

11:42 B-0628 Advanced characterisation of rectal cancer prior surgery: preliminary results on the evaluation of multimodality functional MRI techniques in correlation to histopathology
M. Sannene, B. Bouter, P. Kienle, F. Doyan, S.D. Schönberg, U.I. Attenberger; Graz/AUT

11:51 B-0629 ColoCare: compartmental quantification of obesity on CT as risk factor for colorectal cancer

Chest

SS 1304 CTPA techniques in lung perfusion and pulmonary hypertension
Moderators: I. Hartmann, Rotterdam/NL, J. Stern, Seattle, WA/US

10:30 B-0630 Impact of iterative reconstructions on the diagnosis of acute pulmonary embolism (PE) on low-dose CT angiograms: clinical experience in 53 patients

10:39 B-0631 Comparison of image quality and radiation dose between 64-MDCT and high pitch 128-DSCT protocols in triple rule-out studies
A. Fernandez del Valle, C. Delgado, R. Oca, N. Silva, G. Tardaguila Vigo/ES

10:48 B-0632 Sinogram-affirmed iterative reconstructed simulated ECG-gated ultra high pitch CT pulmonary angiography in the acute setting: effect on dose and image quality
S.J. Co1, S. Nicolau1, J. May1, T. Li1, D. Hou1, M. Krzyźny2, Vantouer, BC/CA, Topanga, CA/US

10:57 B-0633 70 kV CT pulmonary angiography in clinical routine: initial experience, radiation dose and image quality
R.W. Bauer1, F. Al-Butmeh, F. Deren, S.F. Theure, C. Neumair, H. Kupatt, M. Reiser, T.R.C. Johnson; Munich/DE

11:06 B-0634 Automated quantification of pulmonary perfused blood volume in acute pulmonary embolism using dual-energy CTPA
P.J. Kemp1, A. Graef, J. Führer, F. Deren, S. Kurz, H. Neumann, C. Kupatt, M. Reiser, T.R.C. Johnson; Munich/DE

11:15 B-0635 Dual-source CT perfusion maps: do they increase the diagnostic confidence in the diagnosis of pulmonary embolism by CTPA?
E. Bähring1, S. Schier1, H. Prosch, C. Neumair, K. Dinsinger, M. Weber, G. Moshbeck; Vienna/AUT

11:24 B-0636 CT-pulmonary angiography follow-up in acute pulmonary embolism: resolution of emboli and change of CT signs of right heart dilatation and pulmonary hypertension

11:33 B-0637 Clinical significance of high density thrombi on non-enhanced CT scan in patients with pulmonary thromboembolism
K.S. Beck, B. Lee, H. Kim, D. Han; Seoul/KOR

11:42 B-0638 Automated quantification of pulmonary perfused blood volume by dual-energy CTPA in chronic thromboembolic pulmonary hypertension
F.O. Meiner1, A. Graef, M. Ambroschen, C. Neumair, M.F. Reiser, T.R.C. Johnson; Munich/DE

11:51 B-0639 Non-invasive diagnosis of pulmonary hypertension with dynamic contrast-enhanced computed tomography
M. Bezdek1, N. Kvaček1, M. Tscherner1, T.R.C. Johnson1, P. Kullnig1, R. Stollberger1, A. Bílek1, H. Schöfke1, Z. Bilit1; Graz/AUT, Munich/DE
B-0640 Selective arterial embolisation for bone tumours
G. Rossi, E. Rimondi, A. Mastrogiosi, A. Andreone, P. Spinnoto, G. Garzillo, P. Ruagge, B. Vanel, A. Bazzocchi; Bologna, Italy

B-0641 Radiofrequency ablation of osteoid osteoma: technique with special tricks for difficult anatomical locations and atypical nidus
A. Lami, B. Jankinharia, A. Pilama, P. Thakrar, Mumbai, India

B-0642 Osteoid osteomas of the elbow: a challenging location
A. Bazzocchi, G. Pacchetti, G. Bettelli, E. Castiello, M. Cavicchiocci, R. Rotini, U. Albisinni, Bologna, Italy

B-0643 MR-guided high-intensity focused ultrasound for non-invasive treatment of osteoid osteoma
M. Anzidei, A. Napoli, D. Brachetti, B. Cavallino Maniccia, G. Cartocci, F. Bori, V. Noce, L. Bertaccini, C. Catalano, Rome, Italy

B-0644 MR-guided focused ultrasound ablation on bone metastases: role of dynamic contrast-enhanced MRI in the evaluation of treatment response
A. Napoli, V. Noce, M. Anzidei, F. Bori, G. Brachetti, G. Cartocci, L. Bertaccini, C. Catalano, F. Collina, Rome, Italy

A. Napoli, G. Brachetti, D. De Oliveira, G. Cartocci, F. Bori, V. Noce, L. Manuccio, V. Tombolini, C. Catalano, Rome, Italy

B-0646 Percutaneous laser ablation of metastatic lymph nodes in the neck from papillary thyroid carcinoma: 1-year results
G. Massi, T. Tonandi, L. Covai, T. Ierace, N.S. Goldberg, L. Solbiati; Azienda USL 97, Jerusalem, Italy

B-0647 Arterial spin labelling (ASL) MRI for monitoring kidney perfusion before and after renal denervation: initial results
C. Schlesch, D. Blöndin, P. Kripol, D. Vonend, P. Heusch, H.-J. Wittsack, G. Antoch, R.S. Lehmann; Düsseldorf, Germany

B-0648 Reliable and reproducible sampling of adrenal veins in the management of hyperaldosteronism, a technically demanding yet feasible procedure: an institutional experience
K.-M. Lee, H.L. Chow, S.H. Chiu, H.Y. Cho, S. Lau, Hong Kong

Musculoskeletal
SS 1310 Arthritis and metabolic bone disease
Moderators: A.J. Grainger, Leeds, UK; A. Plagou, Athens, Greece

B-0650 Radiological peripheral involvement in a cohort of polyarticular juvenile idiopathic arthritis at adulthood
A. Pascolo, R. Bazeli, V. Freire, M. Elha, J. Wipf, C. Job-Deslandre, A. Kishan, L.-C. Chépe, Paris, France

B-0651 Monitoring of initial methotrexate therapy effect on cartilage composition in early rheumatoid arthritis with biochemical MRI of finger cartilage
C. Schnich, B. Disterdorf, C. Buchbinder, C. Nowak, P. Sewerin, M. Schneider, G. Rittfeld, A. Scherer, F. Miese; Düsseldorf, Germany

B-0652 Quantification of synovitis in the cranio-cervical region in early rheumatoid arthritis using dynamic contrast-enhanced (DCEI) and diffusion-weighted (DWI) magnetic resonance imaging (MRI)
M. Anzidei, V. Jevtic, M. Tomić, I. Psanec, J. Mankota, I. Serša, A. Ambroz1, I. Jovanja1, G. Jeromel1, V. Jevtic1, M. Tomsič1, I. Pisanec2, J. Markota1, I. Serša1, 1Busto Arsizio, Italy, 2Athens, Greece

B-0653 Slow radiographic progression of bone destruction in the hands in early psoriatic arthritis without correlation to clinical disease activity
M. Teng2, H. Lindqvist1, P. Hämmerle2, G. M. Alenius4, P. T. Larsson5, A. Teleman6, E. Theander7; 1Busto Arsizio, Italy, 2Athens, Greece, 3Munich, Germany, 4Lund, Sweden, 5Upplands Väsby, Sweden, 6Falun, Sweden, 7Stockholm, Sweden, Oakström, Sweden, 8Malmo, Sweden

B-0654 Role of dynamic MRI in predicting outcome of patients affected with early stage arthritis
C.A. Mantegazza1, L.M. Sterkenbol2, M. Cimmino2, G. Garlaschi2, G. Di Leo3, F. Sardanelli3, 1Milan, Italy, 2Genoa, Italy

B-0655 Association of trochleoid dysplasia with degenerative abnormalities in the knee: data from the osteoarthritis initiative
P.M. Jorgensen1, S.-C. Thom2, H. Leibl1, M. Nevitt3, C.E. McCulloch3, J. Lynch3, T.M. Link2; 1Munchen, Germany, 2Singapore, Singapore, 3San Francisco, USA

B-0656 Reliability of tomosynthesis for semiquantitative assessment of knee osteoarthritis features by radiologists with different levels of expertise
D. Hayashi1, L. Xu1, J. Guenba2, F.W. Roemer1, J. Lynch1, T.M. Link2; 1Munchen, Germany, 2Singapore, Singapore, 3San Francisco, USA, 4Sydney, Australia

B-0657 Scoring hip abnormalities using MR images (SHAMRI): a novel hip whole joint osteoarthritis evaluation initiative
A. Guermazi1, A. Plagou; 1Leeds, UK, 2Athens, Greece

B-0658 Cortical thickness mapping reveals effects of age, weight and osteophytes in the proximal femur
T.D. Tunnessen1, G.M. Treece, A.H. De, C.J. Tonkin, P.E.S. Posse, Cambridge, UK

B-0659 Multifocal endosteal thickening of the femur in patients on long-term bisphosphonate therapy presenting with atypical femoral fractures
M.A. Png, P.C. Mohan, J.S.B. Koh, T.S. Howe, Singapore, Singapore
10:30–16:00 Room E2

Cardiac

SS 1303 Towards improved image quality and detection
Moderators: G. Feuchtner; Innsbruck/AT; C. Herza; Munich/DE

10:30 B-0660 Stenosis quantification in coronary CT angiography: impact of an integrated circuit detector with iterative reconstruction

10:39 B-0661 CT coronary angiography: effect of iodine CONcentration on vascular attenuation. The CT-CON multicentric study preliminary results
M. Rengo, A.S. Dharampal, D. Caruso, K. Nieman, A. Laghi, G.P. Krestin, Frankfurt am Main/DE

10:48 B-0662 MDCT coronary angiography evolution of phasic critical stenosis in myocardial bridges
K. Maksimi, M. Tesza, G. Sala, A. Pozzaio, E. Baldin, P. Pozzi Mucelli, Verona/IT

10:57 B-0663 Quantitative CT coronary angiography: does it predict functionally significant coronary stenoses?

11:06 B-0664 Impact of iterative CT image reconstruction on calcium score measurements

11:15 B-0665 Accuracy of prospectively ECG-triggered ultra low-dose coronary dual-source CT angiography using iterative reconstruction

11:24 B-0666 Influence of iterative reconstruction on coronary calcium score in cardiac computed tomography
P. Jaspert, J.A.C. van Osch, M. Groen, M.J.W. Greuter, Groningen/NL, Zwolle/NL

11:33 B-0667 Magnetic resonance velocity mapping-based evaluation of elevated mean pulmonary arterial pressure: the impact of visualisation techniques
H. Rivard, G. Reiter, B. Kovacs, A. Stalder, M.A. Gulino, A. Greiser, H. Olschewski, M.H. Fuchsjaeger, Graz/AT, Erlangen/DE, Princeton/NJ, USA

11:42 B-0668 Undersampled real time cine SSFP with through-time radial GRAPPA: evaluation of RV function in breath-hold and free breathing
B.J. Windelspeerger, A. Pelov, G. Bastani, M.A. Griswold, N. Seiberlich, M. Sussman, Toronto, ON/CA, Cleveland, OH/US

11:51 B-0669 Diagnostic accuracy of delayed phase dual-energy CT for the detection of chronic myocardial infarction compared to 3-T MRI late gadolinium enhancement
J.L. Wuhlmann, J.M. Kerl, T. Lehnter, M. Doss, T.J. Vojl, R.W. Bauer, Frankfurt am Main/DE

10:30–16:00 Room F1

Neuro

SS 1311 Brain tumours: imaging and therapy
Moderators: X. Golay; London/US; A. Zimny; Wroclaw/PL

10:30 B-0670 Intra-arterial ophthalmic artery chemotherapy for group D retinoblastoma in children: 4-years Lausanne experience
S. Buxton, J.B. Zerlauth, M. Beck-Popovic, P. Munier, R. Meuli, Lausanne/CH

10:39 B-0671 Neurocutaneous melanosis in children with giant congenital melanocytic nevi

10:48 B-0672 Surveillance neuroimaging in patients with medulloblastoma should include diffusion-weighted imaging
L. van den Hauwe, C. Gidding, E. van Lindert, P. Wesseling, B. Goraj, Nijmegen/NL

10:57 B-0673 Preoperative evaluation of consistency of meningiomas: diagnostic efficacy of MRI

11:06 B-0674 Radiation-induced telangiectasia in the long-term survivors of intracranial germ cell tumours: whole-ventricle vs whole-brain radiation

11:15 B-0675 Dynamic sequences in Intraoperative MRI during transsphenoidal resection of pituitary adenomas: quantitative analysis
M. Rosi Espagnet, A. Boeltz, V. Coppola, A. Romano, S. Pugliese, F. Ivanelli, E. Caizzi, L. Fantozzi, B. Russo, Rome/IT, Roncoligio/I

11:24 B-0676 Preoperative classification of cerebral tumours by applying whole brain VPCT: which parameter to use in order to achieve the highest prognostic value?

11:33 B-0677 Apparent diffusion coefficient in determination of histological subtype of meningioma
D.A. Kipriotis, Nijmegen/NL

11:42 B-0678 Evaluation of diffusivity in pituitary adenoma in the Sella Turcica with 3D turbo field echo with diffusion-sensitized driven-equilibrium preparation: initial experience
**Scientific Sessions**

### Breast

**SS 1302** How to get more from breast imaging modalities

Moderators: N. Hoostmans, Sydney/AU, M. Nadjafi, Belgrade/RS

10:30

**B-0679** Magnetic resonance imaging of fibroadenomas in the female breast: new insights on dynamic and morphologic profiles and differential diagnosis from malignant breast lesions

M. Gross1; P.A.T. Baltzer1, W.A. Kaiser2, K. Wasser1, S.O. Schönberg1, W.A. Kaiser3; 1Vienna/AT, 2London/UK

10:39

**B-0680** Texture analysis of malignant breast tumours: is a differentiation of ductal carcinoma in situ, invasive ductal and invasive lobular breast cancer possible?

T. Rossetti1, P. Pinker-Drusina2, N. Ferry2, S. Milner2, R. Mokbel1, M.E. Mayrhofer1; 1Vienna/AT, 2London/UK

10:48

**B-0681** Variation of apparent diffusion coefficients (ADC) measured in the normal breast using diffusion-weighted MR mammography: effects of menopausal status, anthropometric measures and hormone intake

K. Hagenesch1, R. Schopf1, R. Luqa1, C.O. Schmidt1, H. Volcke1, K. Hosten1, B. Mensel1, Greifswald/DE

10:57

**B-0682** Second-look US with MR volume navigation (V Nav) of breast lesions: a way to make it objective

A. Pozzi1, F. Mercutti1, L. Matteis1, L. Volterrani1; 1Siena/IT

11:06

**B-0683** Dense breasts as a new standard indication for MR mammography: prospective analysis of 1488 consecutive patients

C.O. Kaiser1, C. Reich1, K. Wasser1, S.O. Schönberg1, W.A. Kaiser2, Mannheim/DE, Jena/DE

11:15

**B-0684** Is 2D central projection obtained with digital breast tomosynthesis qualitatively equivalent to digital mammography?

P. Casari1, V. Lendon2, C. Molinar1, R. Girogetti1, A. Tabbi1, S. Vecchio1, L. Zanini1, M. Bazzocchi1; 1Udine/IT, 2Bologna/IT

11:24

**B-0685** The role of additional ultrasound and tomosynthesis after normal digital mammography: comparison between both techniques

P. Sier1, J. Ehrl1, Simon-Yarã1, D. Witer1, A. Elizalde1, L.J. Pina Insuasti1; Pamplona/ES

11:33

**B-0686** Lesion detection and characterization of one-view digital breast tomosynthesis with one-view mammography compared to two-view mammography

E. Gennaro1, L.A. Carbonaro2, M. Bazzocchi2, V. Lendon3, A. Dal Col1, R.M. Trimboli1, F. Sardanelli1; 1San Donato Milanese/IT, 2Udine/IT

11:42

**B-0687** Does the adjunct of digital breast tomosynthesis (DBT) increase inter-reader reproducibility of two-dimensional digital mammography (2D-DM)?

G. Di Leo1, L.A. Carbonaro2, M. Bazzocchi2, V. Lendon3, A. Dal Col1, R.M. Trimboli1, F. Sardanelli1; 1San Donato Milanese/IT, 2Udine/IT

**B-0688** One-to-one comparison between digital mammography and digital breast tomosynthesis using a fully automated software: breast density underestimation on digital breast tomosynthesis varies in different BI-RADS classes

A. Tagliafico1, S. Arald1, F. Cavagnetto1, B. Bingotti1, S. Tosto2, D. Astengo2, M. Calabrese1, Genoa/IT

### Genitourinary

**SS 1307** The bladder and below

Moderators: M. Bahrami1, Tobiss/GE, R.H. Gyer2, Leuven/BE

10:30

**B-0689** The role of CT as a staging tool and prognostic biomarker in the pretreatment evaluation of intradiverticular bladder tumours

P.L. Di Groli1, A. Ronchetti1, P.报业1, J. Barshi Jr1, J. Bartke Jnr1, Bologna/IT

10:39

**B-0690** Usefulness of diffusion-weighted magnetic resonance imaging in patients with muscle-invasive bladder cancer selected for radical cystectomy: lymph node staging prospective study and comparison with CT scan

J. Borrego-Domínguez1, J. Martel Villagay1, E. De la Peña1, J. Culebras1, C. Llorente1, Madrid/ES

10:48

**B-0691** Use of FLAIR sequences for detection and local staging of bladder tumours with MRI

M. Di Groli1, G. Muscoquis1, M. Cappucci1, V. Catena1, R. Perechino1, V. David1, Rome/IT

10:57

**B-0692** Magnetic resonance virtual cystoscopy versus conventional cystoscopy in the detection of urinary bladder cancer

S. Flannigan1, Purdich1, IN

11:06

**B-0693** Voiding MR cystourethrography: a new diagnostic imaging technique for the evaluation of male lower urinary tract disease

M. Di Groli1, C. Cantone1, E.M. Pandolfi1, R. Perechino1, F. Caporilli2, Riva1, V. David1, Rome/IT

11:15

**B-0694** Micturition MRI: voiding assessment in continent ileal urinary reservoir

J. Lopater1, A. Schermer1, V. Delmas1, S. Gey1, Y. Neuzillet1, T. Lebret1, Suresnes/FR, Paris/FR

11:24

**B-0695** Clinical relevance of magnetic resonance dynamic spongiosotomography of male urethral stricture detection

E. Banich1, V. Dombrovsky1, M. Kogan1, V. Mitusov1, Rostov-on-Don/RU

11:33

**B-0696** Urinary bladder neck dysfunction in male patients: evaluation with MRI and with voiding MR-cystourethrography

M. Di Groli1, A. Trucchi1, S. Mariani1, G. Muscoquis1, I. Casazza1, V. David1, Rome/IT
10:30–12:00 Room I/K

Abdominal Viscera

SS 1301 Abdominal CT: dose reduction and technical improvements
Moderators: D. Tack, Baudour/BE, A. Taibi, Palermo/IT

10:30
B-0699 Hybrid iterative reconstruction for abdominal CT: can the radiation dose be decreased while preserving the low-contrast detectability?

10:48
B-0701 Efficacy of a liver detection algorithm for noise reduction in abdominal CT
N. Ardley1, K. Buchan2, K. Lau1; 1Clayton/AU, 2Melbourne/AU

10:57
B-0702 Impact of modified abdominal CT protocols for obese patients with filtered back projection and hybrid iterative reconstruction technique on image quality, radiation dose and low-contrast detectability: a phantom study
S.T. Schindera1, D. Odedra2, D. Merc2, S. Tripphavong3, P. Chou4, Z. Szucs-Farkas5, P. Rosiell6; Basle/CH, Toronto/ON/CA, Be/t/CH

11:06
B-0703 Automated attenuation-based tube potential selection for abdominal CT examinations: impact on image quality and dose reduction
P. Kroger, P. Heusch, L. Schimmoller, F. Mese, G. Dietrich, G. Antoch, R.S. Lanzman; Düsseldorf/DE

11:15
B-0704 Second generation dual-energy CT of the abdomen: radiation dose comparison with 64- and 128-row single energy acquisition
C.N. De Cecco, A. Barnell, N. Macias, M. Muscogiuri, C. Ayuso, A. Laiga; Rome/IT

11:24
B-0705 Can iterative reconstructions improve the detection of small hypervascular liver nodules with dual-energy CT?
L. Facchetti1, L. Berta2, L. Mascaro3, F. Pittiani1, L. Romanini1, R. Maroldi1; 1Brescia/IT, 2Milan/IT

10:30–12:00 Room L/M

Head and Neck

SS 1308 Advanced imaging of the ear, orbit and glands
Moderators: R. Elias, Rotterdam/ NL, B.F. Schuknecht, Zurich/CH

10:30
B-0709 Volume-rendering 3D-MRI for detection of auditory pathways in children under evaluation for cochlear implantation
I. Bunt1, N.N. Nau2, M. Harth1, T. Stöver1, T.J. Voig1, S. Strei1, Frankfurta/ Main/DE

10:39
B-0710 Congenital sensorineural hearing loss and ABI surgery: pre-operative radiological protocol and considerations after 12 years of experience
M. Barillari1, R. Cerini1, F. Spagnolli1, N. Cardobi1, M. Carner1, L. Colletti1, V. Colletti, R. Pozzi Mucelli1; Verona/IT

10:48
B-0711 Three dimensional and multiplanar reconstruction of the internal auditory canal using high-resolution MR imaging before cochlear implantation: does the size of the cochlear nerve affect the results of speech recognition outcome after implantation?
N.N.N. Naguib1, N.-E.A. Nour-Eldin1, T. Lehnert1, T. Lehnert1, M. Harth1, T.J. Voig1, C. Hey; Frankfurta/Main/DE

10:57
B-0712 Local tumour control in uveal melanoma (UM) after gamma knife radiosurgery (GKR): quantitative assessment of tumour response with contrast-enhanced ultrasound (CEUS)
C. Calantoni1, M. Venturini1, G. Modorati1, A. Colucci1, M. Di Nicola1, G. Agostini1, F. De Cobelli1, F. Bandello1, A. Del Maschio1; Milan/IT

11:06
B-0713 Evaluation of lacrimal drainage system obstruction using combined multidetector CT and instillation dacryocystography
M. Shweel1, A. ElShafaey1, M. Nasar2, R. MohyElDien1, ElmIna/EG

11:15
B-0714 Parotid gland tumours shear wave elastography: a preliminary study
S. Espinoza-Boireau1, I. Khettab1, A. Lacan Melki2, P. Halimi1; Paris/FR
<table>
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<tr>
<th>Session Time</th>
<th>Session Code</th>
<th>Title</th>
<th>Authors</th>
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<tr>
<td>10:30–12:00</td>
<td>B-0715</td>
<td>Does heterogeneous echogenicity of the thyroid parenchyma influence the detection of multifocality and bilaterality for papillary thyroid carcinoma on preoperative ultrasound staging?</td>
<td>S. Han, E.-K. Kim, H. Moon, J. Kwak, Seoul/KR</td>
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<td>11:33</td>
<td>B-0716</td>
<td>Role of elastography in the characterisation of thyroid nodules</td>
<td>F. Sanna, P. Tessitore, A. Scirreri, F. Pittian, L. Boni, R. Maroldi, Brescia/IT</td>
</tr>
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<td>11:42</td>
<td>B-0717</td>
<td>The new approach to thyroid elastasonography – time-strain curves – may aid the differentiation of nodules</td>
<td>R. Sera, B. Magda, W.S. Jakubowski, J. Bierca, J. Słowawska-Szrednicka, Warsaw/PL</td>
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<tr>
<td>11:51</td>
<td>B-0718</td>
<td>Semiquantitative strain elastography for the evaluation of chronic thyroiditis</td>
<td>F. Sanna, M. Saha, R. Sul, M.T. Ino, M. Yotsui, Kohnanmanaras/TR</td>
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<tr>
<td>11:24</td>
<td>B-0724</td>
<td>Usefulness of low-dose CT with or without adaptive statistical iterative reconstruction (ASIR) in the diagnosis of acute appendicitis</td>
<td>J. Pospišil, M.S. Carreras, I. Amet, J. Uresa, A.R. Gil, T. Marquina, A. Castilla, I. Aquimopoca, L. Martinez, Bankaido/ES</td>
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<tr>
<td>11:33</td>
<td>B-0726</td>
<td>Impact and appropriateness of emergency department ultrasonography: a prospective study</td>
<td>E.S. Ventura, Y. Costa, P.V. Gomes, Fano/IT</td>
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<tr>
<td>11:42</td>
<td>B-0727</td>
<td>Post mortem computed tomography (PMCT) quality management in critical care</td>
<td>S. Grabbe, M.F. Bauer, D. Peschel, M. Grau, K.-G. Kanz, Munich/DE</td>
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<td>10:39</td>
<td>B-0720</td>
<td>Simple and easy way using time-intensity curve of perfusion-weighted images to find penumbra in stroke patients within 4.5 hours of onset due to the carotid artery occlusion</td>
<td>T. Mori, T. Iwata, Y. Miyazaki, Y. Nakazaki, Y. Takahashi, Kamakura/JP</td>
</tr>
<tr>
<td>11:06</td>
<td>B-0723</td>
<td>Automated selection of tube potential in thoracoabdominal trauma CT results in significant dose savings</td>
<td>E. Preclínek, J. Karel, T. Lehner, M. Harth, B. Schulz, B. Bodelle, M. Becker, T. Polet, R.W. Bauer, Frankfurt/DE</td>
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<td>10:39</td>
<td>B-0730</td>
<td>Multi-detector CT studies in children: a comparison of radiation doses between paediatric and non-paediatric radiology units. Results from the first 2011 Italian SIRM survey</td>
<td>C. Granata, F. Palolini, D. Onno, D. Matranga, S. Salerno, G. Genoa/IT, Milano/IT, Palermo/IT</td>
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<td>10:57</td>
<td>B-0732</td>
<td>Anthropometry of children and mathematical phantoms applied to dose reconstruction in paediatric radiology</td>
<td>M.C. Schneider, A. Schneider, Munich/DE</td>
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<td>11:06</td>
<td>B-0733</td>
<td>Radiation exposure during scanograms (scoutviews) in paediatric computed tomography (CT)</td>
<td>K. Schneider, M. Teich, M.C. Schneider, Munich/DE</td>
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<td>11:15</td>
<td>B-0734</td>
<td>Reference values for cardiac valve diameters in extreme preterm infants</td>
<td>A. Adams, N. Wesseling, J.L.M. Strengers, W.B. de Vries, M.C. Molenschot, Nijmegen/NL</td>
</tr>
</tbody>
</table>
SS 1306  New agents and protocols
    Moderators: L. Grazzi, Brescia/IT, T.C. Lauenstein, Essen/DE

10:30 B-0739  Magnetic resonance imaging diagnosis of metastatic lymph nodes: efficacy of the novel ultrasmall superparamagnetic iron oxide agent with monodisperse iron oxide core and multiple-interaction ligands
    K.-E. Yoo1, S. Choi1, H. Cho1, E.-g. Kim1, J. Park1, W.-j. Myeong1, S. Seoul/KR

10:48 B-0741  Potential use of intra-articular diluted high-relaxivity gadolinium-based contrast agent for magnetic resonance angiography (MRA): an in-vitro study
    L.M. Sconfienza, A. Aliprandi, P. Cannaò, S. Sdao, M. Bandirali, F. Sardanelli, Milan/IT

10:57 B-0742  Feasibility of contrast agent volume reduction on 640-slice CT coronary angiography in patients with low heart rate
    Z.-X. Tang, Z. Wang, Hangzhou/CN

11:06 B-0743  The influence of the contrast media protocol and the scan mode on arterial enhancement in cardiac CT
    E. Taka1, D. Stocker, P. Taubl, R. Maderthaner, F. Quehenberger, Graz/AU

11:15 B-0744  Multislice CT angiography with direct intra-arterial ultra-low-dose-contrast injection for the evaluation of renal graft failure: initial study
    M. Guzinski, J. Kurcz, J. Garsanek, M. Sasiadek, Wroclaw/PL

11:24 B-0745  Feasibility in low kV CT angiography of the abdominal aorta: assessment of image quality, radiation exposure and contrast material volume
    C.R.S., T. Antic, D. Ippolito, P.A. Bonaffini, V. Bartolo, C. Trattenero, S. Sironi, Monza/IT
Neuro

SS 1711 Brain ischaemia: perfusion and diffusion

Moderators: L. Gea-Araujo, Bilbao/ES, M. Vernooij, Rotterdam/NL

10:30 B-0749 Prognostic impact of perfusion CT data in the early period after subarachnoid haemorrhage

10:39 B-0750 Advanced MRI sequences in the acute evaluation of transient ischaemic attack (TIA). A comparison between DTI, DWI and ASL including 8 weeks follow-up scans: preliminary results from the Copenhagen TIA-MRI-study
A. Christensen, C. Ovesen, J. Damm, J. Nielsen, H. Christensen, Copenhagen/DK

10:48 B-0751 Normal laterality index of cerebrovascular reserve of the middle cerebral artery: a 100 volunteers’ BOLD fMRI study
A. Prasnik, A. Attiyeh, I. Tropes, L. Lamalie, J.-F. Le Bas, Grenoble/Fr

10:57 B-0752 In-vivo validation of velocity measurements by quantitative phase contrast MR angiography of the brain supplying arteries: a comparison with Doppler sonography

11:06 B-0754 Eligibility of 3-dimensional CT perfusion blood flow-volume mismatch to predict time from symptom onset in acute ischemic stroke

11:15 B-0755 Whole brain CT perfusion: volumetric assessment of perfusion deficits in patients with acute ischemic stroke

11:24 B-0756 Time-to-peak (TTP) maps using whole brain CT perfusion in minor stroke: a diagnostic tool beyond penumbra measurement
S. Chaudhuri, M.E. Ahnfeld, P. Wasserman, K. Keyhanian, D. Dowlatshahi, G. Stotts, Ottawa/CA

11:33 B-0757 Reliability of flow-volume mismatch assessment in whole brain coverage CT perfusion in acute stroke patients

11:42 B-0758 Influence of temporal sampling rate of CTP acquisitions on cerebral perfusion maps using a digital phantom
**Interventional Radiology**

**SS 1709 Abdominal interventions: from TIPS to bile ducts**

10:30

**B-0768** In vivo micro-CT and \(^{18}\)F-FDG micro-PET imaging of SPC-raf and SPC-myc transgenic mouse models of lung adenocarcinoma


10:39

**B-0770** Management of post-surgical biliary leakage with retrievable covered stent: preliminary results

A. Arrigo, A. Campan, J. Piaraja, C. Michelotti, L. Rahail, A. Sacchini, F. Melchiorre, G. Comadba, Milan/IT

10:48

**B-0771** Bioabsorbable biliary stent in the percutaneous treatment of benign biliary strictures: preliminary experience


10:57

**B-0772** Patient doses in liver-transplanted children with bile duct strictures treated with interventional radiology procedures: a single centre survey

L. Manuzelli, G. Manno, R. Miranda, L. Indovina, A. Luca, Palermo/IT

**Musculoskeletal**

**SS 1710 Hip: CT and MRI applications**

10:30

**B-0779** Retrospective analysis of CT as secondary imaging in the diagnosis of occult femoral neck fracture

K.J. Partington, P. Robinson, H. Gupta, Leeds/UK

10:39

**B-0780** MRI or CT for occult hip fracture: Do either miss clinically relevant fractures?


10:48

**B-0781** Digital tomosynthesis in diagnosis of occult hip fractures

M. Seiger, O. Collin, J.H. Gothier, Lund/SE, Mohida/SE

10:57

**B-0782** Advanced core decompression for patients with avascular necrosis of the hip: therapeutic success monitored by MRI


11:06

**B-0783** Lower-limb MRI examination as a predictive factor of early complications after pancreatic surgery: a 12-year single-centre experience on 1285 patients

G. Balzano, P. Maffi, A. Del Maschio, Milan/IT

11:15

**B-0784** Alpha angles and herniation pits: revisited on MRI in 80 asymptomatic hip joints


11:24

**B-0785** Gluteus tendinopathy in femoroacetabular impingement (FAI): findings with MR-artrography of the hip

E. Lanuza, G. Pozzi, C. Garcia Parra, R. Bisogno, A. Zerbi, Milan/IT, Bergamo/IT

11:33

**B-0786** Evaluation of a new method for the assessment of anterior acetabular coverage and hip joint space narrowing


11:42

**B-0787** Diagnostic value of MR enterography (MRE), after oral administration of glucose-polyethylene, in the determination of the activity of disease in patients with known Crohn’s disease: a prospective single centre study

V. Bertb, D. Ippolito, C. Trattenero, P.A. Bonaffini, V. Besocchi, S. Sirori, Monza/IT
10:30–12:00  Room F1

Oncologic Imaging

SS 1716  Response evaluation in oncology: beyond RECIST

Moderators: T. Benecke, Berlin/DE, M.I. Furmanek, Warsaw/PL

10:30  B-0799  Calibration of computed tomography (CT) volumetric measurements for assessing tumour response to drug therapy in a randomised multicentre oncology study

H. Zwaan1, D. Yankovenitz1, V. Archer1, D. Zalama2*, Clifton Park/NY/US, 1New York/NY/US, 2Telwes Garden City/LK, Basile/IL

10:39  B-0800  Evaluating the agreement between tumour volumetry and the estimated volumes of tumour lesions using an algorithm

M. Manetta1, R.P. Laubender, V. Heinemann, M.F. Reiser, M. Schlichting, A. Graßer, Munich/DE

10:48  B-0801  Chemotherapy response evaluation with magnetic resonance (MR) and FDG-PET/CT in gastroesophageal tumours (GT): apparent diffusion coefficient (ADC) and standardised uptake volume (SUV) changes compared with tumour regression grade (TRG) at histology

F. Garold1, P. de Cobelli, C. Carnevale, E. Orsenigo, L. Aliberti, E. Mazza, C. Staudacher, L. Gnanoli, A. Del Maschio, Milano/IT

10:57  B-0802  Treatment response assessment in Hodgkin lymphoma: in search for morphological correlates of metabolic activity


11:06  B-0803  Predictive values of MRI parameters for the progression-free survival after radioembolisation in patients with metastases of neuroendocrine tumours

T. Strelkov, F. Centon, P. Paphitiitaka, M.F. Reiser, O. Theissen, Munich/DE

11:15  B-0804  One-month apparent diffusion coefficient-determined response at diffusion-weighted MRI is an independent predictor of response to transarterial chemoembolization for hepatocellular carcinoma


11:24  B-0805  Real-time imaging of the therapeutic response of tumours to anti-vascular treatment in mice by gadofosveset-enhanced MRI


11:33  B-0806  Reproducibility of therapy response evaluation between experienced and less experienced readers of pleural mesothelioma by mRECIST, RECIST 1.0, RECIST 1.1, and WHO

L. Schmitz1, A. Barkel1, Y. Tan2, M. Steen2, X. Gu3, D. Maintza1, L. Schwartz4, B. Zhao2, T. Persigehl1, Münster/DE, Cologne/DE, New York/NY/US

11:42  B-0807  Use of multimedia structured reporting for tumour response assessment

O.J. Mattei1, A. Htoo1, I. Adhernaire1, C. Popovic1, M. Jare2, R. Rosu1, A. Tumemboul1, Houston/TX, US, Chapel Hill/NC, UK
B-0808 - B-0827

**Scientific Sessions**

**B-0816 Breast tomosynthesis versus digital mammography:**
11:33

**B-0815 Recall rate reduction by adding double reading digital mammography:**
11:24

**B-0814 Influence of breast density on diagnostic performance of digital breast tomosynthesis (DBT) after digital mammography (DM) focusing on recall rate reduction:**
11:15

**B-0813 The role of tomosynthesis after normal mammography:**
11:06

**B-0812 Digital mammography in comparison with digital mammography:**
10:57

**B-0811 Detection rate for suspicious lesions of digital breast tomosynthesis in combination with digital mammography or 2D central projection imaging:**
10:48

**B-0810 Does breast tomosynthesis combined with 2D digital mammography increase the detection rate of breast cancer?**
10:39

**B-0809 The role of additional tomosynthesis combined with digital mammography:**
10:30

**B-0808 Comparison of breast-MRI vs. standard prognostic factors for the prediction of local recurrence after treatment of primary breast cancer:**
10:21

**B-0807**

**SS 1702 Tomosynthesis: a role in clinical practice?**
10:30

**B-0809 The role of additional tomosynthesis combined with digital mammography**

**B-0808**

**Genitourinary**

**SS 1707 Hints on haematuria and adrenals for all**
10:30

**B-0817 Analysis of discordant screening-detected cancers at FFDM (2D) versus 2D plus tomosynthesis (combo mode) in a population-based screening program: results from the Oslo tomosynthesis screening trial**
11:42

**B-0816 Breast tomosynthesis versus digital mammography: evaluation of diagnostic potential in women with abnormal screening mammograms**
11:33

**B-0815 Recall rate reduction by adding double reading digital mammography (DBT) to digital mammography (DM)**
11:24

**B-0814 Influence of breast density on diagnostic performance of digital breast tomosynthesis (DBT) after digital mammography (DM) focusing on recall rate reduction**
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**B-0807**

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10:30

**B-0808 Comparison of breast-MRI vs. standard prognostic factors for the prediction of local recurrence after treatment of primary breast cancer:**
10:21

**B-0807**
B-0848 Value of monoenergetic low-keV dual-energy CT datasets for improved image quality of abdominal CT angiography
S. Schlüer, D. Schneider, P. Apfaltrer, S.D. Schönberg, T. Henzler, Mannheim/DE
10:30–12:00 Room N/O

Cardiac
SS 1703 Biomarkers, tissue characterisation and remodelling
Moderators: M. Dey, Maassticht/NL, K. Gruszczynska, Katowice/PL

B-0849 Biomarkers of atherosclerotic and myocardial remodelling; correlation with plaque volume in cardiac CT
L.L. Feuer1, A. Krainkisky1, J.R. Silverman1, F. Bamberg2, U. Ebersberger1, P. Castello1, U.J. Schoepf1; 1Charleston, SC/US, 2Munich/DE

10:39

B-0850 Morpho-functional and metabolic assessment of the heart in adult-onset growth hormone (GH) deficiency patients with cardiac magnetic resonance (CMR) and 31P MR spectroscopy (31P-MRS)
M. Esco1, F. De Cobelli1, A. Esposito1, F. Perseghin1, A. Rossoni1, R. Landi1, M. Losa1, T. Caru1, A. Del Maschio1, Milan/IT

10:48

B-0851 Right ventricular remodelling after ST-elevation myocardial infarction
M. Tsch1, M. Gumbelet, H. Thiele, M. Grothoff1, Leipzig/DE

10:57

B-0852 Influence of periprocedural myocardial necrosis assessed by magnetic resonance delayed enhancement in patients with bifurcation lesions angioplasty on prognosis at one-year follow-up
R. Gir1, J. Walczak1, B. Vassilev1, M. Fumanek1, A. Michalek1, M. Odyrek-Nowadza1, A.J. Ptasz1, Warsaw/PL

11:06

B-0853 Exposure to a high fat diet during early development increases the susceptibility to cardiac lipid accumulation
P.A. van Ewijk1, S. Pagliaulainen1, J. Slieter1, J.E. Wilderg2, J. Glutz1, M.K.C. Hesselink1, P. Schrauwen1, V.B. Schrauwen-Hinderling1, M.E. Kooi1, Maastricht/NL

11:15

B-0854 Cardiac and hepatic iron and heart function by MR in thalassaemia major patients treated with combined deferoxamine and desferrioxamine regimens versus monotherapies: a multi-centre, observational and prospective study
E. Pietrapertosa1, M. Lombardi1, M. Milini1, A. Pepe1, 1Palermo/IT, 2Naples/IT, 3Pisa/IT, 5San Giovanni Rotondo/IT

11:24

B-0855 Are the preferential patterns of myocardial iron overload preserved at the CMR follow-up?
E. Pietrapertosa1, A. Meloni1, G. Giuffrida1, E. Greser1, E. Chiodi1, A. Pietrapertosa1, M. Lombardi1, M. Milini1, A. Pepe1, 1Palermo/IT, 2Pisa/IT, 3Catania/IT, 4Ferrara/IT, 5Bari/IT

11:33

B-0856 The effect of partial volume averaging on peak velocity measurements in phase contrast magnetic resonance angiography (PCMRA)
J.L. Rodriquez1, P. Menhas1, G. Pielies1, E. Buccionelli-Duca1, R. Tullis1, N.E. Manghat1, E.J. Ockleshave1, M.D.K. Hamilton1, 3Bristol/UK, 4Auckland/NZ

11:42

Paediatric
SS 1712 Foetal and neonatal imaging
Moderators: N. De Graaf, Rotterdam/NL, H. Ringertz, Linköping/SE

B-0857 Different patterns of delayed cardiac enhancement in symptomatic patients with post-total correction of tetralogy of fallot assessed by cardiac MRI and its correlation with right ventricular function: a report from Iran
F. Akhavan1, M. Motevali1, N. Abolfat-h-Zadeh1, Ghale Joushi1, Tehran/IR

11:51

B-0858 Diastolic versus systolic acquisition of T1 maps of normal human myocardium at 1.5T magnetic resonance imaging
U. Beeler1, G. Reiter1, K. Dorr1, R. Maderthaner1, M.H. Fuchsjaeger1, Graz/AT, Erlangen/DE

10:30–12:00 Room P
Radiographers

SS 1714  Mammography

10:30  B-0869  Online portfolio for radiographers attending the breast cancer screening mammography certificate in Switzerland
N. Richli, M. Meystre, L. Faerion, R. Le Couture, Lausanne/CH

10:39  B-0870  Inter-observer agreement among PGMI radiographer in Cambridge/UK and Oslo/NO in assessing each other’s and their own mammography screening exams

10:48  B-0871  Radiation dose levels assessment in mammography

10:57  B-0872  Quality control in digital mammography: radiographers practice at 5 hospitals of Lisbon
C. Fonseca, C. Gonçalves, C.I.S. Reis, Lisbon/PT

11:06  B-0873  An investigation into the psychological anxiety of Maltese women before and after a mammogram
S. Ferraioli, St. Lucia/MT

11:15  B-0874  Ergonomic and environmental assessment in digital mammography room: impact on radiographers’ activity
S. Costa, E. Oliveira, F. Semanhera, S. Viegas, C.I.S. Reis, Lisbon/PT

11:24  B-0875  Accuracy of students, and radiographers, with and without, mammography post-graduation in interpretation of mammography images

11:33  B-0876  Patient satisfaction assessment in mammography exams

11:42  B-0877  Impacts of digital mammography in radiographers practice
L. Parino, T. Fernandes, C.I.S. Reis, Lisbon/PT

11:51  B-0878  Imaging ethics
B. Reichenbach, Oslo/NO

10:30–12:00  Room Z

Molecular Imaging

SS 1706  Molecular imaging in cancer and degenerative diseases

10:30  B-0879  Improving current preclinical therapy monitoring methods by multiparametric MR using a hNIS-expressing tumour xenograft mouse model

10:39  B-0880  In vivo assessment of the anti-apoptotic effect of c-kit+ pluripotent bone marrow cells on ischaemic myocardium in mice with hybrid fluorescence molecular tomography – x-ray computed tomography
M. Wildgruber1, A. Ale, P. Rosinke, R. Braren, R. Mager, E.J. Rummeny1, V. Ntziachristos1, M. Wildgruber2, Munich/DE

10:48  B-0881  Magnetic resonance imaging of murine myocardial infarction with an elastin-binding contrast agent

10:57  B-0882  Comparison of nanobodies and conventional monoclonal antibodies for in vivo fluorescence imaging of lymphomas

11:06  B-0883  The design of a dual-functional imaging contrast agent for targeting to tumour endothelial marker (TEMB8)
Q. Du1, X. Huang1, J. Xie1, Y. Yan3, H. Gao1, G. Zhang1, X. Chen2, 1Shanghai/CH, 2Bethesda, MD/US, 3Madison, WI/US

11:15  B-0884  Folic acid-modified dendrimer-entrapped gold nanoparticles as nanoprobes for targeted computed tomography imaging of human lung adenocarcinoma

11:24  B-0885  Imaging of the therapeutic efficiency of photodynamic therapy with a new designed fluorescence optical annexin probe

11:33  B-0886  Bimodal NIRF nanoparticles as an optical and MRI contrast agent for imaging cells of the mononuclear phagocyte system
J. Bomann1, C. Baugniet1, J. Krumbenie1, J.R. Reichenbach1, S. Bremer-Streck1, W.A. Kaiser1, I. Hilger1, Jena/DE, Berlin/DE
B-0887  Assessment of in vivo cell viability of Gd or SPIO cells using MRI and BLI

B-0888  Interaction of magnetically labelled multipotent mesenchymal stromal cells and E/P-selectins monitored by magnetic resonance imaging in mice

14:00–15:30  Room B

Neuro

SS 1811a  Latest developments in neuroimaging
Moderators: S. Haller, Geneva/CH; E. Papadaki, Varkon/GR

14:00  B-0889  Improved image quality for higher diagnostic accuracy of cranial computed tomography using iterative image reconstruction
H. Haubenreisser1, C. Frink2, P. Apfalter1, B. Schmid1, M. Sedimann1, S. O. Schonberg2, T. Henzler1; Mannheim/DE, "Colle/DE, Forchheim/DE

14:09  B-0890  Synchrotron radiation micro-CT imaging of the mouse brain
A. Chabrol1, H. Rost1, M. Marincusi1, M. Langer2, C. Oliver3, F. Peyrin4, C. Pinzler5, M. Ward5, Y. Berthezene6; Lyon/FR, Grenoble/FR

14:18  B-0891  Effect of dose reduction on cerebral CT perfusion maps: results from a hybrid digital perfusion phantom
K. von den Reim1, M. Dei1, L.J. Dostovenko1, H. Lauer1, B. van Ginneken1, M. Nanniasson1, M. Prokop1; "Amsterdam/DE, "Bremen/DE

14:27  B-0892  idose hybrid iterative reconstruction algorithm improves image quality in brain CT and partly compensates for radiation dose reduction
A. Dörfler1, K. Sieradzki1, P. Hoppl2, D. van Westen1, L. Sterbenz1, C. Petersen1; "Düsseldorf/DE, "Hamburg/DE

14:36  B-0893  MRI susceptibility-weighted imaging (SWI): role in the differentiation of inflammatory pathologies from high-grade glioma
S. Qiu1, T. Wang1, Z. Yang1, F. Xu1, B. Baykal1; "Shanghai/CH, "Los Angeles, CA/US

14:45  B-0894  Inter-session reproducibility of cerebral blood flow (CBF) in the primary motor cortex as assessed in the VESPA (vendor-specific features of ASL-MRI) study

14:54  B-0895  Are quantitative pharmacokinetic data of dynamic contrast-enhanced MRI influenced by observer-related bias? New data with special focus on reproducibility, precision, accuracy, reliability, repeatability and systematic bias
M. Berkel1, M. Saake1, P.A.T. Bälzter1, S. Lars1, B. Volkers1, T. Stoffers1, T. Engelhorn1, A. Börsch1; Erlangen/DE, "Vienna/AT

15:03  B-0896  MR elastography (MRE) for non-invasive differentiation of intracranial tumours: results of a histology correlated study
M. Saake1, T. Göhr1, M. Bonsain1, D. Petersen1, I. Sack2; J. Würfel3; "Lübeck/DE, "Bremen/DE, "Göttingen/DE

15:12  B-0897  Intra- and inter-scanner test-retest reliability of whole-brain arterial spin labeling perfusion MRI
B. Wu1, X. Wu1, X. Lou1, M. Tu2; L. Ma, Beijing/CH

15:21  B-0898  Software for the radiological view: fully automated CT-based quantification of microangiopathic density reduction in white matter in comparison to gold standard MRI
U. Hanning1, T. Niederstadt1, G. Homann1, T. Niederstadt1, V. Hesselmann1, W. Herr1, A. Kemmling1, "Münster/DE, "Mannheim/DE, "Hamburg/DE

14:00–15:30  Room C

Neuro

SS 1811b  Spinal imaging
Moderators: M. Buruian, Targu-Mures/RO, A. Canfora, Lugano/CH

14:00  B-0899  Diagnosis of lumbar transitional vertebrae on lumbar MRI: role of spinal and paraspinal anatomic markers and value of additional whole-spine localizer
N. Tokgoz1, M. Ucar1, B. Erginay1, K. Kılıc1, C. Ozcan1; Ankara/TR

14:09  B-0900  Intravertebral gas in the cervical spine
P. Sarrat1, J. Etxano1, G. Mon1, I. Sánchez-Yarza1, M. Páramo1, P. García1, J.C. Puero1, J. Larrache1, Pamplona/ES

14:18  B-0901  The importance of craniovertebral and cervicomedullary angle on cervicogenic headache
G. Colbo1, F. Lopez1, B. Ibañez1, C. Moneo1, R. Bonarek1, H. Haubenreisser1; Athens/GR, "Amsterdam/DE

14:27  B-0902  Acute low back/leg pain due to lumbar disc herniation: intradiscal and intraforaminal injections of oxygen-ozone vs steroid and anaesthetics
A. Alexandre1, G. Izzo1, G.G. Giardina1, L. Coro2, A. Alexandre2; Roma/IT, "Rome/IT, "Treviso/IT

14:36  B-0903  Optimising a BLADE sequence for T2-weighted MRI of the cervical spine in transverse orientation: is there a chance for artefact reduction?
C. Teilum1, C.M. Wendt1, C. Straszczynski1, T. Finkenzeller1; "Regensburg/DE, "Nürnberg/DE

14:45  B-0904  Role of 3D MRI with ProSet technique in the evaluation of lumbar radiculopathy
D. Grass1, C. Borrego1, C. Briscoe-Jennings1, P.P. Stoppino1, D. Meitshonda1, L. Macarini1, Foggia/IT

15:12  B-0907  Diffusion tensor imaging of the spondylotic cervical spinal cord: a new biomarker in cervical spinal cord myelopathy? A preliminary study
F.W. Cartes-Zumelzu1, S. Ingorokva1, H. Kasitron1, G.M. Fuetsch1, C. Kremser1, R. Gianata1, B. Broessner1, C. Théme1, Innsbruck/AT
B-0908  Diffusion tensor imaging and magnetisation transfer imaging of spinal cord in MS patients
M. Grothe1, Y. Ank1, H. Efendi1, A. Demiro1, Kocaeli/TR

B-0909  Ablation of atrial flutter guided by magnetic resonance imaging
M. Grothoff1, S. Sommer1, C. Horkowski1, J. Hoffmann1, G. Hendricks1, M. Gutberlet1, Leipzig/DE

B-0910  Quantitative BOLD response of the left ventricular myocardium to hyperoxic respiratory challenge at 1.5 T and 3.0T cardiac magnetic resonance imaging
S. Wiede2, S. Pazahr1, R. Manka1, H. Alkadni1, A. Boss1, P. Stolzmann1, Zurich/CH

B-0911  High-resolution susceptibility-weighted magnetic resonance imaging of carotid microvasculature
F. Randoz2, L. Polka2, S. Estrada2, J. Balay2, L.A. Ciampi2, H. Ducou le Pointe2, D. Clement2, Paris/FR

B-0912  T2-weighted dark blood cardiac imaging using a dual-source parallel radiofrequency transmission with RF shimming at 3 T compared with standard MR imaging at 3 T
M. Rasper1, M. Settles1, B. Gramer1, M. Souvatzoglou1, E.J. Rummeny1, A. Huber1, Munich/DE

B-0913  Myocardial T1-mapping and myocardial extracellular volume (ECV) fraction: intravoxel comparison of gadobutrol and gadoterate meglumine in an animal model

B-0914  Noninvasive diagnosis of pulmonary hypertension via multi detector computed tomography: a phantom study
J.M. Groen1, K.F. Kofoed1, M. Zachor1, R. Vliegenthart1, T.P. Willems1, M.J.W. Greuter1; Groningen/NL, Copenhagen/DK

B-0915  Feasibility study for an image-based enhancement of low-dose intra-procedural 4D C-arm cardiac flat-detector CT (4D-FD-CT)
Y. Punjak2, C. Koecher1, S. de Buck1, D. Nuyens2, H. Heidbuchel1, M. Handler1, T. Remmuller1, P. Durendicsek2, V. Makanrenko1, L. Bockena1, S. Zhordiashvili1, I. Kedesdidi1, R. Remmuller1, C. Baumgartner2, Hall in Fird/AT, Prague/CZ, Moscow/RU, Graz/AT

B-0916  Assessment of HU-value stability in dynamic CT-scans for quantitative estimation of myocardial perfusion
M. Handler1, T. Remmuller1, P. Durendicsek2, V. Makanrenko1, L. Bockena1, S. Zhordiashvili1, I. Kedesdidi1, R. Remmuller1, C. Baumgartner2, Hall in Fird/AT, Prague/CZ, Moscow/RU, Graz/AT

B-0917  Impact of iterative image reconstruction algorithms on the feasibility of automated plaque assessment in coronary computed tomographic angiography
S. Prischa1, M. Forens1, M. Karkowy1, S. De1, P. Mauri2, J. Hoffmann1, C. Schett1, Boston/MA, US

B-0918  Calcium score of small coronary calcifications on multi detector computed tomography: a phantom study
J.M. Groen1, K.F. Kofoed1, M. Zachor1, R. Vliegenthart1, T.P. Willems1, M.J.W. Greuter1; Groningen/NL, Copenhagen/DK
**Musculoskeletal**

**SS 1810**  Knee: new horizons

Moderators: M. Aparisi Gomez, Valencia/ES, A. Cotter, Lille/FR

**14:00 – 15:30**  Room E1

**B-0927**  Completely CT-guided treatment of lumbar artery fed type 2 endoleaks after stent graft repair of abdominal aortic aneurysms and embolization with the liquid embolic agent ethylene vinyl alcohol copolymer (Onyx)

M. Treili, M. Sadeqhi, K. Eberhardt, D. Maxien, M.F. Resser; "Munich/DE, "Erding/DE"

**15:21**

**B-0928**  Endovascular treatment of type 1 endoleaks after stent graft repair of abdominal aortic aneurysms: effectiveness and safety of the ethylene vinyl alcohol copolymer (Onyx) as liquid embolic agent

M. Treili, M. Sadeqhi, K. Eberhardt, D. Maxien, M.F. Resser; "Munich/DE, "Erding/DE"

**14:00 – 15:30**  Room E2

**B-0929**  PCL index as an objective MRI tool to evaluate anatomic ACL reconstruction during functional activities

A. Nicola, F. Zampeli, E. Pappas, S. Ristanis, A. Georgoulis; "Athens/GR, "Shoals/US"

**14:09**

**B-0930**  Microstructural evaluation of the cruciate ligaments with MR diffusion tensor imaging (DTI): correlations with knee stability

I. DeClemente, G. Torrisi, P. Panza, M. Savastano, V. Calvisi, P. Palumbo, A. Tartaro, A.R. Costone, M. Gaulo, "Chieti/IT, "U-Aquila/IT"

**15:12**

**B-0931**  Dynamic contrast-enhanced imaging for detection of complications after double-bundle reconstruction of the anterior cruciate ligament


**14:27**

**B-0932**  Susceptibility artifacts on knee MRI: their frequency, change over time, and their relation with radiography-detected calcifications and joint space narrowing, and MR-detected meniscal tears


**14:36**

**B-0933**  Meniscal pathology demonstrated by MRI and low level laser therapy: a double-blinded placebo controlled trial

D. Pathe; M. Mallaniopoulos, K. Tisits, K. Omar; "Gorleston on sea, Great Yarmouth/UK, "Thessaloniki/GR"

**14:45**

**B-0934**  Meniscal tears are associated with adjacent tibiofemoral cartilage degeneration assessed using 3T MRI T2 relaxation time


**14:54**

**B-0935**  Articular depression assessed by MDCT as a predictor of soft-tissue injuries in tibial plateau fractures: intra-individual correlation to findings at magnetic resonance imaging

M. Resser, A. Sprio, F.O.G. Heres, G. Adam; "Hamburg/DE"
14:45 B-0955 Improved differentiation of breast tumours using novel imaging system based on co-registered opto-acoustic tomography and ultrasound

15:03 B-0956 Breast lesion excision system (BLES) – innovative breast biopsy technology: experience under stereotactic guidance in small microcalcification clusters
S. Vannilo, G.P. Scaparrotta, C. Ferrari, L. Suman, M. Marchesini, E. Capalbo, P. Pianzola, Milan/IT

15:12 B-0957 Percutaneous breast lesion excision system (BLES): a new tool for complete closed excision of high risk lesions
N.M. Álvarez-Benito, Cairo/EG

15:21 B-0958 Cryoablation as local therapy for patients with breast cancer bone metastases (BCBM)
C. Puzeddu, S. Pilleri, G. Amucano, L. Melis, G. Meloni, Cagliari/IT, Sassari/IT

14:00–15:30 Room F1
Breast

SS 1802a Newer techniques in breast imaging and therapy
Moderators: F. Chamming, Paris/FR, M. Sklair-Levy, Tel Aviv/IL

14:09 B-0950 Clinical feasibility of contrast-enhanced dual-energy mammography (CEDEM) with a tungsten (W)/titanium (Ti) anode/filter combination: a prototype report

14:18 B-0951 Comparison of contrast-enhanced dual-energy mammography (CEDEM) with contrast-enhanced magnetic resonance imaging (CE-MRI) in breast lesions: a prototype report

14:27 B-0952 Metabolic imaging of breast tumours with dedicated breast 18F-FDG PET-CT: comparison with contrast-enhanced MRI at 3T (3T CE-MRI)
H.F. Magnetschnigg, T.H. Helbich, H. Bickel, G. Wengert, B. Brück, P. Pinker-Domenig, Vienna/AT

14:36 B-0953 High spatial and temporal resolution breast imaging at 7 Tesla goes clinical

14:45 B-0954 Evaluation of T1/T2 ratios in a pilot study as a potential biomarker of biopsy: proven benign and malignant breast lesions in correlation with histopathological disease stage

15:03 B-0953 High spatial and temporal resolution breast imaging
Moderators: M. Álvarez-Benito, Córdoba/ES, E. Szabó, Szeged/HU

14:00 B-0949 The impact of contrast-enhanced digital mammography on the characterization of breast lesions
M.H. Heik, R.M. Fouad, M.A. Aly, R. Wessam, I. Gouda, N. Abdel-Shafi, Cairo/EG

14:09 B-0956 Breast lesion excision system (BLES) – innovative breast biopsy technology: experience under stereotactic guidance in small microcalcification clusters
S. Vannilo, G.P. Scaparrotta, C. Ferrari, L. Suman, M. Marchesini, E. Capalbo, P. Pianzola, Milan/IT

15:12 B-0957 Percutaneous breast lesion excision system (BLES): a new tool for complete closed excision of high risk lesions
N.M. Álvarez-Benito, Cairo/EG

15:21 B-0958 Cryoablation as local therapy for patients with breast cancer bone metastases (BCBM)
C. Puzeddu, S. Pilleri, G. Amucano, L. Melis, G. Meloni, Cagliari/IT, Sassari/IT

14:00–15:30 Room FZ
Breast

SS 1802b Maximising cancer detection in breast screening
Moderators: M. Álvarez-Benito, Córdoba/ES, E. Szabó, Szeged/HU

14:00 B-0959 Breast cancer prediction modelling based on common mammographic findings in screening

14:09 B-0960 Non-blinded versus blinded double reading of screening mammograms in the Netherlands: a population-based study

14:18 B-0961 Discrepant screening mammography assessments at double reading: impact of arbitration by a third reader on screening outcome

14:27 B-0962 First experiences with a self-test for Dutch breast screening radiologists as a quality assurance tool

14:36 B-0963 Transition from analogue to digital screening mammography significantly increases the proportion of women referred twice for the same lesion
L.M. Duker, H. Wiersma, Eindhoven/NL

14:45 B-0964 Audits as part of quality assurance in the Dutch breast cancer screening programme

Monday

265
**Scientific Sessions**

**B-0965**  
**Avoidable surgical consultations in women with a positive screening mammogram: experience from a southern region of the Dutch breast screening programme**  
IL. Schreutelkamp, R.M. Kwee, M. de Boeij, M.E.A.P. Adriaensen van Roij; Heerlen/NL

**B-0966**  
**BI-RADS 3 category, a pain in the neck for the radiologist: which technique detects more cases?**  

**B-0967**  
**Adding 3D automated breast ultrasound (ABUS) to service screening mammography in dense breasts**  
B. Wiksten, K. Hägemo, B. Adalstsson, M. Janicijevic, K. Thorneeman, C. Hinzer, K. Lennfeld; Stockholm/SE

**B-0968**  
**Feasibility of automated 3D breast ultrasound screening in women of high risk**  
J.C.M. van Zelst, R.D.M. Muis, T. Tan, N. Karssenmeier, R.M. Mann; Nijmegen/NL

**14:00–15:30 Room G/H**

**Genitourinary**

**SS 1807**  
**Mixed modalities in GU imaging**  
Moderators: A.J. Beer, Munich/DE; J. Vivas, Pamplona/ES

**B-0969**  
**Simultaneous [18F] choline PET/MRI of the prostate: initial results**  
A. Wetter, C. Lipponer, F. Nersia, T. Gilburt, H. Rubben, A. Bockisch, T. Laureenstien; Essen/DE

**B-0970**  
**Advantage of hybrid whole body 3T PET-MRI scanner for prostate cancer imaging**  
T. de Perrot, D. Rieger, M. Pusztaiszéteri, L. Koehl, A. Figueiral, M.-F. Pelte, C. Iselin, D. Rabbi, F.-P. Vallee; Geneva/CH

**B-0971**  
**Renal cell carcinoma subtype differentiation: CT vs MRI**  
P. Veloso Gomes, 1 A. Matos, 2 L. Vivas, 1 V. Herédia, 3 V. Mascarenhas, 4 O. Ratib, 5 J.-P. Vallee; Geneva/CH

**B-0972**  
**Characterization of complex cystic renal masses according to the Bosniak criteria: results from a 5-year follow-up with CEUS**  
M. Bertolotto, V. Savoca, W. Toscano, S. Kus, C. Ceratto, M.A. Cova; Trieste/IT

**B-0973**  
**Differentiation between benign Leydig cell and malignant germ cell testicular tumours with qualitative and quantitative contrast-enhanced ultrasound assessments**  
D.Y. Huang, R.J. Eckersly, M.E. Sellars, P.S. Sidhu; London/UK

**B-0974**  
**US and colour-Doppler findings in testicular lymphoma and their mimics**  
M. Bertolotto, 1 L.E. Derchi, 1 M. Secil, 1 M. Valentino, 1 P. Pavlica, 1 M.A. Cova, 1 T. Tani, 2 P. Pavlica, 1 M.A. Cova, 1 Trieste/IT, Genova/IT, 2Buenos Aires/AR, 3Torino/IT, 4Bologna/IT, 5Bologna/IT

**14:00–15:30 Room I/K**

**Abdominal Viscera**

**SS 1801b**  
**Liver volume, function and focal lesions**  
Moderators: B. Choi, Seoul/KR; C.M. Nyhes, Sunderland/UK

**B-0975**  
**Perfusion and permeability DCE-MRI measurements in renal cell carcinoma and metastases: effect of ROI size and positioning on inter- and intraobserver variability**  
M. Braunagel, C. Roeder, M. 't Hoen, M. Staehler, A. Crispin, K. Nikolaou, M.F. Reiser, M. Notoharnoeprodo; Munich/DE

**B-0976**  
**Can a contrast-enhanced ultrasound nephrotogram be used instead of a fluoroscopic nephrotogram: preliminary findings**  
M. Darenchi, K. Patel, D. Huang, M. Sellars, P. Sidhu; London/UK

**B-0977**  
**Vena cava anomalies associated with horseshoe kidney on MDCT**  
T. Ichikawa, J. Koushi, S. Kawada, Y. Inoue; Isehara/JP

**B-0978**  
**Comparison of dynamic transperineal ultrasound with evacuation proctography for the evaluation of patients with posterior compartment pelvic disorders**  
M.J. Webb, P. Ron, S. Oliver-Saig, E. Throni, Z. Halpem, E. Santo; Tel Aviv/IL

**B-0979**  
**ROC curve analysis of diagnostic confidence of CT and MR in focal liver pathology**  
L. Saba, M. Di Martino, 1 A. Cattai, 2 M. Pupa, 3 Cagliari/IT; Rome/IT

**B-0980**  
**Diagnostic accuracy of dynamic gadoxetic-acid-enhanced MRI and PET-CT in patients with liver metastases from neuroendocrine neoplasms**  
W.H. Sommer, 1 C. Zech, 2 S. Sourbron, 3 M. Armbruster, 4 M.F. Reiser, 5 Munich/DE; Leeds/UK

**B-0981**  
**The LiMAx test as adjunct to CT for assessing liver function after portal vein embolization**  
A.H. Mahnken, 1 A. Roeth, 2 P.H. Alizai, 2 C. Kuhl, 2 M.F. Reiser, 3 Munich/DE; Leeds/UK

**B-0982**  
**Future remnant liver function after portal vein occlusion measured with 99mTc-mebrofenin SPECT/CT**  
T. Wada, 1 T. Gwinn, 2 C. Horan, 2 P. Pap, 3 A. Zsoka-Klein, 4 E. Horvath, 4 A. Bozó, 4 A.H. Mahnken, 1 O. Hahn; Budapest/HU

**B-0983**  
**Comparison of percutaneous portal vein embolization, portal vein ligation and portal vein occlusion combined with ipsilateral hepatic artery cannula implantation prior to major liver resection**  
P. Fett, 2 T. Wada, 1 A. Zsoka-Klein, 3 P. Kupcsulik, 4 J. Fannos, 5 O. Hahn; Budapest/HU

**B-0984**  
**Hepatic parenchymal and vascular contrast improvement in super-delayed phase images of Gd-EOB-DTPA-enhanced MRI**  
14:00–15:30 Room L/M

Physics in Radiology

SS 1813 Patient dose management and dose surveys

Moderators: H. Bosmans, Leuven/BE, W. Stiller, Heidelberg/DE

14:00 B-0989 European population dose and differences in radiological procedures between European countries


14:09 B-0990 Radiation dose from multidetector CT examinations in adults in Italy: result of the first Italian survey

S. Salerno, C. Granata, D. Matranga, F. Palorini, D. Origgi, Genoa/IT

14:18 B-0991 Patient-specific whole body voxel model for accurate Monte Carlo CT dose estimation

N. Saltybaeva, Y. Smal, D. Kolditz, Erlangen/DE

14:27 B-0992 A simple algorithm for dose estimation in CT imaging considering patient size

Y. Smal, N. Saltybaeva, W. Palender, Erlangen/DE

14:36 B-0993 Monte Carlo tool for 3D-dose simulation in computed tomography taking into account tube current modulation

N. Saltybaeva, D. Kolditz, B. Schmilt, W. Palender, Erlangen/DE

14:45 B-0994 Evaluation of patient dose reduction after introduction of iterative reconstruction in routine MDCT

D. Peter, P. Coulier, P. Gouwe, L. Boussel, Pierre Benite/FR, Suresnes/FR, Lyon/FR

14:54 B-0995 Adjusting and measuring CT dose in severely obese patients

K. Marcus, F. Bamberg, Immunohistochemistry

15:03 B-0996 The effects of head size/shape, head positioning, and bow-tie filter selection on peak tissue doses from brain perfusion 256-slice CT

P. Stasiulis, D. Seppala, A. Tseraklis, A.G. Papadakis, D. Damilakis, Athens/GR, Alexandroupolis/GR

15:12 B-0997 Detector dose vs image quality in radiography with digital detectors: a visual grading analysis

R. Decoster, H. Moi, D. Smits, Brussels/BE

15:21 B-0998 Active personal dosimeters to support optimisation of radiation protection in interventional radiology

P. Pathmanathan, P. Bonatti, Thessaloniki, F. Bernard, Udine/IT

14:00–15:30 Room N/O

Vascular

SS 1815 Vascular research

Moderators: S. Kuribayashi, Tokyo/JP, A. Pellegrini, Trieste/IT

14:00 B-0999 Hybrid-MRA steady state VIBE imaging – a delayed closer look at the vessels: evaluation of the additional diagnostic benefit in patients who undergo a peripheral magnetic resonance angiographic protocol


14:09 B-1000 Multimodal imaging of atherosclerotic plaques using SPIO and quantum dot labelled high density lipoproteins in ApoE/- mice

C.S. Lin, H. Ittrich, M.D. Kohl, A. Pellegrini, Trieste/IT, Brussels/BE, M. Gericke, Erlangen/DE

14:18 B-1001 Skin autofluorescence, a non-invasive marker for AGE accumulation, is elevated in subjects with evidence for subclinical atherosclerosis


14:27 B-1002 Vascular enhancement and image quality of lower-extremity CT venography using 100 kVp and ultra high pitch: comparison of conventional lower-extremity CT venography using 120 kVp and standard pitch

K. Chien, J. Ruot, J. Han, C. Park, Busan/KR

14:36 B-1003 CT textual analysis of culprit lesions in transient ischaemic attack and/or stroke: correlation with immunohistochemistry


14:45 B-1004 Non-contrast-enhanced MR angiography combined with peripheral cardiac gating at 3T: comparison of diagnostic benefit in patients who undergo a closer look at the vessels: evaluation of the additional diagnostic benefit in patients who undergo a peripheral magnetic resonance angiographic protocol

M. Marcus, F. Bamberg, K. Neumaier, M.F. Reiser, T.R.C. Johnson, Munich/DE

14:54 B-1005 Low kV settings CT-angiography with ultra low contrast medium volume for the assessment of thoracic and abdominal aorta disease: a feasibility study


15:03 B-1006 X-ray phase-contrast imaging of arterial vessel wall: translation from synchrotron radiation to a conventional lab-based X-ray source

Paediatric brain tumour classification by quantitative methods of magnetic resonance imaging: combination of DTI, PWI and MRS

M. Martiño, S. Gaudino, E. Gangemi, R. Colantonio, G. Di Lella, C. Colosimo; Florence/IT

14:45

Evaluation of metabolic changes within the normal appearing grey and white matters in children with growth hormone deficiency: magnetic resonance spectroscopy and hormonal correlation

J. Brezinka, A. Eimer, A. Zachariasova, T.M. Gonder, A. Baraszek, T. Zak, A. Nyczynska, M. Sagadej, Wroclaw/PL

15:03

Functional correlation of the spastic hemiplegic patients with MR findings


15:03

B-1018 Diffusion tensor tractography and fractional anisotropy in paediatric cortical abnormalities evaluation with TBSS analysis

A. Ciccantone, I. D’Errico, M. Esposito, M. Mortilla, C. Fonda; Florence/IT

15:12

B-1019 Occupational exposition to electromagnetic fields in MR: understanding the discussion around the directive 2004/40/EC

C.S.L. Santos, D.P. Rocha, M.M.C.P. Ribeiro; Lisbon/PT

14:00

B-1018 Radiographers perceptions of magnetic resonance imaging; a study of the causes that lead to the repetition of exams


14:18

B-1021 A survey of the various methods and techniques employed in myocardial stress testing

P. Boe Grim, L. Rainford, P. Bezzina, D. O’Leary; Moda/MT, Dublin/IE

14:36

B-1023 Importance of scout imaging in neuroradiologic studies


14:45

B-1024 Comparison of a 12-channel- with a 32-channel head coil using SNR measurements

C. Vendruscoli, D. Pascual, F. Vicens, I. Ripa; Aspropyrgos/NU

14:54

B-1025 Psychological effect of chronic exposure to high magnetic field on MRI technologists

N.M. Mortilla, W. Hamed; Wiener Neustadt/AT

15:03

B-1026 Development and implementation of a synthetic data evaluation scenario for image fusion algorithms based on discrete wavelet transform and principal component analysis

V. Weiss; Berndorf/AT

15:12

B-1027 Image registration and fusion of CT and micro-CT of a sheep’s cochlea

S. Leitner; Berndorf/AT

15:21

B-1028 Evaluation of image quality optimisation using VGC and ordinal regression analysis

F. Zarb, M.F. McEntee, G. Foley, L. Rainford; Moda/MT, Sydney/AU, Dublin/IE
**SS 1806  Functional studies and safety**
Moderators: T. Gleeson; Wexford/UK, E.M. Merkle; Basle/CH

14:00  B-1029  Measuring hepatic functional reserve using low temporal resolution Gd-EOB-DTPA dynamic contrast-enhanced MRI: a comparison study with galactosyl-human serum albumin scintigraphy and indocyanine green retention
K. Saito1, J.R. Ledsam2, S.P. Sourbron2, T. Hashimoto1, Y. Araki1, S. Akata1, R. Tokuuye1; 1Tokyo/JP, 2Leeds/UK

14:09  B-1030  Dynamic enhancement pattern of Gd-EOB-DTPA compared to gadobutrol in patients with HCC
S. Kanter, C. Kloeters, L. Umutlu, N. Sippel, T.C. Lauenstein; Essen/DE

14:18  B-1031  Gadoxetic acid-enhanced hepatobiliary phase MRI and high b-value diffusion-weighted imaging (DWI) in the differential diagnosis between benign to malignant liver lesions
P. Arcuri, G. Federo, S. Roccia, S. Molica, V. Arcuri; Catanzaro/IT

14:27  B-1032  Gadoxetic acid-enhanced MRI of the liver: correlation between Gadoxetic acid uptake and serum hepatic enzymes levels
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14:36  B-1033  MRCP using hepatospecific contrast media (GD-EOB-DTPA) in biliary leaks
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14:54  B-1035  Evaluation of enhancement properties of gadolinium-labelled nanoparticles for contrast-enhanced MRI in rats with experimental liver tumours at 9.4 T
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