Preliminary Programme

The annual meeting of myESR.org
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- SA 11: Emergency radiologists rise to meet growing challenges
- SF 4a: Complex breast imaging scenarios under scrutiny at ECR
- SF 19: Spinal intervention: imaging leads the way
- PC 3: ESR and EANM look to improve diagnostic cooperation
- MC 23: Expert urges radiologists to take an interest in molecular imaging

### Scientific Programme
- ESR meets ... Italy, Egypt & Romania
- Radiation Oncologists
- New Horizons Sessions
- State of the Art Symposia
- Special Focus Sessions
- Professional Challenges Sessions
- Multidisciplinary Sessions

#### Categorical Courses:
- CLICK (Clinical Lessons for Imaging Core Knowledge): Common Clinical Cases
- Emergencies in Neuroradiology
- Urogenital Imaging

#### Mini Courses:
- Organs from A to Z: Lung
- Molecular Imaging
- Controversies in Abdominal Imaging
- The Beauty of Basic Knowledge: Interpretation of the Chest Radiograph
- Joint Course of ESR and RSNA (Radiological Society of North America)

#### Refresher Courses:
- Abdominal and Gastrointestinal
- Breast
- Chest
- Computer Applications
- Molecular Imaging and Contrast Media
- Genitourinary
- Head and Neck
- Interventional Radiology
- Musculoskeletal
- Neuro
- Paediatric

#### Accompanying Sessions:
- ESOR Course on Imaging Biomarkers
- Novel technology that shapes radiology: EIBIR presents Imagine (Workshop)
- 5th Post Processing Face-Off Session
- EIBIR Session
- Radiology Trainees Forum
- RTF Highlighted Lectures
- ESOR Session
- Standards and Audit Session
- Undergraduate teaching: the future of radiology
- (Junior) Image Interpretation Quizzes
- EIBIR/EuroAIM Session
- ENCITE Session
- Euro-BiOImaging Session

#### Plenary Sessions
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- US of the Lower Limb: Groin to Calf

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Dear Colleagues,

The European Congress of Radiology is the annual meeting of the world's largest scientific society, the European Society of Radiology, which accounts for almost 56,000 members. The congress reflects its relevance.

ECR 2012 is the 18th congress of the society since its re-foundation in 1991. The meeting has become a permanent fixture not only for European radiologists, but for an increasing number of radiologists from all continents year after year.

Over the last few decades, our discipline has experienced a happy phase, rich in important technological innovations and clinical applications that guarantee our patients high standards of diagnosis and treatment. In recent years, imaging has undergone tremendous improvement and gained importance in predicting the presence, severity and evolution of many diseases, as well as in evaluating the patients’ response to treatment. But there is still a significant need to increase the number of radiologists acquainted with novel diagnostic technologies and interventional procedures.

Professional refresher training is both an individual need and an institutional duty on the part of the ESR. By offering a variety of Sessions and activities – such as Categorical Courses, Special Focus Sessions, New Horizons Sessions, State of the Art Symposia, Refresher Courses, Interactive Teaching Sessions among others – the congress should prove to be a complete and varied learning and cultural experience, in which everyone can choose what is closest to and more useful for her/his professional needs. Our programme is particularly rich in stimulating options and inspiring themes, in line with the most up-to-date research in radiology.

The ECR aims to continuously improve its quality and the standards of its educational and scientific activities. The innovations introduced every year enhance the educational and scientific contents of the congress and, as in past years, ECR 2012 will feature a number of innovations in order to meet the participants’ needs and expectations.

Here, I would like to highlight some of the innovations introduced this year.

**Some new additions for the ECR 2012 scientific programme**

We added more slots for scientific sessions to our schedule and the congress will start in the morning of the first day (Thursday, March 1).

Two new Scientific Subcommittees on oncologic imaging and emergency radiology have been established. These are two ever expanding fields within radiology and this is the reason why the ESR has recently founded two new European subspecialty societies, respectively
dedicated to them. We have organised Refresher Courses and one State of the Art Symposium on these topics.

One innovation introduced some years ago has been widely appreciated by participants at recent congresses; namely interactivity. This year we will increase the number of interactive sessions, since this is an effective way to encourage attendees to directly contribute to the sessions and to communicate with the speakers.

The new subspecialty refresher courses entitled ‘How I report’ will be interesting especially to young radiologists, who will become aware of how to report in a way that is more understandable and useful to referral physicians.

The Mini Course on ‘Controversies in Abdominal Imaging’ is an interactive session in which experts present divergent opinions on each topic. Additional Mini Courses will be offered, such as ‘Organs from A to Z: Lung’, ‘Essentials in Oncologic Imaging’, which is a joint course of the ESR and RSNA, ‘Molecular Imaging’ and ‘The Beauty of Basic Knowledge: Interpretation of the Chest Radiograph’.

Foundation Courses will focus on ultrasound in order to underline the necessity for radiologists to know and carry out ultrasound scanning better than other specialised physicians, and the importance of including ultrasound in diagnosis, along with other imaging techniques.

Categorical courses are the backbone of the congress. We will see the return of a very successful course that was introduced last year – ‘CLICK’ (Clinical Lessons for Imaging Core Knowledge) – as well as two new courses, respectively focusing on emergencies in neuroradiology and on genitourinary imaging.

The New Horizons Sessions, State of the Art Symposia, and Special Focus Sessions will deal with topics of great interest both in current clinical practice and for future important developments. For the first time a Special Focus Session entitled ‘Assessing novel technology: applications, performances and quality issues’ will be held by radiographers and will take into consideration how radiographers can best face the challenge of novel technologies.

For the benefit of our patients: old and new collaborations

The topic ‘Managing Patients with Cancer’ – an innovation introduced in 2010 – will be dealt with in three multidisciplinary sessions by specialists involved with breast cancer, pancreatic tumours and lymphoma, who will talk about their close cooperation in the hospitals where they work together. Along with education and training, multidisciplinary teamwork is a key element in achieving a substantial reduction in current cancer mortality rates.
One of the Professional Challenges Sessions will be held jointly by the ESR and the International Commission on Radiological Protection (ICRP). Radiologists from different subspecialties all face their own unique challenges but the issue of radiation protection is one that has no boundaries and it has become an extremely important area of focus for the whole discipline. The collaboration with the ICRP, the first of its kind at any ECR, will involve not only the organisation’s own experts, but also representatives from the IAEA, the International Atomic Energy Agency. The other two Professional Challenges sessions will be dedicated to the ‘Diagnosis of inflammatory conditions’ (a joint session of the ESR and EANM, the European Association of Nuclear Medicine), and to the ‘medico-legal challenges for radiologists’, respectively.

The ‘ESR meets … ’ sessions have been fundamental to the congress for years, strengthening cooperation and friendship with colleagues from other countries and partner disciplines. I am very happy that besides my beloved home country, Italy, this year’s guest countries include Romania and Egypt, the latter being the first African guest country ever at the ECR.

The invited partner discipline is actually one of our sister disciplines: radiation oncology. This choice was made with the intention of strengthening our relationship with a discipline in which imaging plays a growing role in defining and assessing patients’ response to treatment. The session will deal with imaging and tailored radiation therapy in rectal cancer. It is my pleasure to welcome radiation oncologists as guests of our congress and I hope this encounter between the ESR and the European Society for Therapeutic Radiology and Oncology (ESTRO) will be the beginning of a new and successful cooperation between the two sister disciplines.

Another novelty this year, called ‘ECR goes to... ’, will help the congress to reach out to radiologists who otherwise would not be able to benefit from its high quality programme. A number of sessions will be broadcast and transmitted in real time over the web, with live online streaming of selected sessions available via the ESR website.

Investing in the future of our discipline

Through several initiatives, such as ESR Rising Stars, Junior Interpretation Sessions, the Radiology Trainees Forum and the ESOR Session, we will give particular attention and space to young radiologists, who are the promising future of the discipline, and to students, in order to make them acquainted with the beauty and interest of our world and to attract them to radiology.

It would not have been possible to realise this programme you are about to read, and which hopefully will encourage you to join us in Vienna from March 1–5, 2012, without the precious, constant and enthusiastic support and assistance of the many people taking part in the Programme Planning and Subspecialty Committees. My deep and sincere thanks goes to them and to the ESR Office, an excellent and professional organisation and an amazing team.

The European Congress of Radiology is not only an important occasion for scientific exchange and professional training. It has been and will continue to be the annual meeting of European radiologists with colleagues from all over the world, who are becoming more and more numerous at the ECR, and it is rightly considered as one of the most important radiological events in the world.

I look forward to seeing you in Vienna and to enjoying the congress and the social events with you!

Lorenzo Bonomo
ECR 2012 Congress President
Michelangelo's *The Last Judgment*, section of the Sistine Chapel fresco (1535–1541).
The Colosseum in Rome
# Your Timeline to ECR 2012

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Event</th>
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<tbody>
<tr>
<td>March 2011 – December 31, 2011</td>
<td>All-year Online Abstract Submission to EPOS™</td>
</tr>
<tr>
<td>March 2011 – January 31, 2012</td>
<td>Online Submission of Accepted Exhibits to EPOS™</td>
</tr>
<tr>
<td>from September 1</td>
<td>Online Registration Open</td>
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<tr>
<td>November 12 – December 20</td>
<td>Registration Middle Fee</td>
</tr>
<tr>
<td>from December 21</td>
<td>Registration Late Fee</td>
</tr>
<tr>
<td>from October 1</td>
<td>Travel &amp; Accommodation Service Open</td>
</tr>
<tr>
<td>from November 12</td>
<td>Participate from Home Registration Open</td>
</tr>
<tr>
<td>March 1–5</td>
<td>ECR 2012 (Thursday to Monday)</td>
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## Congress Venue

Austria Center Vienna  
Bruno Kreisky Platz 1  
1220 Vienna, Austria

## Congress Language

English

## CME Accreditation

Each ECR delegate receives a 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). ECR 2012 is expected to be designated for a maximum of 27 hours of European external CME credits.

## Facts & Figures 2011

- 20,120 Participants  
- 96 Countries  
- 270 Scientific and Educational Sessions  
- 3,000 Scientific and Educational Exhibits  
- 870 Scientific Papers  
- 533 Invited Lectures  
- Fully Electronic Scientific Exhibition  
- Industrial Exhibition  
  - 307 exhibitors  
  - 26,000 m²

## Scientific and Educational Programme

- 3 Honorary Lectures  
- 1 Opening Lecture  
- 4 ESR meets Sessions  
- 2 Image Interpretation Quizzes  
- 3 New Horizons Sessions  
- 3 State of the Art Symposia  
- 14 Special Focus Sessions  
- 3 Professional Challenges Sessions  
- 3 Multidisciplinary Sessions: Managing Patients with Cancer  
- 3 Categorical Courses (18 Sessions)  
- 5 Mini Courses (20 Sessions)  
- 75 Refresher Courses  
- 1 Foundation Course: More About Ultrasound (6 Sessions)  
- 14 Interactive Teaching Sessions  
- 1 e-Learning Centre with Self Assessment Test  
- 102 Scientific Sessions  
- 5 Students Sessions  
- 3 Rising Stars Basic Sessions  
- 1 RTF – Radiology Trainees Forum: Highlighted Lectures  
- 1 EFOMP Workshop  
- 1 ESOR Session  
- 1 Standards and Audit Session  
- 5 EIBIR Sessions & Workshop  
- 1 Undergraduate Teaching Session  
- 1 Post Processing Face-Off Session  
- 2 Update Your Skills (Practical Courses)  
- Satellite Symposia & Industry Hands-on Workshops
### Thursday, March 1

<table>
<thead>
<tr>
<th>Time</th>
<th>Activities</th>
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<tbody>
<tr>
<td>14:00</td>
<td>Opening Ceremony</td>
</tr>
<tr>
<td>15:30</td>
<td>Presentation of Honorary Members</td>
</tr>
<tr>
<td>16:00</td>
<td>E³ FC Self Assessment Test</td>
</tr>
<tr>
<td>17:30</td>
<td>Siemens and Bayer Pharma Symposium</td>
</tr>
<tr>
<td>18:00</td>
<td>Rising Stars Basic Session</td>
</tr>
<tr>
<td>19:15</td>
<td>Student Session</td>
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### Friday, March 2

<table>
<thead>
<tr>
<th>Time</th>
<th>Activities</th>
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<tbody>
<tr>
<td>10:00</td>
<td>State of the Art Symposium</td>
</tr>
<tr>
<td>11:00</td>
<td>Siemens and Bayer Pharma Symposium</td>
</tr>
<tr>
<td>12:00</td>
<td>E³ FC Self Assessment Test</td>
</tr>
<tr>
<td>13:00</td>
<td>Rising Stars Basic Session</td>
</tr>
<tr>
<td>14:00</td>
<td>Student Session</td>
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### Saturday, March 3

<table>
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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>10:00</td>
<td>State of the Art Symposium</td>
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<tr>
<td>11:00</td>
<td>Siemens and Bayer Pharma Symposium</td>
</tr>
<tr>
<td>12:00</td>
<td>E³ FC Self Assessment Test</td>
</tr>
<tr>
<td>13:00</td>
<td>Rising Stars Basic Session</td>
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<tr>
<td>14:00</td>
<td>Student Session</td>
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<tr>
<th>Time</th>
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<tbody>
<tr>
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<td>State of the Art Symposium</td>
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<tr>
<td>11:00</td>
<td>Siemens and Bayer Pharma Symposium</td>
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<tr>
<td>12:00</td>
<td>E³ FC Self Assessment Test</td>
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<tr>
<td>13:00</td>
<td>Rising Stars Basic Session</td>
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<tr>
<td>14:00</td>
<td>Student Session</td>
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<tr>
<td>10:00</td>
<td>State of the Art Symposium</td>
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<tr>
<td>11:00</td>
<td>Siemens and Bayer Pharma Symposium</td>
</tr>
<tr>
<td>12:00</td>
<td>E³ FC Self Assessment Test</td>
</tr>
<tr>
<td>13:00</td>
<td>Rising Stars Basic Session</td>
</tr>
<tr>
<td>14:00</td>
<td>Student Session</td>
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Online Registration

Registration Fees
(inclusive 10% VAT)

<table>
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<tr>
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<th>Middle Fee</th>
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<tbody>
<tr>
<td>Full Fee Non-Member</td>
<td>€ 835</td>
<td>€ 990</td>
</tr>
<tr>
<td>ESR Full Member</td>
<td>€ 490</td>
<td>€ 650</td>
</tr>
<tr>
<td>ESR Associate Member</td>
<td>€ 625</td>
<td>€ 880</td>
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<tr>
<td>ESR Corresponding Member</td>
<td>€ 625</td>
<td>€ 880</td>
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<tr>
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<td>€ 420</td>
<td>€ 570</td>
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<tr>
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<td>€ 490</td>
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<tr>
<td>Hospital Manager</td>
<td>€ 630</td>
<td>€ 880</td>
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<tr>
<td>Nurse</td>
<td>€ 280</td>
<td>€ 430</td>
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<tr>
<td>Radiographer</td>
<td>€ 280</td>
<td>€ 430</td>
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<tr>
<td>Radiographer (academic degree) Non-Member</td>
<td>€ 835</td>
<td>€ 990</td>
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<tr>
<td>Radiographer (academic degree) Member</td>
<td>€ 625</td>
<td>€ 880</td>
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<tr>
<td>Participate from home</td>
<td>€ 320</td>
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<tr>
<td>Oral Presenter Member</td>
<td>€ 150</td>
<td>-------</td>
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<tr>
<td>Student</td>
<td>free</td>
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<tr>
<td>Single Day Ticket</td>
<td>onsite only</td>
<td>€ 290</td>
</tr>
</tbody>
</table>

Registration as a Member: to qualify for reduced member registration fees for ECR 2012, ESR Membership fees for 2011 must have been settled by August 31, 2011. All other participants will have to register as non-members.

Please note the relevant ECR Registration Deadlines:

<table>
<thead>
<tr>
<th></th>
<th>Middle Fee:</th>
<th>Late Fee:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>November 12 - December 20, 2011</td>
<td>from December 21, 2011 onwards</td>
</tr>
</tbody>
</table>

Public transportation

Tickets for public transportation in Vienna, valid for the duration of the whole of ECR 2012, can be booked during online registration.

Insurance

The ESR offers all pre-registered participants the option of taking out a cancellation policy with our partner ‘Europäische Reiseversicherung’. The insurance fee depends on the selected ticket and can only be booked during online registration.

Travel & Accommodation Service

Our Travel & Accommodation Service is now open.
Book your accommodation online at travelservice.myESR.org or contact travelservice@myESR.org to organise your stay in Vienna!

For further information, please visit www.myESR.org or contact registration@myESR.org
ESR meets ... Sessions
ESR meets Egypt

Imhotep the great Egyptian pharaoh of the 27th century BC (2655–2600 BC) is recognised as the founder of medicine and the world’s first doctor. Imhotep diagnosed and treated over 200 diseases and also performed surgery and extracted medicine from plants. He knew the position and function of the vital organs and circulation of the blood system. The Encyclopaedia Britannica says, “The evidence afforded by Egyptian and Greek texts supports the view that Imhotep’s reputation was much respected in early times”. Ancient Egyptian physicians used many methods to diagnose pregnancy and to ascertain the gender of the embryo before birth, and they were the first to use Arabian gum in birth control. It is interesting and surprising to note that the diagnostic methods currently used by medical professions are not that different from those used by ancient Egyptian physicians many centuries ago.

The Egyptian Society of Radiology and Nuclear Medicine (ESRNM) was established in the early sixties as a combined society of diagnosis, radio and chemotherapy as well as nuclear medicine, headed by Prof. Mohamed Abdel Wahab Mahmoud. The society is one of the oldest radiological societies in the Middle East and Africa and in 1989 it became a member of the International Society of Radiology.

In 2007 the ESRNM became a member of the Pan Arab Association of Radiological Societies and took the opportunity to host the 2nd Pan Arab Radiology Congress, which is considered one of the most successful meetings, with about 4,000 attendees. Further, the ESRNM will host the 2nd African Society of Radiology (ASR) meeting from April 3 to 6, 2012, to be held at Bibliotheca Alexandria in Alexandria. The ESRNM has also been selected to organise the 28th International Congress of Radiology (ICR) in 2014 in Sharm el Sheikh.

The ESRNM has 3423 active radiologists registered as members of the society and holds two scientific meetings per year covering all subspecialties of radiology. The peer-reviewed Egyptian Journal of Radiology and Nuclear Medicine (EJRNM), established in 1986, is published four times a year. For the last two years Elsevier has been the official publisher, also providing online access.

The society also holds regular teaching courses and workshops covering all subspecialties of diagnostic imaging and organises training courses for radiographers to improve their knowledge and skills. These are conducted in collaboration with the local representatives of radiology vendors in the market.

Lastly, on behalf of ESRNM, I would like to say that we greatly appreciate the ‘ESR Meets’ objectives, which are highly compatible with our own, and we will do our best to make it a very successful and memorable event.

Prof. Dr. Fathy Tantawy
Head of the Egyptian Society of Radiology & Nuclear Medicine (ESRNM)
www.esrnm.org
ESR meets Italy

The Italian Society of Medical Radiology (SIRM) is one of the oldest radiological societies in Europe. It was founded in Milan in 1913 and the first meeting of the SIRM council took place on October 12 of the same year. Today, SIRM represents many thousands of radiologists and is currently the largest medical society in Italy, with around 9,000 members, including full and honorary members, and junior and senior radiologists. Nearly 30% of all members are female and 2,556 are between the ages of 25 and 34. This is a significant number and a good sign for the future of our society and Italian radiology.

The SIRM National Meeting is held every two years and is regularly attended by more than 5,000 participants. The society offers a large variety of courses for Continuing Medical Education (CME) in each radiological subspecialty and also provides the main framework for presenting and exchanging the scientific experience of different hospital and university-based working groups.

SIRM is currently the national member of the European Society of Radiology with the largest number of both institutional and individual affiliated radiologists. At ECR 2012, following a long tradition that has seen many Italian radiologists play a central role in many European subspecialty sections, the Congress President will be an Italian radiologist; Prof. Lorenzo Bonomo, from Rome.

The real scientific and professional core of the society is represented by the subspecialty sections as well as the regional groups, the latter having a prominent professional mission. The subspecialty sections are focused on clinics (abdominal and gastrointestinal, breast, cardiovascular, dental, head and neck, emergency, musculoskeletal, neuroradiology, paediatric, thoracic, urogenital, vascular and interventional radiology), a particular imaging technique (CT, contrast materials, MRI, ultrasound), or other issues (ethics and legal issues, informatics, management and economics, radiobiology, radioprotection). Another important way of developing radiological knowledge is the organisation of multi-centre research projects and methodological courses that help Italian radiologists to update their skills and enter employment.

SIRM has grown a lot during recent years and its own scientific Journal, *La Radiologia Medica*, has seen its impact factor increase regularly, reaching 1.698. In addition, the journal *Il Radiologo* is an official publication of SIRM and the National Union of Radiologists (SNR), as well as the quarterly information journal of AIRO, AIMN, and AINR.

Today, SIRM represents Italy, but it also embraces the entire globe. The council has in fact arranged an international commission, which aims to increase international cooperation. An officer has been allocated to each global region, with the task of maintaining and improving communication and cooperation.

Prof. Antonio Rotondo

President of the Italian Society of Radiology (SIRM)

www.sirm.org
ESR meets Romania

X-rays were used for the first time in Romania, in Iasi, in 1896. The first radiographs were obtained at the end of the same year at Coltea Hospital in Bucharest and shortly after in Iasi and Cluj. In 1926, radiology was officially recognised as a medical specialty in Romania and in 1929 the Romanian Society of Radiology was founded in Bucharest. Between 1945 and 1989 the society acted as a branch of the Medical Scientific Societies Union and was led by some of the most prominent names in Romanian Radiology.

After the 1989 revolution, the society was renamed the Romanian Society of Radiology Imaging and Nuclear Medicine. Professor Serban Georgescu played a major role in organising the society, both on professional and academic levels. He was President of the society between 1998 and 2006. In 2005 nuclear medicine created its own society, leading to another change to the current name; the Romanian Society of Radiology and Medical Imaging (SRIM).

The national structure of the society consists of six local branches, founded in the traditional university centres: Bucharest, Iasi, Cluj, Timisoara, Craiova and Targu-Mures, each of which is led by a local committee. The branches coordinate the scientific activity in their respective areas and have autonomy in developing scientific projects. SRIM holds its own congress every two years and publishes its official journal, *Imaging*, four times a year. The board of the society consists of 33 members, who meet twice a year.

According to European trends in subspecialisation, since 2003 we have developed a Sectional Imaging Group (CT and MRI), the Romanian Society of Senology (breast imaging), the Romanian Society of Musculoskeletal Imaging, the Romanian Society of Neuroradiology and Interventional Radiology, and the Romanian Society of Paediatric Radiology, all of which are affiliated with the Romanian Society of Radiology and Medical Imaging. These societies are totally autonomous, led by their own boards, and their presidents are on the SRIM Board.

The Romanian Society of Radiology and Medical Imaging is the body responsible for providing postgraduate training in diagnostic radiology in Romania. The radiology residency programme in our country requires four years of training. Last year the SRIM board modified the training curricula for residents, so that today it is 100% in line with the European curricula. After completion of four years of training, having passed the final exam, residents become radiodiagnostic specialists and are eligible to apply for a post as a radiologist in the public or private sector.

There are approximately 1,200 radiologists and 250 radiology residents in Romania, with the number of posts in the public sector controlled by the Ministry of Health. The ratio of radiology specialists to population is low in comparison to most EU countries and thus the number of studies performed by individual radiologists is extremely high. The private sector is growing rapidly and is extremely aggressive, but on the other hand, it offers much more attractive salaries and better conditions.

The SRIM board is actively working on the following issues:

- To increase the number of specialists and residents in radiology according to need
- To plan the replacement of old radiological equipment in a clear way according to locally available resources
- To gradually increase the salaries for our colleagues on the basis of the importance of their work and responsibility
- To develop and implement new healthcare programmes (e.g. breast cancer screening)
- To develop coherent measures to educate and inform the population concerning radiological procedures so as to set realistic expectations

Radiology remains a strong specialty in Romania which attracts some of the brightest graduates each year, making competition for residencies very intense. We are looking forward to better integrating Romanian radiology into Europe and building strong partnerships with the ESR and all other European radiological societies.

Prof. Dr. Dragos Negru
President of the Romanian Society of Radiology and Medical Imaging (SRIM)
www.srim.ro
Friday, March 2, 10:30–12:00
ESR meets Italy
EM 1 From morphology to function

Presiding:
L. Bonomo; Rome/IT
A. Rotondo; Naples/IT

• Introduction:
  Italian Society of Radiology (SIRM) in the third millennium
  A. Rotondo; Naples/IT

• Outlook and clinical perspectives of MDCT coronary angiography
  M. Galia; Palermo/IT

• Interlude: Imaging of the skeletal muscle pathology after the 2006 Winter Olympic Games
  C. Faletti; Turin/IT

• Experimental study with 7T-micro MRI: in vivo rat model of intestinal infarction
  R. Grassi; Naples/IT

• Interlude: Reasons to come to the 45th SIRM National Congress
  C. Faletti; Turin/IT

• MR contrast agents for liver imaging
  A. Giovagnoni; Ancona/IT

• Panel discussion

Friday, March 2, 16:00–17:30
ESR meets Radiation Oncologists
EM 2 Imaging and tailored radiation therapy in rectal cancer

Presiding:
L. Bonomo; Rome/IT
V. Valentini; Rome/IT

• Chairman’s introduction
  L. Bonomo; Rome/IT
  V. Valentini; Rome/IT

• Treatment-oriented staging
  G. Brown; Sutton/UK

• Treatment tailored according to staging
  K. Haustermans; Leuven/BE

• Response evaluation by imaging
  R.G.H. Beets-Tan; Maastricht/NL

• Treatment of rectum cancer tailored according to longitudinal imaging and multifactorial predictors
  P. Lambin; Maastricht/NL

• Panel discussion

Saturday, March 3, 10:30–12:00
ESR meets Egypt
EM 3 Oncologic imaging and paleoradiology in Egypt: the past, present and future

Presiding:
M. Abdel Wahab; Cairo/EG
L. Bonomo; Rome/IT

• Introduction
  M. Abdel Wahab; Cairo/EG

• Imaging of urinary bladder cancer
  T. El-Diasty; Mansoura/EG

• Interlude: Imaging of urinary diversion
  S. Hanna; Cairo/EG

• MDCT of Royal Egyptian Mummies: secrets unveiled
  A. Selim; Cairo/EG

• Interlude: Ancient Egyptian medicine
  S. Hanna; Cairo/EG

• Interventional management of HCC: Egyptian experience
  A. El-Dorry; Cairo/EG

• Interlude: Discover Egypt’s charm
  S. Hanna; Cairo/EG

• Egyptian women’s health outreach programme:
yesterday, today and tomorrow
  D. Salem; Cairo/EG

• Panel discussion

Sunday, March 4, 10:30–12:00
ESR meets Romania
EM 4 Oncology imaging: breast and liver

Presiding:
L. Bonomo; Rome/IT
G. Iana; Bucharest/RO

• Introduction: Romanian radiology today
  G. Iana; Bucharest/RO

• Hepatic nodules in cirrhosis
  I.G. Lupescu; Bucharest/RO

• Interlude: The beginning of Romanian radiology
  M. Buruian; Targu-Mures/RO

• Interventional treatment in liver malignancies
  B. Popa; Bucharest/RO

• Interlude: Ten reasons to see Romania
  D. Negrui; Iasi/RO

• Imaging and guided biopsy in breast malignancies
  M. Lesaru; Bucharest/RO

• Panel discussion
Liver imaging: virtuality improves reality

By Mélisande Rouger

The marriage of imaging and computer science has led to an ingenious offspring, which benefits first and foremost the liver. As imaging modalities and computers have reached unprecedented levels of precision, radiologists can now acquire very detailed information that they can use in 3D models within minutes of an examination, considerably speeding up treatment planning.

So-called virtual imaging is improving therapy outcomes dramatically, and its role will probably increase in the future. A dedicated session will review all the progress made from the detection and characterisation of liver disease to treatment planning at ECR 2012.

Imaging the liver can still be a complex exercise, starting with the difficulty of isolating this organ surrounded by many other tissues. But, on the other hand, liver imaging has never been so accessible to radiologists, as every modality is now used for diagnostic and interventional purposes and the refinement of US, MR, CT and PET has also made them increasingly reliable.

Knowledge of the latest advances in the detection and characterisation of liver disease has thus become mandatory for all radiologists, according to Professor Carlo Bartolozzi, Chairman of the Radiology Department at the University of Pisa, Italy. “Since we can precisely diagnose so many benign and malignant pathologies, liver imaging is becoming as important to radiologists as brain or heart imaging,” he said.

An increasing number of molecular tools are currently being developed, and contrast media products targeting specific cells are multiplying. Biomarkers to assess liver functions or tumour activity and response have also become very popular. Every radiologist should know about these developments, even if they may not yet use these technologies, Bartolozzi believes.

Once the data has been collected during the examination, the post-processing phase can begin. Using advanced segmentation tools, every type of tissue can be highlighted or just displayed in the background, thus providing additional information and helping to display liver anatomy. “This is a very significant progression. Five years ago it sometimes took us hours to complete a 3D model. Now, thanks to the advances made in computer science, we only need a few minutes to obtain the results we are interested in,” he explained.

Virtual models are routinely used in interventional procedures. Radiologists have to know the size and volume of the lesion, and its precise location and relationship with the surrounding tissue.
For instance, with an endovascular approach, they have to know the precise vascular mapping of both the lesion and the liver beforehand in order to place the catheter correctly. For a percutaneous approach such as RFA (radiofrequency ablation), they can plan and simulate the intervention by introducing a virtual needle into the liver on-screen to avoid unnecessary damage of vessels and other organs.

“We very often use the virtual approach with interventional procedures because it considerably reduces the risk for the patient,” Bartolozzi said.

These models may help not only interventional radiologists but also surgeons, who need to know the size and precise location of the lesion before operating on a patient. In order to plan the operation, having information about the lesion and its surroundings before surgery is priceless. Virtual models may also help surgeons to practise their procedure before actually carrying it out.

Laparoscopy is a typical example of how imaging can help guide surgery. The problem with this approach is that the view surgeons have is very limited, because of the small size of the laparoscopic camera. “Surgeons need imaging to have the entire view of the abdomen, to improve the safety of the minimally invasive surgical treatment. A good solution is to have a combination of both the live laparoscopic view and the preoperative or intraoperative images”, he explained.

Considering the benefit brought by virtual imaging, more applications should become available soon. More cooperation between radiologists, surgeons and computer scientists should thus be encouraged, and the presence of computer expert Navir Navab, from Munich, during the ECR session clearly shows that this is already happening.

The growing contribution of computer science to medicine will not require the radiologist or the surgeon to eventually become computer experts themselves. The future will probably be based on a multidisciplinary integration, which will provide surgery with the increasing assistance of advanced imaging and computer technology.
New Horizons Sessions

Friday, March 2, 08:30–10:00
NH 4   Liver imaging: reality and virtuality

- Chairman’s introduction
  C. Bartolozzi; Pisa/IT
- Acquisition and display of liver ‘reality’
  L. Martí-Bonmatí; Valencia/ES
- Postprocessing and modelling
  D. Caramella; Pisa/IT
- Planning and simulation
  O. Ratib; Geneva/CH
- Intraoperative functional imaging: visualisation and navigation for liver surgery
  N. Navab; Munich/DE
- Panel discussion:
  The ultimate challenge: virtual technology for real medicine

Saturday, March 3, 08:30–10:00
NH 8   Ablation beyond radiofrequency

- Chairman’s introduction
  J.I. Bilbao; Pamplona/ES
- Microwave ablation
  T. de Baère; Villejuif/FR
- Irreversible electroporation
  T.K. Helmerger; Munich/DE
- High intensity focused ultrasound (HIFU)
  F. Orsi; Milan/IT
- Stereotactic body radiation therapy (SBRT)
  J.J. Aristu; Pamplona/ES
- Panel discussion:
  Which method should then be used for tumoural ablation?

Sunday, March 4, 14:00–15:30
NH 14  New insight into vascular wall

- Chairman’s introduction
  M.F. Reiser; Munich/DE
- Molecular imaging of atherosclerosis: ready for prime time?
  M. Schäfers; Münster/DE
- Non-invasive imaging of the vulnerable atherosclerotic plaque
  J.H. Gillard; Cambridge/UK
- Atherosclerosis: a reversible disease?
  T. Saam; Munich/DE
- Panel discussion:
  Predictive values of imaging markers of atherosclerosis: where do we stand?
State of the Art
Symposia
Based on the low average age of trauma patients, more years of lifespan are lost due to trauma than to cardio-vascular diseases, the leading global cause of death. Prompt medical treatment in the emergency department during the so-called golden hour can be a key factor in minimising this loss of life, and the selection of that treatment often relies on a speedy and accurate diagnosis from the emergency radiologist, whose skills are in increasing demand.

The rapid rise of emergency radiology has not been overlooked by the ECR programme planning committee, who have seen fit to introduce it as a new category at ECR 2012, with two brand new refresher courses and a state of the art session dedicated to it. The latter will take a close look at the challenging nature of the emergency radiologist’s role as an important part of the team that handles trauma cases in most institutions. Readily accessible equipment, robust diagnostic protocols and quick decision making are all essential to a successful outcome, and with enormous rises in the number of emergency room visits that include CT examinations, effective management of polytrauma patients is a major task for radiologists.

“There has been a tremendous increase in the use of radiological methods in every emergency department in the developed world over the last decade,” explained session Chairman Assoc. Prof. Dr. Ulrich Linsenmaier, from Ludwig Maximilians University in Munich, Germany. “In a 15-year period we have seen an annual growth rate of 16% in the number of emergency department visits with CT, an exponential increase with a doubling time of only four and a half years. This has presented radiologists with a great challenge, because we need to deliver a constant high quality of service with very demanding high-end, technical equipment,” he added.

This dramatic growth in the use of diagnostic imaging, especially CT, in emergency departments is a clear sign of the growing workload of emergency radiologists, but, depending on the hospital, ultrasound and interventional radiology can also be called into play in the diagnostic
work-up and treatment of polytrauma patients. Knowing which course to take in any given situation is one important part of efficient emergency radiology, but having easy access to the necessary equipment is just as vital. The location of emergency radiology facilities can have a substantial bearing on successful treatment and in many modern institutions emergency radiology is already an integrated part of an interdisciplinary emergency department, in some cases with CT scanners located next to or inside the emergency theatres.

"The principle is to deliver the scanner to the patient, rather than referring them to another department yards away. The best solution is that the scanner, as well as, ideally, equipment for interventional therapy procedures, should be located very close or next door. An integrated department improves patient handling, we avoid long transfers and we shorten the time used in this golden hour," said Linsenmaier. "But it is equally important for the actual members of the emergency team to be closely integrated," he noted.

Indeed the emergency radiologist’s ability to manipulate machines and read images should be augmented by flawless collaboration with other emergency doctors for successful patient management, especially when time is of the essence. Good communication skills and understanding of clinical background to the medical cases they deal with are also indispensable.

Despite its growing significance as a subspecialty, European emergency radiology has lacked its own society until recently. The European Society of Emergency Radiology (ESER) was officially founded on October 1, 2011 and will be the first European professional and scientific group in this particular field, which will hopefully lead to even further advances.

"This session should be relevant to radiologists in training and all general radiologists as well. Many of them already do emergency radiology because they have similar increases in their own departments. Everyone should be aware of the increasing significance of emergency radiology. It’s one of the fastest growing fields with an enormous clinical importance," added Linsenmaier.
# State of the Art Symposia

**Friday, March 2, 08:30–10:00**

<table>
<thead>
<tr>
<th>SA 4</th>
<th>Imaging during pregnancy</th>
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| • Chairman's introduction  
  M. Bekiesińska-Figatowska; Warsaw/PL  
• What are the real risks of radiation and contrast media to the mother and the foetus?  
  D. Prayer; Vienna/AT  
• What are the real risks of US and MRI to the foetus?  
  M. Wozniak; Lublin/PL  
• Polytrauma  
  A. Palkó; Szeged/HU  
• Pulmonary embolism  
  A.R. Larici; Rome/IT  
• Panel discussion:  
  Pregnant women and imaging – how far can we go? |

**Saturday, March 3, 16:00–17:30**

<table>
<thead>
<tr>
<th>SA 11</th>
<th>Polytrauma in the golden hour: the key role of emergency radiologists in the ED when time makes the difference</th>
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| • Chairman's introduction  
  U. Linsenmaier; Munich/DE  
• Ultrasound: why, when, how and by whom?  
  P.-A. Poletti; Geneva/CH  
• Whole body MDCT for trauma: protocols and findings  
  M. Körner; Munich/DE  
• Interventional radiology as life-saving procedure  
  G. Carrafiello; Varese/IT  
• Panel discussion:  
  Is the emergency radiologist the ‘captain of the ship’ in the management of major trauma? |

**Sunday, March 4, 16:00–17:30**

<table>
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<tr>
<th>SA 15</th>
<th>Imaging hip joint replacement</th>
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| • Chairman's introduction  
  V.N. Cassar-Pullicino; Oswestry/UK  
• Radiography and ultrasound: how far can you go?  
  S. James; Birmingham/UK  
• CT: when should you do it and how?  
  A. Blum; Nancy/FR  
• MRI: can it replace the above?  
  S.J. Eustace; Dublin/IE  
• Panel discussion:  
  Can we define an algorithm for assessment of the painful hip replacement? |
Special Focus
Sessions
Imaging the breast comes with benefits and risks to the patient, and some situations are particularly liable to cause distress if not addressed beforehand. Screening women under 50 and imaging dense breasts may lead to problems if both the radiologist and the patient do not fully understand the risks associated with imaging as well as the benefits that it could bring. A panel of experts will inform radiologists about how to deal with potential hazards, during a dedicated session at ECR 2012.

Screening women under 50 will undoubtedly pick up cancers but the benefits to the population remain relatively unclear. For instance, do the benefits apply to women when they are 40 or when they are just under 50?

Two things are certain though: screening is much more likely to lead to a large number of women being recalled unnecessarily, and the younger women are, the lower the chances are of finding cancer. “The balance of potential good versus potential risk and distress is much less clear cut in younger women than in the older ones, and the reduction in mortality in younger women is also much more modest. The downside is that you bring back a lot of women unnecessarily because they don’t have cancer, and potentially you will perform biopsies on a lot more healthy women to find only a small number of cancers,” said Dr. Matthew Wallis from Cambridge University, U.K.

Radiologists need to understand and balance risks versus benefits, and to explain them to the individual patient. Without both parties understanding those two key issues there is likely to be confusion on both sides, with patients probably having false expectations and ending up disappointed when things do not go as expected.

Unnecessary, stressful and costly examinations could be avoided by addressing these problems, but they are not the easiest to tackle, according to Wallis.

“These are difficult concerns that most people don’t want to discuss. It is very easy as a radiologist looking after a patient to just say: “Let’s do another test”. One can use US, tomosynthesis, MR, and each of these additional tests can reassure doctors that they are doing everything for that individual patient. But each of those tests comes with a benefit and a risk to the patient. Every time you do another test, the risk is that you will find something else that is not necessarily cancer,” he said.

Imaging breasts with a high percentage of mammographic density (PMD), commonly called ‘dense’ breasts, is another challenge for radiologists. Breasts with high PMD are difficult to interpret on mammography, and therefore one is more likely to miss cancer.
The cancer risk associated with density cannot be explained by the masking of cancer by dense tissue, as in fatty breasts, but by the composition of the breast itself, Dr. Chantal Van Ongeval, from Leuven, Belgium, pointed out. "Researchers found that dense tissues contain much more cells in the parenchyma or connective tissues than normal tissue. They also think that some biological processes in the connective tissue influence the epithelial cells, and that they have a higher risk of turning into malignant cells," she said.

Asymptomatic patients with breasts with a high PMD are 6 to 8 times more likely to develop cancer than women with fatty breasts. This is higher than other risk factors – for instance having no children or a high body mass index, or having had an early start to menstruation. Therefore the temptation to do further tests is high, but it is not necessarily useful.

"This would help you find more cancers, but each of those additional tests will also potentially bring more false positives," Wallis warned.

To avoid further unnecessary examination, one needs to understand the problems related to dense tissue interpretation. “You don't see opacities related to mass lesions in dense breasts but you can see microcalcifications. Also you don't see diffuse changes that you sometimes see in diffuse infiltrating tumours," Van Ongeval said.

One also needs to choose the safest and most effective investigation method. This choice may depend on the patient’s situation but also on the radiologist’s opinion, based on his/her own experience.

“We don’t do a lot of Doppler, elastography or other contrast-enhanced techniques. If we see a suspicious lesion, we directly perform biopsy. And I prefer this above all expensive or newer techniques. I prefer to have a good quality US and then a biopsy. The place of tomosynthesis or dual energy techniques in the investigation of dense breasts is not clear yet," she said.

The additional cancer risk linked to ‘dense’ breasts is nevertheless small, and the risk of missing it is also relatively low. It is important for radiologists to remember this in order not to alarm patients.

“We need to be able to explain that to women without making them anxious about something that we can do nothing about. Currently we don’t have an obvious solution to the problem, so we need to be careful that we’re not raising anxiety without having a solution,” Wallis concluded.
Spinal intervention: imaging leads the way

By Mélisande Rouger

Back problems affect an ever increasing population worldwide. Some benign pathologies may become life-impairing and require much more than pain killers to cope with. More serious conditions, such as bone metastasis, may also be extremely painful and must be adequately treated.

Interventional radiology currently offers a wide range of non-invasive treatments that can really improve patients’ quality of life. Image guidance combined with contrast enhancement is paramount to viewing the progression of the needle in the body, even for procedures involving benign pathologies. Specialists will present the latest developments and indications for IR techniques during a dedicated session at ECR 2012.

Herniated disk is a common pathology that has a strong impact on the patient’s quality of life. The burden on a country’s social and economical systems is very heavy, with repeated and often long work absences. As the disk dissolves itself in two to four years, many treatments are conservative and focus on easing the pain. Anti-inflammatory and other analgesic drugs are usually the first step taken to curb episodic crises.

“We know that time plays in our favour, so we try to treat patients with the least aggressive therapy possible,” said Dr. Xavier Buy, an interventional radiologist at Strasbourg University Hospital in France.

A further step, in case of failure, is to inject anti-inflammatory drugs directly in contact with the nerve, using a needle and image guidance. This procedure, known as infiltration, is the core business of interventional radiology in the treatment of herniated disk. “It is a very safe method,
and one advantage is that the drug only targets the nerve, unlike oral drugs that may affect the whole body,” said Buy, whose team performs an average of a dozen infiltrations per day.

GPs, rheumatologists and other specialists may also carry out infiltrations. However, interventional radiologists using MR, CT or fluoroscopy combined with contrast enhancement can more safely and precisely control the placement of the needle. This last point is absolutely crucial, Buy insists. Without imaging and contrast injection, serious complications may occur, as they recently did in France.

“The French Ministry of Health issued a warning. Five patients received lumbar spine steroid infiltrations and became paraplegic, probably because doctors accidentally injected the drug in the artery that feeds the spinal cord. This artery may exceptionally go very low in the lumbar canal. They blocked it with drugs, and as a result these people can’t walk anymore. This is a tragedy,” he said.

One of the main challenges linked to infiltrations is the absence of procedure standardisation. Image guidance and assessment of the proper needle position for contrast injection should be standard practice, particularly for foraminal injections, but many doctors over the past 40 years have been injecting drugs based on previous imaging alone.

“Control quality is not the same from one procedure to the other, making it difficult to evaluate literature. We think some people did infiltrations the bad way. The standard method would be to systematically control where the needle is by injecting contrast media before corticoids. When performing a foraminal approach, the needle tip should stay in the low and posterior part of the foramen. One millimetre may change it all,” said Buy, who hopes to see standardisation coming soon.

A risk radiologists should be aware of is operating on patients who have already had spine surgery. Surgery scars may complicate the introduction of the needle, as new vessels may communicate with the spinal cord.

“Fibrosis can potentially complicate the procedure. CT, enhanced with contrast media, is the best modality in this case, as it offers more precise control than MR or fluoroscopy for spinal infiltrations,” he said. Infiltrations have very good results in most patients and can be repeated up to four times a year if necessary.

Continued on page 32

Fluoroscopy guided lumbar radiofrequency nucleotomy.

3 a) and b) The RF electrode is inserted coaxially into the disk with to and fro motion to decompress the disk. Caution should be taken to avoid contact with the vertebral endplates.

3 c) and d) 3D flat panel acquisition with multiplanar reconstructions immediately after nucleotomy shows the cavitation of the disk with diffusion of gas towards the herniation.
If the treatment fails, radiologists will then try to decompress the disk by performing a percutaneous nucleotomy, but only in selected patients and for contained disk hernias. Nucleotomy is performed either by introducing a chemical substance able to eat up the disk or using a claw to scratch the disk and release pressure. Thermal techniques using radiofrequency coblation (RFC) or laser are also very efficient. The idea is to pulverise a small volume of the nucleus to provide decompression. Heat also modifies nerve terminals and biochemical factors inside the disk, so it has an analgesic effect. “Thermal techniques are the ones we prefer using. They have both a mechanical and thermal effect,” Buy said.

The difficulty is in placing the heat source right at the heart of the disk, so as not to damage the surrounding tissues or vertebrae. Image guidance is also required, most often with fluoroscopy, the “most comfortable technique to adequately place the laser and RFC fibres in the disk,” according to Buy.

Radiologists should remember they should not burn the whole disk but just a small part. “The risk for arthrosis would be too high if the whole disk were to be removed, because vertebrate plates would rub against each other.”

One should also not underestimate the sufferers’ psychological distress, which pushes them to ask for radical methods. “We often need to calm down impatient patients, who want to get rid of the whole disk, and make them understand that a less invasive therapy such as infiltration might be more appropriate,” he said.

Tumour ablation is a major application for image-guided spine interventions, whether they are curative or palliative treatments.

Thermotherapy uses image guidance and thermometers placed around the tumour to make sure the surrounding tissues are not exposed to 45 degrees Celsius, a temperature above which they might start to get damaged. Radiofrequency ablation (RFA), microwaves or lasers are used in combination with CT, fluoroscopy or MR monitoring, and they target the tumour with 55-degree-heat.
More and more centres also offer cryotherapy, in which the tumour is frozen using gas decompression. Argon is the most commonly used gas, and its temperature can sink to as low as -183 degrees. Strasbourg University Hospital was the first European centre to ever use cryotherapy in interventional radiology in 2007.

“Cold is very interesting, and its big advantage over heat is that ice is visible. It is clearly identifiable on MR or CT scans, so it gives an additional precision to the procedure,” said Prof. Afshin Gangi from the University Hospital Strasbourg, a leading expert in IR treatment of bone metastases.

Fluoroscopy, CT and MR may be used to guide both techniques. MR thermometry is especially good with cold, and gives a signal up to 15 degrees. “One does not need to place a thermometer inside, which is quite an advantage. And of course it is non-ionising,” Gangi said. Fluoroscopy is often coupled with CT. This alliance is particularly efficient for very small masses.

Whatever the modality, image-guided procedures are increasingly being performed not only to destroy tumours but also to ease the pain. Radiologists are increasingly called upon to treat symptoms and tumour-induced consequences, such as pathologic fractures. They may inject acrylic cements to both consolidate the vertebra and ease the pain. This might be a softer treatment for fragile patients than surgery, according to Gangi.

“Surgery is usually the first treatment to remove all metastases but it might prove complicated in fragile patients. Vertebroplasty is expensive but crucial in palliative treatment of metastatic vertebra, and we perform this on a very large number of patients. Then we might perform RFA or laser or cryotherapy,” he said.

Interventional radiology, surgery and radiotherapy are all key treatments in oncology. The multidisciplinary approach guarantees that patients are given the best chance possible.
Special Focus Sessions

Thursday, March 1, 16:00–17:30
SF 3  Neuroimaging in neonates, infants and children: when to do what

- Chairman's introduction
  A. Rossi; Genoa/IT
- What is the potential and role of brain ultrasound in the MRI era?
  M.I. Argyropoulou; Ioannina/GR
- When is MRI of the brain indicated?
  P.D. Griffiths; Sheffield/UK
- What is the role of advanced post-processing of MRI images?
  P.C. Maly Sundgren; Lund/SE
- Panel discussion:
  Paediatric neuroimaging: what should the general radiologist know?

Friday, March 2, 08:30–10:00
SF 4a  Controversies in breast imaging

- Chairman's introduction
  M.G. Wallis; Cambridge/UK
- Should we screen women under 50?
  A. Evans; Dundee/UK
- How to image the dense breast
  C. Van Ongeval; Leuven/BE
- What to do with false positive MR imaging
  L. Martincich; Candiolo/IT
- Panel discussion:
  How do we manage/minimise the consequences of our uncertainties?

Friday, March 2, 08:30–10:00
SF 4b  Diagnosis and management of acute vascular abdominal problems

- Chairman's introduction
  A. Nicholson; Leeds/UK
- Acute arterial and venous ischaemia - presentation, management and outcome
  L. Boyer; Clermont-Ferrand/FR
- Acute non variceal upper gastrointestinal haemorrhage: the evidence base for and role of intervention
  S. McPherson; Leeds/UK
- Management of abdominal haemorrhage in the severely injured trauma patient
  O.M. van Delden; Amsterdam/NL
- Panel discussion:
  Is there sufficient evidence to favour image-guided intervention over open surgery in abdominal vascular emergencies and other questions?

Friday, March 2, 16:00–17:30
SF 7a  My most beautiful mistakes

- Chairman's introduction
  M. Zins; Paris/FR
- Breast
  T.H. Helbich; Vienna/AT
- MSK
  B. Vande Berg; Brussels/BE
- Neuro
  P.C. Maly Sundgren; Lund/SE
- Panel discussion:
  What have we learned from our mistakes?
Special Focus Sessions

**Friday, March 2, 16:00–17:30**

SF 7b  Assessing novel technology: applications, performance and quality issues

- Chairman’s introduction
  C. Vandulek; Kaposvár/HU
  M. Maas; Amsterdam/NL
- The impact of radiographers on performance and quality issues arising with novel technology
  F. Girard; Pont de Roide/FR
- How to keep up with new technique application: a continuous education programme for radiographers in action
  C.A. Tipker-Vos; Amsterdam/NL
- The role of radiographers in respect to applications of novel technologies
  B. Bailey; Manchester/UK
- Panel discussion:
  How can radiographers best face the challenge of novel technologies?

**Saturday, March 3, 08:30–10:00**

SF 8b  Cardiac imaging: from diagnosis to prognosis

- Chairman’s introduction
  M.R. Rees; Gwynedd/UK
- Coronary calcium scoring: is it good for prognosis assessment?
  R. Vliegenthart; Groningen/NL
- Coronary CT angiography to predict future events
  F. Cademartiri; Parma/IT
- MRI predictors in coronary artery disease
  J. Bogaert; Leuven/BE
- Panel discussion:
  Cardiac CT and MRI vs traditional prognostic predictors: what is the evidence?

**Saturday, March 3, 08:30–10:00**

SF 8a  Peritoneal carcinomatosis

- Chairman’s introduction
  P.K. Prassopoulos; Alexandroupolis/GR
- What does the surgeon want to know?
  E. de Bree; Iraklion/GR
- MDCT vs MRI: advantages and drawbacks
  F. Iafrate; Rome/IT
- What is the added value of PET/CT?
  G. Antoch; Düsseldorf/DE
- Panel discussion:
  Optimised imaging algorithms in peritoneal carcinomatosis

**Saturday, March 3, 16:00–17:30**

SF 11  How can I be sure that I’m dealing with HCC?

- Chairman’s introduction
  F. Caseiro-Alves; Coimbra/PT
- Wash-in/wash-out:
  what do they represent?
  L. Grazioi; Brescia/IT
- Equivocal nodules: how to interpret and clinical implications
  V. Vilgrain; Clichy/FR
- HCC staging and patient stratification: what’s new?
  C. Ayuso; Barcelona/ES
- Residual tumour and tumour recurrence: how to evaluate?
  D.J. Breen; Southampton/UK
- Panel discussion:
  How far can we go with non-invasive imaging for diagnosis and staging of HCC?
Sunday, March 4, 08:30–10:00
SF 12 Radiology on the road: working when you are away from home

- Chairman’s introduction
  L. Donoso; Barcelona/ES
- Teleradiology in 2012: growing or shrinking in importance
  E.R. Ranschaert; ’s-Hertogenbosch/NL
- Use of PDAs and other hand held devices in radiology: beyond the head?
  O. Ratib; Geneva/CH
- Legal issues of teleradiology and portable reporting
  R. FitzGerald; Wolverhampton/UK
- Panel discussion:
  How will we be viewing images in 20 years’ time?

Sunday, March 4, 14:00–15:30
SF 14 HIV/AIDS update 2012

- Chairman’s introduction:
  Living with AIDS – numbers and facts
  M.M. Thurnher; Vienna/AT
- Clinical challenges in HIV and CARTera
  A. Rieger; Vienna/AT
- HIV and brain
  M.M. Thurnher; Vienna/AT
- Understanding the role of immune activation and restoration in HIV infection
  A.G. Osborn; Salt Lake City, UT/US
- Changing spectrum of HIV-related diseases in the chest: 30 years later
  T. Franquet; Barcelona/ES
- Panel discussion:
  How the shift in the natural history and clinical manifestation of HIV is changing my imaging diagnosis
Monday, March 5, 08:30–10:00  
SF 16a  The role of advanced imaging in musculoskeletal neoplasms

- Chairman's introduction:  
  J.C. Vilanova; Girona/ES
- Advanced MR techniques  
  J.L. Bloem; Leiden/NL
- PET/CT and scintigraphy  
  J.R. García; Barcelona/ES
- Sonography: diagnostic developments  
  C. Martinoli; Genoa/IT
- Panel discussion:  
  The role and guidelines of the imaging techniques on the management of MSK neoplasms

Monday, March 5, 08:30–10:00  
SF 16b  How should we image the patient with haematuria?

- Chairman's introduction:  
  A.T. Turgut; Ankara/TR
- Ultrasound and intravenous urography: what is the new role?  
  S. Moussa; Edinburgh/UK
- CT urography  
  M.N. Özmen; Ankara/TR
- MR urography  
  T. El-Diasty; Mansoura/EG
- Panel discussion:  
  Which modality in which patient with haematuria?

Monday, March 5, 08:30–10:00  
SF 16c  Paediatric head and neck imaging

- Chairman's introduction:  
  B. De Foer; Wilrijk-Antwerp/BE
- Imaging of temporal bone pathology in children  
  B. De Foer; Wilrijk-Antwerp/BE
- Imaging approach for a child with a neck mass  
  N.J.M. Freling; Amsterdam/NL
- Imaging of maxillofacial and sinonasal pathology in children  
  S. Bisdas; Tübingen/DE
- Panel discussion:  
  How best to image the principal head and neck abnormalities in children

Monday, March 5, 16:00–17:30  
SF 19  Spinal intervention

- Chairman's introduction:  
  T. Sabharwal; London/UK
- Herniated disk?  
  X. Buy; Strasbourg/FR
- Vertebroplasty  
  A.D. Kelekis; Athens/GR
- Treatment of neoplasm  
  A. Gangi; Strasbourg/FR
- Facet pathology  
  N. Karunanithy; London/UK
- Panel discussion:  
  What are the new advances in the above fields that may change current practice?
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(Online from February 2012)
Professional Challenges
Sessions
ESR and EANM look to improve diagnostic cooperation

By Simon Lee

The advance of hybrid imaging may be slowly bringing radiology and nuclear medicine closer together, but despite these close allies sharing the same ultimate aims, there is still a significant knowledge gap between the two modalities. The expertise required to master either one may be very different, but the value of being familiar with the principles and the possibilities of the other is hard to over-estimate when patient outcomes are at stake.

Attendees of a new joint Professional Challenges session between the ESR and the European Association of Nuclear Medicine (EANM) at ECR 2012 will hopefully take away an improved appreciation of the complementary qualities of the two specialties – something that session co-Chairman and current ESR President Prof. András Palkó feels can sometimes be lacking from the diagnostic process.

"The purpose of our work is of course similar, to provide the most accurate diagnosis possible for our patients and clinical partners, but while each specialty has its own diagnostic algorithm, it’s not so typical that the algorithms take a look at the other specialties,” said Palkó. “The important thing is to find ways of co-operating and ways that the two distinct modalities can achieve these goals together, and for this we have to learn more about each other’s abilities. The vital thing for us to gain from a better mutual comprehension is diagnostic efficiency.”

The shared session represents a decisive step forward in the collaboration between the ESR and the EANM. Joint activity between the two societies has been gradually escalating at their respective annual meetings, but this session will see a departure from the more general approach of recent congresses to address a specific practical issue, as is clear from the session title, ‘Diagnosis of inflammatory conditions’. Attendees will hear from experts on both sides about the importance, pertinence and future roles of various imaging methods in inflammatory bowel diseases and vascular graft infections, and the proper diagnostic algorithms of nuclear medicine and radiological techniques.

“It is very important to honestly compare the techniques to obtain the optimum strategy for each patient, because the point of diagnosis is not to compete between the two disciplines but to complement each other to make the best of our combined resources,” noted Prof. Patrick Bourguet, EANM President and co-Chairman of the session.
Radiologists who are specialised in vascular radiology and abdominal radiologists should find much to take on board from the speaking nuclear physicians, but general radiologists can also expect to pick up some valuable insights. Understanding and diagnosing inflammatory bowel conditions and vascular graft infections can present challenging problems for the general radiologist and some of the solutions offered here should be very helpful, especially for those working in environments where these conditions are more frequently encountered. When a patient is admitted to the emergency department it is vital to have a clear idea of the optimum procedure where acute inflammation or infection is suspected, and enabling imaging professionals to determine strategies for such investigations is the most fundamental aim of sessions such as this.

“It is very important to know the strategy before we start. People who are involved in infectious and inflammatory diseases will be aware of the different techniques in these fields, but it is still not simple to make a very precise diagnosis of the location of infection. The radiological means are in many situations not sufficient and that’s why I think people who are working in departments or institutes where such diseases are a focus can benefit greatly from this session,” said Bourguet.

Both co-Chairmen are clear that increased cooperation between their societies should be on the horizon, with both looking to the future of integrated diagnosis. Hybrid methods that employ technologies from both sides are leading to more overlap, and both societies agree it is sensible to address the possibility of further convergence by discussing common education in the general world of imaging.

“There are lots of new hybrid modalities, like PET/CT, PET/MR, SPECT/CT, etc. and maybe there are others coming in the future. It seems inevitable that if there is not a re-integration between radiology and nuclear medicine then we will at least be working in much closer proximity,” noted Palkó. “These are the main reasons why we and the EANM feel it important to create joint sessions and work hard towards consolidating our combined knowledge now.”
### Thursday, March 1, 16:00–17:30

**Joint Session of ESR and EANM (European Association of Nuclear Medicine)**

#### PC 3  Diagnosis of inflammatory conditions

- **Chairmen’s introduction**
  - P. Bourguet; Rennes/FR
  - A. Palkó; Szeged/HU
- **Imaging inflammatory bowel disease:**
  - the nuclear medicine perspective
  - A. Signore; Rome/IT
- **Imaging inflammatory bowel disease:**
  - the radiology perspective
  - F. Maccioni; Rome/IT
- **Vascular graft infections and inflammation:**
  - the nuclear medicine perspective
  - O. Israel; Haifa/IL
- **Vascular graft infections and inflammation:**
  - the radiology perspective
  - A. Romero Jaramillo; Barcelona/ES
- **Panel discussion:**
  - What is seen in the crystal ball: the future role of nuclear medicine and radiology in the evaluation of inflammatory conditions

### Saturday, March 3, 16:00–17:30

**PC 11  An epidemic spreading from West to East: medico-legal challenges for radiologists**

- **Chairman’s introduction**
  - É. Breatnach; Dublin/IE
- **The correct conduct when you have just made a mistake**
  - L. Berlin; Skokie, IL/US
- **Medico-legal issues within paediatric practice: the history, the challenges, and the future**
  - C. Owens; London/UK
- **Case-based review of medico-legal aspects in emergency radiology**
  - A. Pinto; Naples/IT
- **Panel discussion:**
  - Specific case scenarios illustrating medico-legal pitfalls in communication skills, paediatric and emergency radiology

### Monday, March 5, 08:30–10:00

**Joint Session of ESR and ICRP (International Commission on Radiological Protection)**

#### PC 16  Upcoming challenges in radiation protection

- **Chairmen’s introduction**
  - E. Vaño; Madrid/ES
  - P. Vock; Berne/CH
- **Challenges in radiation protection for imaging: work in progress by ICRP**
  - E. Vaño; Madrid/ES
- **To understand new challenges, such as imaging in asymptomatic individuals**
  - K. Åhlström Riklund; Umea/SE
- **Hybrid systems and growing challenge posed by CT**
  - M.M. Rehani; Vienna/AT
- **Panel discussion:**
  - Optimisation vs justification: range of 1-10 mSv CT examination vs more strict selection of indications
Multidisciplinary Sessions
Managing Patients with Cancer

Thursday, March 1, 16:00–17:30
MS 3 Pancreatic tumours
• Chairman's introduction
  R. Manfredi; Verona/IT
• What the surgeon needs to know
  C. Bassi; Verona/IT
• Complete or incomplete resection:
  the added value of the pathologist
  G. Zamboni; Verona/IT
• Imaging of pancreatic tumours
  R. Manfredi; Verona/IT
• Case presentation and discussion
  R. Manfredi; Verona/IT

Friday, March 2, 08:30–10:00
MS 4 Lymphoma
• Chairman's introduction
  E. de Kerviler; Paris/FR
• The pathologist's viewpoint on lymphomas
  J. Brière; Paris/FR
• What the haematologist needs to know
  P. Brice; Paris/FR
• How modern imaging can influence
  therapy in lymphomas
  E. de Kerviler; Paris/FR
• Case presentation and discussion
  E. de Kerviler; Paris/FR

Saturday, March 3, 16:00–17:30
MS 11 Breast cancer
• Chairman's introduction
  T.H. Helbich; Vienna/AT
• From the radiologist's perspective
  T.H. Helbich; Vienna/AT
• From the surgeon's perspective
  M. Gnant; Vienna/AT
• From the oncologist's perspective
  G. Steger; Vienna/AT
• Case presentation and discussion
  T.H. Helbich; Vienna/AT
Categorical Courses
## Categorical Courses

**CLICK (Clinical Lessons for Imaging Core Knowledge): Common Clinical Cases**

### Saturday, March 3, 16:00–17:30
**CC 1118** Palpable abdominal mass

- **Moderator:** C. Matos; Brussels/BE
- **A. Clinical considerations**
  - D. Akata; Ankara/TR
- **B. Imaging techniques and typical findings**
  - M. Prokop; Nijmegen/NL
- **C. Interactive case discussion**
  - A.H. Freeman; Cambridge/UK

### Sunday, March 4, 08:30–10:00
**CC 1218** Focal neurological disorders

- **Moderator:** M. Golebiowski; Warsaw/PL
- **A. Clinical considerations**
  - D. Balériaux; Brussels/BE
- **B. Imaging techniques and typical findings**
  - G. Rudas; Budapest/HU
- **C. Interactive case discussion**
  - G. Krumina; Riga/LV

### Sunday, March 4, 10:30–12:00
**CC 1318** Female pelvic pain

- **Moderator:** V. Logager; Copenhagen/DK
- **A. Clinical considerations**
  - G. Restaino; Campobasso/IT
- **B. Imaging techniques and typical findings**
  - B. Brkljacic; Zagreb/HR
- **C. Interactive case discussion**
  - A.G. Rockall; London/UK

### Sunday, March 4, 14:00–15:30
**CC 1418** The vomiting infant and child

- **Moderator:** M. Riccabona; Graz/AT
- **A. Clinical considerations**
  - L.-S. Ording-Müller; Tromsø/NO
- **B. Imaging techniques and typical findings**
  - H.-J. Mentzel; Jena/DE
- **C. Interactive case discussion**
  - R.R. van Rijn; Amsterdam/NL

### Sunday, March 4, 16:00–17:30
**CC 1518** Fever of unknown origin

- **Moderator:** C.J. Herold; Vienna/AT
- **A. Clinical considerations**
  - C.P. Heussel; Heidelberg/DE
- **B. Imaging techniques and typical findings**
  - G.R. Ferretti; Grenoble/FR
- **C. Interactive case discussion**
  - G.H. Mostbeck; Vienna/AT

### Monday, March 5, 08:30–10:00
**CC 1618** Surprise in the liver

- **Moderator:** M. Lewin; Villejuif/FR
- **A. Clinical considerations**
  - A. Palkó; Szeged/HU
- **B. Imaging techniques and typical findings**
  - C.J. Zech; Munich/DE
- **C. Interactive case discussion**
  - G. Brancatelli; Palermo/IT

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= Interactive session with electronic voting/self assessment

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### Thursday, March 1, 16:00–17:30
#### CC 319
**Ischaemic stroke (‘acute neurologic deficit’)**

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<tr>
<td>R.D. Brüning</td>
<td>Hamburg/DE</td>
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A. Early diagnosis of ischaemic stroke: CT, MRI or other?
   - A. van der Lugt; Rotterdam/NL

B. Which patients are candidates for thrombolysis?
   - K.-O. Lovblad; Geneva/CH

C. Interventional neuroradiology for the treatment of ischaemic stroke
   - I. Szikora; Budapest/HU

### Saturday, March 3, 16:00–17:30
#### CC 1119
**Subarachnoid haemorrhage (‘the worst headache ever’)**

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<td>P.H. Nakstad</td>
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A. Diagnosis of subarachnoid haemorrhage (SAH)
   - M. Söderman; Stockholm/SE

B. Endovascular treatment of aneurysms
   - M.H.J. Voormolen; Edegem/BE

C. Imaging after aneurysm treatment
   - J.-P. Pruvo; Lille/FR

### Sunday, March 4, 14:00–15:30
#### CC 1419
**Oncologic emergencies in neuroradiology**

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<th>Moderator</th>
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<tr>
<td>J. Walecki</td>
<td>Warsaw/PL</td>
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A. Acute paraparesis
   - M. Essig; Erlangen/DE

B. Iatrogenic emergencies in oncology patients: PRES and radiation necrosis
   - P.C. Maly Sundgren; Lund/SE

C. Interventional techniques in oncologic patients
   - A. Gangi; Strasbourg/FR

### Sunday, March 4, 16:00–17:30
#### CC 1519
**Acute central nervous system infections**

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<td>V. Dousset</td>
<td>Bordeaux/FR</td>
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A. Acute infections of the brain
   - S. Karampekios; Iraklion/GR

B. Acute infections of the spine and spinal cord
   - M.M. Thurnher; Vienna/AT

C. Acute disseminating encephalomyelitis
   - F. Barkhof; Amsterdam/NL

### Monday, March 5, 08:30–10:00
#### CC 1619
**Radiological management of traumatic emergencies**

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<td>D. Goldsher</td>
<td>Haifa/IL</td>
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A. Maxillofacial trauma
   - B.F. Schuknecht; Zurich/CH

B. Cranioencephalic trauma
   - P.M. Parizel; Antwerp/BE

C. Spine trauma
   - A. Cianfoni; Charleston, SC/US

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<th>Moderator</th>
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<tr>
<td>M.A. Papathanasiou</td>
<td>Athens/GR</td>
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A. Acute loss of vision
   - S. Pedraza; Girona/ES

B. Hearing loss
   - C. Colosimo; Rome/IT

C. Facial nerve paralysis and trigeminal neuralgia
   - A. Borges; Lisbon/PT
Categorical Courses

Urogenital Imaging

Saturday, March 3, 08:30–10:00
CC 821 Renal and adrenal tumours
Moderator: G.M. Villeirs; Gent/BE
A. Imaging and staging of renal parenchymal tumours
U.G. Mueller-Lisse; Munich/DE
B. Tumours of the renal pelvis and ureter: the revolution of CT urography
N.C. Cowan; Oxford/UK
C. Adrenal tumours
F.M. Danza; Rome/IT

Saturday, March 3, 16:00–17:30
CC 1121 Paediatric genito-urinary imaging
Moderator: F. Papadopoulou; Ioannina/GR
A. Normal findings and diseases of the male and female developing genital systems
M.L. Lobo; Lisbon/PT
B. Imaging urogenital tumours in children: what is different from imaging in adults?
M.B. Damasio; Genoa/IT
C. Hydronephrosis and urinary tract obstruction in neonates and infants
M. Riccabona; Graz/AT

Sunday, March 4, 08:30–10:00
CC 1221 The female pelvis
Moderator: V. Gazhonova; Moscow/RU
A. Diagnosis of endometriosis with imaging
K. Kinkel; Chêne-Bougeries/CH
B. The acute female pelvis
E. Sala; Cambridge/UK
C. Imaging and image-guided therapy of uterine leiomyomas
T.J. Kroencke; Berlin/DE

Sunday, March 4, 14:00–15:30
CC 1421 Tumours of the female pelvis
Moderator: M.M. Otero-García; Vigo/ES
A. Imaging of the ovarian mass: is US enough?
J.A. Spencer; Leeds/UK
B. Imaging and staging of endometrial tumours: putting guidelines into clinical practice
H. Hricak; New York, NY/US
C. Imaging and staging of tumours of the uterine cervix: putting guidelines into clinical practice
B. Hamm; Berlin/DE

Sunday, March 4, 16:00–17:30
CC 1521 The patient with renal impairment
Moderator: P. Aspelin; Stockholm/SE
A. Iodine and Gd-based contrast media in patients with renal impairment: a tale of two evils
S.K. Morcos; Sheffield/UK
B. Imaging the impaired kidneys
M. Claudon; Vandoeuvre-les-Nancy/FR
C. The transplanted kidney
I. Sjekavica; Zagreb/HR
D. The AV shunts for haemodialysis: imaging and intervention
N. Grenier; Bordeaux/FR

Monday, March 5, 08:30–10:00
CC 1621 Prostate and urinary bladder
Moderator: N. Papanicolaou; Philadelphia, PA/US
A. State-of-the-art imaging of prostate cancer: which technique should I use?
A.R. Padhani; Northwood/UK
B. Prostate cancer: how to be successful for clinicians
J.O. Barentsz; Nijmegen/NL
C. Bladder cancer: state-of-the-art imaging and staging
G. Heinz-Peer; Vienna/AT
Mini Courses
Expert urges radiologists to take an interest in molecular imaging

By Mélisande Rouger

Hybrid imaging has paved the way for closer cooperation between radiologists and other disciplines. But if the alliance of PET with CT has become a reality in nuclear medicine, it is far from being the case in radiology. In fact, the absence of human applications means radiologists tend to keep their distance from this promising tool.

Experts will show radiologists what they are missing and how knowledge of molecular techniques is vital if things are to run smoothly with partner disciplines in the future, during a dedicated Mini Course at ECR.

Combining PET with CT has offered the possibility to acquire morphological, functional and molecular information within the same examination. Soon, the combination of PET with MR will allow the same and probably trigger more interest from radiologists, according to Prof. Nicolas Grenier, a professor of radiology at Bordeaux University Hospital, France. "So far radiologists have shown very little interest in molecular imaging because most applications haven’t made their way to clinical practice yet. We are going to present what can already be done with MR, since it is more commonly used than PET,” said Grenier, who will chair the Mini Course.

Imaging molecular phenomena occurring in cancer is one of the most widely researched applications nowadays. Once a tumour has been detected, one may collect information about its cellular type, activity, etc. By targeting proliferation or angiogenesis molecules, one may assess early tumour response to treatment and decide to change therapy if necessary.

Monitoring inflammation is another main application of molecular imaging. One can evaluate its intensity by targeting macrophage cells, membrane receptors and other cells in processes such as atherosclerosis, and organ fibrosis and failure. Many tests have been performed and clinical trials have been carried out for cell targeting, using iron oxide particles and MR imaging. Unfortunately, none of these particles are approved for patients yet.

“Targeted therapy is another field that is becoming very popular in oncology and inflammatory and brain diseases. Applications are booming, every lab is investing in it, and dedicated congresses and magazines are blossoming,” Grenier said.

Mini Course on Molecular Imaging
Thursday, March 1, 12:30–13:30
MC 23A Basics in molecular imaging (1)
Friday, March 2, 12:30–13:30
MC 23B Basics in molecular imaging (2)
Saturday, March 3, 12:30–13:30
MC 23C Imaging tumour biology and microenvironment
Sunday, March 4, 12:30–13:30
MC 23D From inflammatory to fibrotic processes
Monday, March 5, 12:30–13:30
MC 23E Theranostics: combining imaging and treatment

Many nano-sized carriers, which enable drugs or genes to be delivered locally, are being developed. These carriers have both targeting and therapeutic purposes. They contain drugs or genes that target a cell or molecule, which they will not release until they are rightly positioned. Once injected in the body, their evolution can be followed and their paths to their targets tracked thanks to contrast agents. The delivery of the therapeutic agent can also be monitored by imaging like MRI using heat or magnetic forces.

But imaging molecular targets with MR is quite difficult because contrast agents are not as sensitive as PET tracers, which provide very strong signals and can be used at low doses, allowing for fast application in human patients. On the contrary, MR contrast agents will be very limited because of toxicity issues. “That can be quite problematic and we need to find appropriate solutions. Actually, cell targeting works better than molecule targeting with MR,” noted Grenier.

The upcoming marriage of PET with MR seems inevitably set for use in imaging molecular phenomena, but other techniques that are currently being developed also show great potential.

Optical imaging is proving useful for depicting superficial tissues in the breast, prostate or thyroid. As with PET, one only needs to use very low doses of fluorescent contrast. Therefore, targeted optical agents could be approved for human use in the shorter term.

However, the optical signal soon loses intensity in deeper tissues. Photo acoustic, a new hybrid technique, might help overcome this limitation, by combining ultrasound with an optical signal, allowing detection of deeper optical targets. “This is a very interesting tool radiologists should know about,” added Grenier.

Combining imaging techniques to maximise their benefits is an ongoing trend and all kinds of future combinations are possible.

“It’s important to be aware that imaging is going to be increasingly multi-modal, to collect as much information as possible in one examination. With the combination of PET with MR, radiologists will become more and more involved and the cooperation that already started with nuclear medicine with the use of PET/CT will be strengthened.”
# Mini Courses

**Organs from A to Z: Lung**

**Thursday, March 1, 16:00–17:30**

**MC 322  Technical and anatomical fundamentals for imaging the lung**

**Moderator:** F. Molinari; Rome/IT

- A. Examination protocols for imaging the lung: CT and MRI  
  C. Schaefer-Prokop; Amersfoort/NL
- B. Radiation dose in lung imaging: issues and practical solutions  
  D. Tack; Baudour/BE
- C. Anatomy: the hinterland of normal on HRCT  
  S.J. Copley; London/UK

- **Discussion**

**Friday, March 2, 08:30–10:00**

**MC 422  Anatomy-based imaging review of lung disease**

**Moderator:** N. Sverzellati; Parma/IT

- A. Around and between the lungs: pleura, mediastinum, and hila  
  A. Oikonomou; Alexandroupolis/GR
- B. Large airways, small airways, and alveoli  
  M. Zompatori; Bologna/IT
- C. Pulmonary vessels  
  M. Rémy-Jardin; Lille/FR

- **Discussion**

**Sunday, March 4, 16:00–17:30**

**MC 1522  Causation-based imaging review of lung disease**

**Moderator:** C. Mueller-Mang; Vienna/AT

- A. Bacterial and viral pulmonary infections  
  T. Franquet; Barcelona/ES
- B. Non-infectious inflammatory lung disease  
  A.A. Bankier; Boston, MA/US
- C. Neoplastic lung disease  
  H.-U. Kauczor; Heidelberg/DE

- **Discussion**
### Thursday, March 1, 12:30–13:30
**MC 23A  Basics in molecular imaging (1)**

**Moderator:** S. Chatziioannou; Athens/GR  
A. Introduction to molecular imaging: a challenge for radiologists?  
P. Brader; Vienna/AT  
B. Multiscale imaging: from in vivo to in vitro and back  
B. Tavitian; Orsay/FR  
C. PET-CT-MRI and radiotracers for MI  
L. Martí-Bonmatí; Valencia/ES

### Friday, March 2, 12:30–13:30
**MC 23B  Basics in molecular imaging (2)**

**Moderator:** J. Dijkstra; Leiden/NL  
A. MR contrast agents for targeted MR imaging  
S. Aime; Turin/IT  
B. Sonographic and photo acoustic techniques for MI  
F.M.A. Kiessling; Aachen/DE  
C. Potential of optical imaging in vivo  
V. Ntziachristos; Munich/DE

### Saturday, March 3, 12:30–13:30
**MC 23C  Imaging tumour biology and microenvironment**

**Moderator:** A.E. Sundin; Stockholm/SE  
A. Modulation of the tumour microenvironment to optimise the response to therapies  
B. Gallez; Brussels/BE  
B. Molecular imaging of angiogenic characteristics of tumours  
A.R. Padhani; Northwood/UK  
C. Targets for tumour characterisation and treatment response  
F.A. Gallagher; Cambridge/UK

### Sunday, March 4, 12:30–13:30
**MC 23D  From inflammatory to fibrotic processes**

**Moderator:** T.F. Massoud; Cambridge/UK  
A. Imaging inflammation in organs and vessels  
X. Montet; Geneva/CH  
B. Molecular imaging of extracellular matrix changes  
M. Taupitz; Berlin/DE  
C. Structural and molecular imaging of fibrotic process  
B. Van Beers; Clichy/FR

### Monday, March 5, 12:30–13:30
**MC 23E  Theranostics: combining imaging and treatment**

**Moderator:** H.C. Steinert; Zurich/CH  
A. MR and US-guided drug delivery  
C. Moonen; Bordeaux/FR  
B. Imaging-guided cell-based therapy  
O. Clément; Paris/FR  
C. Imaging-guided gene-based therapy  
M. Neeman; Rehovot/IL
Mini Courses
Controversies in Abdominal Imaging

Friday, March 2, 08:30–10:00
MC 424  Small bowel examination: CT vs MRI

Moderator: B. Marincek; Cleveland, OH/US
Teaser: B. Gallix; Montpellier/FR
A. Why I prefer CT
   G.A. Rollandi; Genoa/IT
B. Why MRI is the best
   S. Gourtsoyianni; Athens/GR
• Discussion
   B. Marincek; Cleveland, OH/US
   B. Gallix; Montpellier/FR

Friday, March 2, 16:00–17:30
MC 724  Liver imaging: always MR, or still a role for CT?

Moderator: G. Brancatelli; Palermo/IT
Teaser: W. Schima; Vienna/AT
A. Why CT is the work horse
   P. Rogalla; Toronto, ON/CA
B. Why MR is the ultimate tool
   C. Ayuso; Barcelona/ES
• Discussion
   G. Brancatelli; Palermo/IT
   W. Schima; Vienna/AT

Saturday, March 3, 08:30–10:00
MC 824  Abdominal emergencies: US resists CT!

Moderator: M. Laniado; Dresden/DE
Teaser: P.R. Ros; Cleveland, OH/US
A. Why bother with CT when US answers so many questions?
   J.B.C.M. Puylaert; The Hague/NL
B. Why lose time with US when CT gives you all you need to know?
   D. Akata; Ankara/TR
• Discussion
   M. Laniado; Dresden/DE
   P.R. Ros; Cleveland, OH/US

= interactive session with electronic voting/self assessment
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<tr>
<th>Date</th>
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<th>Topic</th>
<th>Speaker</th>
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<tr>
<td>Thursday, March 1</td>
<td>14:30–15:30</td>
<td>MC 27A</td>
<td>The mediastinum</td>
<td>J. Cáceres; Barcelona/ES</td>
<td>MC 27A</td>
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<td>Friday, March 2</td>
<td>14:30–15:30</td>
<td>MC 27B</td>
<td>The heart</td>
<td>J. Cáceres; Barcelona/ES</td>
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<td>Saturday, March 3</td>
<td>09:00–10:00</td>
<td>MC 27C</td>
<td>Major vessels</td>
<td>J. Cáceres; Barcelona/ES</td>
<td>MC 27C</td>
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<td>Sunday, March 4</td>
<td>11:00–12:00</td>
<td>MC 27D</td>
<td>Pleura and chest wall</td>
<td>J. Cáceres; Barcelona/ES</td>
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<td>Monday, March 5</td>
<td>11:00–12:00</td>
<td>MC 27E</td>
<td>The diaphragm</td>
<td>J. Cáceres; Barcelona/ES</td>
<td>MC 27E</td>
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**Registration:**
These sessions are all fully booked. Places may become available at short notice onsite.
## Mini Courses

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

### Friday, March 2, 08:30–10:00  
**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  
  D.M. Panicek; New York, NY/US
- B. Lung cancers (primary, metastases)  
  C.J. Herold; Vienna/AT
- C. Colon cancer  
  R.M. Gore; Evanston, IL/US
- • Questions

### Friday, March 2, 10:30–12:00  
**MC 528** Essentials in oncologic imaging: what radiologists need to know  
(part 2)

- **Moderator:** D.M. Panicek; New York, NY/US
- A. Pancreatic cancer  
  F. Caseiro-Alves; Coimbra/PT
- B. Kidney cancer  
  E.K. Fishman; Baltimore, MD/US
- C. Ovarian cancer  
  H. Hricak; New York, NY/US
- • Questions

### Friday, March 2, 14:00–15:30  
**MC 628** Essentials in oncologic imaging: what radiologists need to know  
(part 3)

- **Moderator:** H.-U. Kauczor; Heidelberg/DE
- A. Oncologic imaging: terminology, definitions and buzzwords  
  Y. Menu; Paris/FR
- B. Liver cancers (primary, metastases)  
  R.L. Baron; Chicago, IL/US
- C. Prostate cancer  
  J.O. Barentsz; Nijmegen/NL
- • Questions

### Friday, March 2, 16:00–17:30  
**MC 728** Essentials in oncologic imaging: what radiologists need to know  
(part 4)

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

= Interactive session with electronic voting/self assessment
Thursday, March 1, 16:00–17:30
RC 301 Abdominal tumour evaluation: from morphology to biology

- Chairman’s introduction
  D.J. Lomas; Cambridge/UK
- A. Morphological assessment of tumour extension
  I. Bargellini; Pisa/IT
- B. Perfusion: a reliable tool for tumour activity assessment
  F. Berger; Munich/DE
- C. Beyond vascularisation: exploring tumour biology
  L. Martí-Bonmatí; Valencia/ES

- Panel discussion:
  How can you easily implement morphological and functional tools into your clinical practice?

Friday, March 2, 16:00–17:30
RC 701 How I report

Moderator: M.M. Maher; Cork/IE
- A. MRI in a patient with rectal cancer
  D.J.M. Tolan; Leeds/UK
- B. CT in a patient with bowel obstruction
  P. Taourel; Montpellier/FR
- C. CT in a patient with a solid mass of the pancreas
  C. Valls; Barcelona/ES

Saturday, March 3, 08:30–10:00
RC 801 Rectal cancer imaging: the next phase

- Chairman’s introduction
  L.C.O. Blomqvist; Stockholm/SE
- A. Local and distant staging
  S. Schmidt; Lausanne/CH
- B. Assessing tumour response
  S. Gourtsoyianni; Athens/GR
- C. Changes in clinical treatment paradigms: the role of radiology
  R.G.H. Beets-Tan; Maastricht/NL

- Panel discussion:
  What will clinicians really expect from us in 2012? How should we image our patients?

Sunday, March 4, 08:30–10:00
RC 1201 CT colonography: three steps to success

- Chairman’s introduction
  S.A. Taylor; London/UK
- A. Step 1: bowel prep and distension
  A. Laghi; Latina/IT
- B. Step 2: analysis and how to avoid pitfalls
  T. Mang; Vienna/AT
- C. Step 3: setting up your service
  A. Graser; Munich/DE

- Panel discussion:
  What exactly do I need to do?
Refresher Courses
Abdominal and Gastrointestinal

**Sunday, March 4, 16:00–17:30**
**RC 1501** Abdominal MRI: standard and advanced protocols in clinical settings

Moderator: I. Vivas; Pamplona/ES
A. Liver: how to study a cirrhotic patient
   A. Filippone; Chieti/IT
B. Small bowel and colon: how to study a patient with suspected inflammatory bowel disease
   N. Papanikolaou; Iraklion/GR
C. Pancreas and bile ducts: how to study a patient with suspected chronic pancreatitis
   M.A. Bali; Brussels/BE

**Monday, March 5, 08:30–10:00**
**RC 1601** The cystic lesions of the pancreas

Moderator: D.J. Breen; Southampton/UK
A. How can we differentiate cystic neoplasms from pseudocysts?
   H.-J. Brambs; Ulm/DE
B. IPMN: diagnostic and staging criteria
   R. Manfredi; Verona/IT
C. How to manage incidental findings
   C. Triantopoulou; Athens/GR

**Monday, March 5, 16:00–17:30**
**RC 1901** Crohn’s disease of the small bowel: which test when?

• Chairman’s introduction
  J. Rimola; Barcelona/ES
A. Detection and classification
   M.A. Patak; Zurich/CH
B. Disease activity assessment
   F. Maccioni; Rome/IT
C. Complications and follow-up
   L. Curvo-Semedo; Coimbra/PT

• Panel discussion: How can imaging change patient management in Crohn’s disease?
Refresher Courses

Breast

**Thursday, March 1, 16:00–17:30**
RC 302  Functional imaging of the breast

- Moderator: K. Pinker; Vienna/AT
- A. Contrast-enhanced mammography  
  C.S. Balleyguier; Villejuif/FR
- B. Ultrasound elastography  
  A. Athanasiou; Paris/FR
- C. MRI diffusion, perfusion and spectroscopy  
  P.A.T. Baltzer; Jena/DE

**Friday, March 2, 16:00–17:30**
RC 702  Breast MRI today

- Chairman's introduction  
  C.K. Kuhl; Aachen/DE
- A. How to set up a high quality breast MRI unit  
  M.L.A. Van Goethem; Edegem/BE
- B. Beyond differential diagnosis and local staging: prognosis and distant staging  
  J. Veltman; Almeio/NL
- C. Evidence-based controversies  
  F. Sardanelli; Milan/IT
- Panel discussion: Do we find too many cancers with MRI?

**Sunday, March 4, 08:30–10:00**
RC 1202  Breast interventions: from diagnosis to treatment

- Moderator: S.H. Heywang-Köbrunner; Munich/DE
- A. Practical tips for a successful needle biopsy procedure  
  L.J. Pina Insausti; Pamplona/ES
- B. Underestimation of disease in needle biopsies  
  M.A.A.J. van den Bosch; Utrecht/NL
- C. New developments: therapeutic interventional procedures  
  G. Manenti; Rome/IT

**Sunday, March 4, 14:00–15:30**
RC 1402  How I report

- Moderator: I. Leconte; Brussels/BE
- A. Mammography  
  E.J. Gilbert; Cambridge/UK
- B. Breast US  
  G. Rizzatto; Gorizia/IT
- C. Breast MRI  
  M.H. Fuchsjaeger; Vienna/AT

**Sunday, March 4, 16:00–17:30**
RC 1502  Evaluation of the treated breast and follow-up

- Chairman's introduction  
  M. Sentis; Sabadell/ES
- A. Evaluation of residual disease after excisional biopsy  
  K.A. Frei; Hinterkappelen/CH
- B. Evaluation of response to neoadjuvant chemotherapy  
  L. Martinicich; Candiolo/IT
- C. Surveillance for and detection of recurrent disease after therapy  
  I. Schreer; Kiel/DE
- Panel discussion: The new challenge in breast cancer: evaluation of response

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<th>Thursday, March 1, 16:00–17:30</th>
<th>RC 303 Cardiac imaging: the cutting edge</th>
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<td>Moderator: J. Vymazal; Prague/CZ</td>
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<td>A. Cardiac MRI: high fields vs 1.5T</td>
<td>B.J. Wintersperger; Toronto, ON/CA</td>
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<td>B. Cardiac CT: tubes, rows and what else?</td>
<td>K. Nikolaou; Munich/DE</td>
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<td>C. Cardiac hybrid imaging</td>
<td>P.A. Kaufmann; Zurich/CH</td>
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<td>A. Chest x-ray in cardiac disease</td>
<td>L. Natale; Sesto Fiorentino/IT</td>
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<td>B. Coronary CTA</td>
<td>H. Alkadhi; Zurich/CH</td>
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<td>C. Cardiac MRI in ischaemic heart disease</td>
<td>J. Bogaert; Leuven/BE</td>
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<td>Moderator: K. Gruszczynska; Katowice/PL</td>
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<tr>
<td>A. CT: angiography, function and perfusion</td>
<td>G. Feuchter; Innsbruck/AT</td>
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<td>B. MR perfusion imaging: how much quantification do we need?</td>
<td>A. de Roos; Leiden/NL</td>
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<td>C. Imaging patients after bypass surgery</td>
<td>K.-F. Kreitner; Mainz/DE</td>
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<th>Sunday, March 4, 16:00–17:30</th>
<th>RC 1503 MRI and CT before cardiac interventions or surgery</th>
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<td>Chairman's introduction</td>
<td>G.P. Krestin; Rotterdam/NL</td>
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<td>A. Can CT predict the outcome of percutaneous intervention?</td>
<td>C. Loewe; Vienna/AT</td>
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<tr>
<td>B. Can MRI predict the outcome of coronary revascularisation?</td>
<td>M. Francone; Rome/IT</td>
</tr>
<tr>
<td>C. The value of CT before percutaneous aortic valve replacement</td>
<td>R. Salgado; Antwerp/BE</td>
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- Panel discussion: Improve your interaction with your colleagues
Refresher Courses

Chest

Saturday, March 3, 08:30–10:00
RC 804 How I report
Moderator: M. Escobar; Barcelona/ES
A. Bedside chest radiography
E.E.J.G. Coche; Brussels/BE
B. CT angiography
J.E. Wildberger; Maastricht/NL
C. PET/CT
E.J.R. van Beek; Edinburgh/UK

Saturday, March 3, 16:00–17:30
RC 1104 Patterns in chest radiology: are there subtype patterns of ground glass opacity (GGO)?
• Chairman’s introduction
  A. Oikonomou; Alexandroupolis/GR
A. Ground glass opacification: why do we see it and what can it mean?
  S.R. Desai; London/UK
B. Inflammatory and infectious GGO
  K. Marten-Engelke; Göttingen/DE
C. GGO in dysplasia and neoplasia
  J.M. Goo; Seoul/KR
• Panel discussion:
  How do we report and manage ground glass opacity?

Sunday, March 4, 08:30–10:00
RC 1204 When CT sees both the heart and the lungs
• Chairman’s introduction
  M. Rémy-Jardin; Lille/FR
A. Anatomic cardiac details that every radiologist should know
  J. Bremerich; Basle/CH
B. Incidental findings and their clinical relevance
  J.D. Dodd; Dublin/IE
C. Pulmonary hypertension and right ventricle function
  K.-F. Kreitner; Mainz/DE
• Panel discussion:
  Ready for routine reporting of cardiovascular findings on CT scans of the chest?

Monday, March 5, 08:30–10:00
RC 1604 Patterns in chest radiology: diffuse lung diseases – what the radiologist should know
• Chairman’s introduction
  D.M. Hansell; London/UK
A. The glossary of terms for thoracic imaging: old and new definitions
  J.A. Verschakelen; Leuven/BE
B. From pattern recognition to disease diagnosis: a practical approach (part 1)
  A. Devaraj; London/UK
C. From pattern recognition to disease diagnosis: a practical approach (part 2)
  N. Howarth; Chêne-Bougeries/CH
• Panel discussion:
  How do we report CT of diffuse lung disease?

Monday, March 5, 16:00–17:30
RC 1904 Phenotypes in obstructive airway disease: how do I image, analyse and report?
Moderator: P.A. Grenier; Paris/FR
A. Asthma and associated conditions
  P.-Y. Brillet; Bobigny/FR
B. Chronic obstructive pulmonary disease (COPD)
  N. Sverzellati; Parma/IT
C. Cystic fibrosis and other bronchiectatic diseases
  M.U. Puderbach; Heidelberg/DE
Thursday, March 1, 16:00–17:30
RC 305  Image processing and computer-aided diagnosis (CAD)

- Chairman’s introduction
  O. Ratib; Geneva/CH
- A. The link between image reconstruction and image analysis
  A. Todd-Pokropek; London/UK
- B. Semantic web technologies for sharing and reuse of imaging-related information
  B. Gibaud; Rennes/FR
- C. Image processing and CAD: workflow in clinical practice
  E. Neri; Pisa/IT
- Panel discussion:
  How do image processing and CAD impact radiological daily practice?

Monday, March 5, 08:30–10:00
RC 1605  New PACS architecture: decoupling image management from image navigation

- Chairman’s introduction
  H.U. Lemke; Berlin/DE
- A. Image navigation and new PACS architecture
  J. Reponen; Raahe/FI
- B. Intraoperative imaging for surgeons
  A. Pietrabissa; Pisa/IT
- C. Dismantling PACS: separating the image viewing from the data storage and sharing
  L.N. Sutton; Halifax/UK
- Panel discussion:
  How should we manage our images today?
Refresher Courses
Molecular Imaging and Contrast Media

Friday, March 2, 08:30–10:00
RC 406  Contrast media and tracers: always as safe as we wish?

• Chairman’s introduction
  S.K. Morcos; Sheffield/UK
A. Iodinated CM: whether CIN is a SIN, and how to avoid it
  R.W.F. Geenen; Alkmaar/NL
B. MR contrast agents: rumble in the jungle
  G. Heinz-Peer; Vienna/AT
C. PET tracers: established tracers and those on the horizon
  B. Tavitian; Orsay/FR

• Panel discussion:
  What specific precautions are mandatory in order to guarantee contrast media safety to patients and healthcare professionals?

Monday, March 5, 16:00–17:30
RC 1906  How I optimise contrast media administration

Moderator: A.J. van der Molen; Leiden/NL
A. CT
  P. Leander; Malmö/SE
B. MRI
  G.M. Bongartz; Basle/CH
C. PET/CT
  X. Montet; Geneva/CH
**Thursday, March 1, 16:00–17:30**

**RC 307 Imaging the female pelvis**

**Moderator:** M. Secil; Izmir/TR

A. Imaging for pelvic pain in pregnancy  
G. Masselli; Rome/IT

B. Imaging gynaecological emergencies  
A.G. Rockall; London/UK

C. Imaging for non-gynaecological emergencies  
R.F. El Sayed; Cairo/EG

**Friday, March 2, 16:00–17:30**

**RC 707 Diagnosis and management of GU tract trauma**

**Moderator:** A. Magnusson; Uppsala/SE

A. Imaging the kidney and ureter  
M.-F. Bellin; Le Kremlin-Bicêtre/FR

B. Imaging the bladder and urethra  
U.G. Mueller-Lisse; Munich/DE

C. Interventional radiology for GU trauma  
B. Peynircioglu; Ankara/TR

**Sunday, March 4, 08:30–10:00**

**RC 1207 How I report**

**Moderator:** D. Negru; Iasi/RO

A. Female pelvis MRI  
C. Del Frate; San Daniele del Friuli/IT

B. Prostate MRI  
J.J. Fütterer; Nijmegen/NL

C. CT urography  
N.C. Cowan; Oxford/UK

**Sunday, March 4, 14:00–15:30**

**RC 1407 MRI in prostate cancer**

- Chairman’s introduction  
  J. Venancio; Lisbon/PT

A. MRI in detection of prostate cancer  
F. Cornud; Paris/FR

B. MRI in post-treatment follow-up  
A.T. Turgut; Ankara/TR

C. New frontiers in imaging of the prostate  
J.O. Barentsz; Nijmegen/NL

- Panel discussion:  
  What is the most appropriate radiological approach in patients with rising PSA levels and when should it be taken?
### Refresher Courses

**Head and Neck**

**Thursday, March 1, 16:00–17:30**

**RC 308 Temporal bone imaging**

- **Moderator:** C. Czerny; Vienna/AT
  - **A. Normal anatomy and congenital malformations of the ear**
    - S. Kösling; Halle a.d. Saale/DE
  - **B. Cholesteatoma and chronic infection**
    - F. Veillon; Strasbourg/FR
  - **C. Enhancing inner ear structures**
    - J.W. Casselman; Bruges/BE

**Friday, March 2, 16:00–17:30**

**RC 708 Paranasal sinus imaging**

- Chairman's introduction
  - M.G. Mack; Frankfurt a. Main/DE
- **A. Anatomy and anatomic variants**
  - T. Beale; London/UK
- **B. Sinusitis: imaging findings before and after treatment**
  - D. Farina; Brescia/IT
- **C. Sinonasal tumours**
  - B. Verbist; Leiden/NL

- Panel discussion:
  - How do we recognize important findings?

**Sunday, March 4, 16:00–17:30**

**RC 1408 Performing and reporting head and neck examinations: how do I do it?**

- **Moderator:** P.-Y. Marcy; Nice/FR
  - **A. Sinonasal CT scans**
    - M. Becker; Geneva/CH
  - **B. Temporal bone CT and MRI scans**
    - M.M. Lemmerling; Gent/BE
  - **C. CT scans of the head and neck**
    - A. Trojanowska; Lublin/PL

**Sunday, March 4, 14:00–15:30**

**RC 1508 Post-treatment head and neck management: the diagnostic dilemma**

- **Chairman’s introduction**
  - R. Maroldi; Brescia/IT
- **A. Expected changes after treatment**
  - A.S. McQueen; Newcastle upon Tyne/UK
- **B. Surveillance imaging, tumour recurrence and treatment complications**
  - F.A. Pameijer; Utrecht/NL
- **C. Predicting outcome of radiation therapy in head and neck cancer: clinical reality?**
  - V. Vandecaveye; Leuven/BE

- Panel discussion:
  - Recurrence, inflammation, necrosis or scar: is imaging useful?

**Monday, March 5, 16:00–17:30**

**RC 1908 Differentiating skull base lesions**

- **Moderator:** C.R. Habermann; Hamburg/DE
- **A. Olfactory apparatus lesions**
  - T.P.J. Duprez; Brussels/BE
- **B. Cavernous sinus and pterygopalatine fossa lesions**
  - A. Borges; Lisbon/PT
- **C. Jugular fossa lesions: how to differentiate?**
  - H. Tanghe; Rotterdam/NL
**Thursday, March 1, 16:00–17:30**  
**RC 309** The trauma patient  
- Chairman's introduction  
  A. Waterston; Exeter/UK  
- A. Imaging modalities and logistics  
  D.O. Kessel; Leeds/UK  
- B. Management of arterial trauma  
  J. Urbano; Madrid/ES  
- C. Solid organ trauma  
  L. Lonn; Copenhagen/DK  
- Panel discussion:  
  Do we need IR in the ER?  

**Friday, March 2, 16:00–17:30**  
**RC 709** Evaluation and treatment of common venous disorders  
- Chairman: D. Ettles; Hull/UK  
- A. Pelvic congestion  
  A. Basile; Catania/IT  
- B. Varicose veins in the extremities  
  C. Binkert; Winterthur/CH  
- C. Varicocele  
  M. Mansour; Wuppertal/DE  

**Saturday, March 3, 08:30–10:00**  
**RC 809** Percutaneous drainage for general radiologists  
- Moderator: J.L. del Cura; Bilbao/ES  
- A. Pleural drainage  
  A. Keeling; Dublin/IE  
- B. Abdominal abscess  
  T.G. Vrachliotis; Athens/GR  
- C. Nephrostomy  
  R.H. Portugaller; Graz/AT  

**Saturday, March 3, 16:00–17:30**  
**RC 1109** Biliary interventions  
- Chairman: A.A. Hatzidakis; Iraklion/GR  
- A. Fistula and benign stenosis  
  M. Krokidis; London/UK  
- B. Interventions after liver transplantation  
  P. Goffette; Brussels/BE  
- C. In tandem with endoscopy  
  D.F. Martin; Manchester/UK  
- Panel discussion:  
  What are the new possibilities in this classic topic?  

**Sunday, March 4, 08:30–10:00**  
**RC 1209** Expanding the role of interventional radiology in hepatocellular carcinoma  
- Chairman: G. Maleux; Leuven/BE  
- A. RF ablation  
  V. Válek; Brno/CZ  
- B. Intra-arterial procedures  
  F. Orsi; Milan/IT  
- C. Portal vein embolisation before surgery  
  T.J. Cleveland; Sheffield/UK  
- Panel discussion:  
  How to select the ideal treatment in a patient with HCC
**Refresher Courses**

**Musculoskeletal**

**Friday, March 2, 16:00–17:30**
**RC 710  How I report**

Moderator: C. Glaser; Munich/DE
A. Soft tissue mass: US/MR
  C. van Rijswijk; Leiden/NL
B. MR of vertebral body collapse
  R. Lalam; Oswestry/UK
C. MR of the unstable shoulder
  M. Zanetti; Zurich/CH

**Saturday, March 3, 08:30–10:00**
**RC 810  Bone marrow oedema and bone marrow oedema-like lesions**

- Chairman's introduction
- B. Vande Berg; Brussels/BE
A. BME and osteoarthritis
  F.W. Roemer; Augsburg/DE
B. BME and early inflammatory disease
  A.J. Grainger; Leeds/UK
C. BME and trauma
  S. Dzelzite; Riga/LV

- Panel discussion:
  Can we still use the term BME or should we be more specific?

**Saturday, March 3, 16:00–17:30**
**RC 1110  Intra-articular imaging**

- Chairman’s introduction
  A.H. Karantanas; Iraklion/GR
A. Standard MR techniques
  C. Faletti; Turin/IT
B. CT arthrography
  C.W.A. Pfirrmann; Zurich/CH
C. MR arthrography
  J. Kramer; Linz/AT

- Panel discussion:
  Which imaging technique in which clinical scenario?

**Sunday, March 4, 08:30–10:00**
**RC 1210  Sports injuries: US or MRI?**

- Chairman’s introduction
  G.M. Allen; Oxford/UK
A. Muscle and US
  C. Martinoli; Genoa/IT
B. Tendon and US
  A. Klauser; Innsbruck/AT
C. Muscle and tendon by MRI
  U. Aydingoz; Ankara/TR

- Panel discussion:
  What is the best imaging modality for diagnosing sports injuries?

**Sunday, March 4, 14:00–15:30**
**RC 1410  Postoperative joint imaging**

Moderator: G. Mantzikopoulos; Athens/GR
A. Shoulder
  K. Wörtler; Munich/DE
B. Knee
  K. Verstraete; Gent/BE
C. Ankle
  C. Masciocchi; L’Aquila/IT

**Monday, March 5, 16:00–17:30**
**RC 1910  The knee**

- Chairman’s introduction
  F.M.H.M. Vanhoenacker; Antwerp/BE
A. Patterns of injury
  P. Van Dyck; Antwerp/BE
B. Inflammatory disease
  A. Cotten; Lille/FR
C. Soft tissue tumours/tumour-like lesions
  J.C. Vilanova; Girona/ES

- Panel discussion:
  What are the remaining clinical questions that imaging currently cannot answer and how will we answer them in the future?
### Friday, March 2, 08:30–10:00
**RC 411 General neuroradiology: introduction to the brain**

**Moderator:** E.-M.B. Larsson; Uppsala/SE

A. Brain anatomy made easy: the language system  
   T.A. Yousry; London/UK

B. Brain haemorrhage: from microbleeds to lobar haematomas  
   M.A. van Buchem; Leiden/NL

C. Differential diagnosis of multiple brain lesions: tumour and tumour-like lesions  
   A. Rovira-Canellas; Barcelona/ES

### Saturday, March 3, 16:00–17:30
**RC 1111 Neuro paediatrics: imaging of the paediatric brain**

**Moderator:** N. Girard; Marseille/FR

A. Systemised approach to inherited white matter disease in children  
   A. Rossi; Genoa/IT

B. Malformation of the posterior fossa  
   C. Hoffmann; Tel Hashomer/IL

C. Phakomatosis  
   P.D. Griffiths; Sheffield/UK

### Sunday, March 4, 14:00–15:30
**RC 1411 Angioplasty and stenting of extra and intracranial arteries**

- Chairman’s introduction  
  P. Vilela; Almada/PT

A. Critical appraisal of the literature  
   J. Fiehler; Hamburg/DE

B. PTA and stenting of extracranial arteries  
   T. Andersson; Stockholm/SE

C. PTA and stenting of intracranial arteries  
   V. Pereira; Geneva/CH

### Sunday, March 4, 16:00–17:30
**RC 1511 Advanced techniques: diffusion tensor imaging (DTI) in clinical practice**

**Moderator:** P.C. Maly Sundgren; Lund/SE

A. DTI technique, sequences, software and post processing  
   W. Van Hecke; Antwerp/BE

B. DTI in brain tumours  
   M. Essig; Erlangen/DE

C. DTI in paediatric diseases  
   P.E. Grant; Boston, MA/US

### Monday, March 5, 08:30–10:00
**RC 1611 Spine: update on spinal disorders**

**Moderator:** M. Sasiadek; Wroclaw/PL

A. Imaging algorithm for degenerative spinal disease and spondyloarthropathies in 2012  
   J. Van Goethem; Antwerp/BE

B. Myelitis, myelopathy and spinal cord tumours  
   M.M. Thurnher; Vienna/AT

C. Percutaneous treatment of spinal diseases  
   M. Muto; Naples/IT

### Monday, March 5, 16:00–17:30
**RC 1911 How I report**

**Moderator:** M. Mechl; Brno/CZ

A. MRI in microvascular and inflammatory diseases  
   P. Vilela; Almada/PT

B. MRI in common neurodegenerative diseases  
   F. Barkhof; Amsterdam/NL

C. Neuroimaging in the acutely ill/ICU patient  
   M. Gallucci; L’Aquila/IT
Refresher Courses
Paediatric

Saturday, March 3, 08:30–10:00
RC 812  Imaging the paediatric spine

Moderator: E. Vázquez; Barcelona/ES
A.  Congenital malformations and neonatal spinal imaging
   I. Gassner; Innsbruck/AT
B.  Inflammation, infection and tumours: the role of imaging
   M.I. Argyropoulou; Ioannina/GR
C.  Imaging spinal trauma in childhood
   M. Maas; Amsterdam/NL

Sunday, March 4, 08:30–10:00
RC 1212  Oncologic imaging: how to image, follow up and report

•  Chairman's introduction
   R.R. van Rijn; Amsterdam/NL
A.  Renal and adrenal tumours in children
   A.M.J.B. Smets; Amsterdam/NL
B.  Paediatric liver malignancies
   D. Roebuck; London/UK
C.  Oncologic imaging in the paediatric brain
   G. Hahn; Dresden/DE
•  Panel discussion:
   How far the radiologist can go in suggesting tumour recurrence or post-treatment complications

Sunday, March 4, 14:00–15:30
RC 1412  Children’s bones and joints

Moderator: O.E. Olsen; London/UK
A.  Imaging of sports injuries
   M. Alison; Paris/FR
B.  Hip dysplasia:
   US techniques and recommendations
   K. Rosendahl; Bergen/NO
C.  Imaging of juvenile idiopathic arthritis
   M. Valle; Genoa/IT

Sunday, March 4, 16:00–17:30
RC 1512  Abdominal emergencies in children

Moderator: F.E. Avni; Brussels/BE
A.  Non-traumatic abdominal emergencies in childhood
   F. Tomà; Rome/IT
B.  GU emergencies in children: kidney, ovary, testis
   M. Riccabona; Graz/AT
C.  Abdominal trauma in children
   M.P. Garcia-Peña; Barcelona/ES

Monday, March 5, 16:00–17:30
RC 1912  Chest imaging: what to use and when to use it

Moderator: W. Hirsch; Leipzig/DE
A.  Thoracic trauma and foreign body inhalation
   M.L. Lobo; Lisbon/PT
B.  Infiltrative diseases of the chest
   G. Staatz; Mainz/DE
C.  Imaging of neonatal chest emergencies
   A. Paterson; Belfast/UK
**Saturday, March 3, 16:00–17:30**
**RC 1113 High field MRI: beyond 3T**

Moderators: F. Schick; Tübingen/DE  
S. Trattnig; Vienna/AT

A. Challenges of high field MR  
M. Bock; Heidelberg/DE

B. A complicated solution to a complicated problem: transmit array  
M.E. Ladd; Essen/DE

C. Is 7T ready for clinical use?  
S. Francis; Nottingham/UK

**Sunday, March 4, 08:30–10:00**
**RC 1213 Diagnostic radiology and pregnancy**

Moderators: H. Ringertz; Linköping/SE  
W.J.M. van der Putten; Galway/IE

A. Conceptus doses and risks from maternal diagnostic x-ray examinations  
J. Damilakis; Iraklion/GR

B. X-ray imaging and pregnancy: justification and optimisation of exposure  
P. Vock; Berne/CH

C. Pregnancy and MRI: risks to the unborn child  
J. De Wilde; Edinburgh/UK

**Sunday, March 4, 14:00–15:30**
**RC 1413 Hybrid imaging systems**

Moderators: A.A. Lammertsma; Amsterdam/NL  
J. Votrubová; Prague/CZ

A. Clinical SPECT/CT and PET/CT  
T. Beyer; Zurich/CH

B. Clinical PET/MRI  
G. Antoch; Düsseldorf/DE

C. Pre-clinical hybrid imaging  
N. Belcari; Pisa/IT

**Sunday, March 4, 16:00–17:30**
**RC 1513 Novel developments in CT and impact on dose**

Moderators: M. Kachelrieß; Heidelberg/DE  
J. Vlahos; London/UK

A. Patient dose assessment in CT  
P.C. Shrimpton; Didcot/UK

B. New frontiers in CT: functional and spectral imaging  
N. Pelc; Stanford, CA/US

C. New image reconstruction techniques  
J. Nuyts; Leuven/BE

**Monday, March 5, 08:30–10:00**
**RC 1613 Simulations help us understand x-ray imaging**

Moderators: H. Bosmans; Leuven/BE  
A. Persson; Linköping/SE

A. Monte Carlo simulations of x-ray tubes and x-ray spectra  
M. Koultalovis; London/UK

B. Monte Carlo simulations of virtual patients (anthropomorphic phantoms)  
M. Zankl; Neuherberg/DE

C. Monte Carlo simulations of x-ray detectors and x-ray images  
N. Marshall; Leuven/BE
Refresher Courses
Radiographers

Saturday, March 3, 08:30–10:00
RC 814 Challenges and solutions for radiographers in MRI: high field and imaging under patient motion

Moderators: L. Abernethy; Liverpool/UK
C. Malamateniou; London/UK
A. Advantages of high field MRI: a radiographer's perspective
E. Lavdas; Athens/GR
B. Artefacts at high field MRI: clinical applications and technical solutions
S. Brandao; Porto/PT
C. Reducing motion artefacts in foetal MRI: the contribution of the radiographer
C. Malamateniou; London/UK

Saturday, March 3, 16:00–17:30
RC 1114 Radiographers’ impact on dose optimisation and radiation protection: the essential link in the chain

Moderators: A.B. Aslaksen; Bergen/NO
A. Henner; Oulu/FI
A. Dose optimisation – what more is there to be done? The role of the radiographer
S. Mc Fadden; Newtownabbey/UK
B. From screen-film to digital systems: how to implement an optimisation process
J. Santos; Coimbra/PT
C. The importance of education and training in the development of the role of the radiographer in quality assurance and radiation protection
M.-L. Butler; Dublin/IE

Sunday, March 4, 08:30–10:00
RC 1214 Changing era of radiography education in Europe: new perspectives for students and staff

Moderators: G. Paulo; Coimbra/PT
H.M. Zonderland; Amsterdam/NL
A. The change from diploma to bachelor’s degree: new perspectives for students and staff
M. Rosenblattl; Wiener Neustadt/AT
B. Strengthening radiography education through European networks
V. Challen; Lancaster/UK
C. Exploring the benefits of European radiography networks: a personal and professional perspective of the Erasmus radiography group
J. Portelli; Msida/MT

Sunday, March 4, 14:00–15:30
RC 1414 Promoting best practice in forensic imaging

Moderators: C. Vandulek; Kaposvár/HU
P. Vock; Berne/CH
A. Forensic imaging: another important growing field
P. Vock; Berne/CH
B. The role of radiographers in forensic imaging
J. McNulty; Dublin/IE
C. The importance of standards in education and training in forensic imaging
E. Faircloth; Devon/UK

Sunday, March 4, 16:00–17:30
RC 1514 Breast screening programmes: roles and issues for radiographers

Moderators: G. Forrai; Budapest/HU
K. Haller; Wiener Neustadt/AT
A. Establishing competencies of radiographers in national screening programmes
J. Hammond; Dublin/IE
B. Quality control and quality assurance of breast screening programmes from the radiographers viewpoint
A. Kostiov; Ljubljana/SI
C. The radiographer’s role in optimisation of dose and image quality in mammography
D. O’Leary; Dublin/IE
**Thursday, March 1, 16:00–17:30**  
**RC 315  How I report**

Moderator: C. Loewe; Vienna/AT  
A. CTA and MRA of supra-aortic arteries  
J.H. Gillard; Cambridge/UK  
B. CTA and MRA of thoracic and abdominal aorta  
H.J. Michaela; Mannheim/DE  
C. CTA and MRA of peripheral arteries  
T. Leiner; Utrecht/NL

**Friday, March 2, 16:00–17:30**  
**RC 715  Vascular imaging: diabetes and vascular occlusive disease**

Moderator: M.W. de Haan; Maastricht/NL  
A. Metabolic syndrome, diabetes and vascular disease: what do we need to know?  
E. Minar; Vienna/AT  
B. Imaging strategies in diabetic foot syndrome  
R. Iezzi; Rome/IT  
C. Imaging prior to revascularisation: US, CTA, MRA or DSA?  
S.O. Schönberg; Mannheim/DE

**Saturday, March 3, 08:30–10:00**  
**RC 815  Vascular imaging in ischaemic stroke**

Moderator: J. Barkhausen; Lübeck/DE  
A. Extracranial and intracranial atherosclerotic disease of carotid arteries  
C. Catalano; Rome/IT  
B. Vertebrobasilar atherosclerotic arterial disease  
L. Valvassori; Milan/IT  
C. Dissection and vasculitis of intracranial and extracranial arteries  
H.R. Jäger; London/UK

**Monday, March 5, 16:00–17:30**  
**RC 1915  Non-traumatic acute aortic dissection**

- Chairman’s introduction  
A.-M. Belli; London/UK  
A. Etiology, clinical signs and prognosis of acute non-traumatic aortic dissection  
V. Bérczi; Budapest/HU  
B. Acute aortic dissections: imaging and image-based classification  
J. Lammer; Vienna/AT  
C. Acute aortic dissections: imaging of complications  
M.H.K. Hoffmann; Ulm/DE  
- Panel discussion:  
Which imaging modality is best for planning of endovascular management?
Refresher Courses
Oncologic Imaging

**Sunday, March 4, 08:30–10:00**
**RC 1216  Lymph node imaging: where are we now?**

- Chairman’s introduction
  R.G.H. Beets-Tan; Maastricht/NL
- A. The current criteria for nodal involvement on CT/MRI
  W. Schima; Vienna/AT
- B. MRI techniques: what do they contribute?
  H.C. Thoeny; Berne/CH
- C. Nuclear medicine:
  PET and other techniques
  W. Weber; Freiburg/DE
- Panel discussion:
  When and how will imaging make diagnostic biopsy unnecessary?

**Sunday, March 4, 14:00–15:30**
**RC 1416  Monitoring response: the essential guide for all radiologists**

- Chairman’s introduction
  H.-P. Schlemmer; Heidelberg/DE
- A. RECIST made easy
  A.G. Rockall; London/UK
- B. Response measurement in ‘difficult’ tumours
  L. Ollivier; Paris/FR
- C. Assessment of response using functional imaging: the essentials
  A.E. Sundin; Stockholm/SE
- Panel discussion:
  When and how will functional imaging overcome morphological assessment?

**Monday, March 5, 08:30–10:00**
**RC 1616  Imaging the complications of cancer treatment**

- Chairman’s introduction
  P. Brader; Vienna/AT
- A. Pulmonary complications of the treatment of malignancy
  S. Diederich; Düsseldorf/DE
- B. Imaging the effects of cancer treatment in the abdomen and pelvis
  J.A. Spencer; Leeds/UK
- C. Complications of treatment in the CNS
  P. Demaerel; Leuven/BE
- Panel discussion:
  How can the radiologist make sure not to miss complications of cancer treatment?
Refresher Courses
Emergency Radiology

Friday, March 2, 08:30–10:00
RC 417 ER: basic principles
Moderator: O. Chan; London/UK
A. Logistics, ergonomics and organisation of an emergency radiology department
I. Arkhipova; Moscow/RU
B. Advanced trauma life support: ABCDE from a radiological point of view
D.R. Kool; Nijmegen/NL
C. Mechanism of injury and MDCT protocols: choosing the right protocol for the patient
M. Stajgis; Poznan/PL

Sunday, March 4, 16:00–17:30
RC 1517 Polytrauma: redefining imaging issues for management priorities
Moderator: P.-A. Poletti; Geneva/CH
A. Vascular trauma
G. Schueller; Vienna/AT
B. Chest and abdomen
M. Scaglione; Castel Volturno/IT
C. Extremities
U. Linsenmaier; Munich/DE
Organising Committee:
Chairman: P. Sharp; Aberdeen/UK
Members: C. Leidecker; Forchheim/DE
A. Torresin; Milan/IT
W.J.M. van der Putten; Galway/IE

Saturday, March 3, 08:30–10:00
EF 1 Advances in technology for interventional radiology: general overview

Moderators: R. Padovani; Udine/IT
P. Sharp; Aberdeen/UK

- Welcome address
  L. Bonomo; Rome/IT
  P. Sharp; Aberdeen/UK

- Radiologist's point of view: physician required for the new technology
  J.A. Reekers; Amsterdam/NL

- Rotational angiography and cone beam CT
  M. Kachelrieß; Heidelberg/DE

- MR interventional techniques
  J. De Wilde; Edinburgh/UK

- US interventional techniques
  L. Solbiati; Busto Arsizio/IT

Saturday, March 3, 10:30–12:00
EF 2 Advances in technology for interventional radiology: technology assessment

- Moderators: A. Torresin; Milan/IT
  W.J.M. van der Putten; Galway/IE

- Angiographic equipment performance assessment
  A. Trianni; Udine/IT
  P.E. Colombo; Milan/IT

- Patient and staff radiation issues in angiography
  E. Vaño; Madrid/ES

- Panel discussion with angiographic equipment manufacturers
  L. Desponds; Buc/FR
  B. Hoornaert; Eindhoven/NL
  M. Lendl; Ottensoos/DE

- Final discussion
Satellite Symposium  ECR 2012

Vessel and Muscle in Coronary Heart Disease

March 3rd 2012, 12.30 - 1.30 pm - Austria Center Vienna

12:30 – 12:35  Introduction by the chairman
Prof. Sven Plein (Leeds, UK)

12:35 – 12:50  Updated developments in coronary MSCT in patients with atrial fibrillation
Dr. Marc Dewey (Berlin, Germany)

12:50 – 01:05  Detection of occult myocardial infarcts and coronary stenosis in asymptomatic diabetic patients
Prof. Tae-Hwan Lim (Seoul, South Korea)

01:05 – 01:20  Why not having both with cardiac hybrid imaging?
Dr. Oliver Gaemperli (Zürich, Switzerland)

01:20 – 01:30  Questions/Answers moderated by the chairman

Invitations available at Guerbet’s Booth in Expo C
E³ – European Excellence in Education
E³ – European Excellence in Education
Foundation Course: More About Ultrasound

**Friday, March 2, 08:30–10:00**
E³ 420b  Understand recent issues in US technology

- Moderator: M. Bachmann Nielsen; Copenhagen/DK
- A. Recent advances in US technology  
  M. Claudon; Vandoeuvre-les-Nancy/FR
- B. Portable machines: the future of US?  
  G.H. Mostbeck; Vienna/AT
- C. How to choose your equipment  
  J.-M. Correas; Paris/FR

**Friday, March 2, 10:30–12:00**
E³ 520b  Vascular imaging: Doppler and contrast-enhanced US

- Moderator: L. Steyaert; Bruges/BE
- A. Imaging superficial vessels  
  P. Landwehr; Hannover/DE
- B. Imaging deep vessels  
  D.K. Tsetis; Iraklion/GR
- C. The role of contrast US  
  D.-A. Clevert; Munich/DE

**Friday, March 2, 14:00–15:30**
E³ 620  US and contrast-enhanced US for focal lesions

- Moderator: D.O. Cosgrove; London/UK
- A. Evaluation of focal liver lesions  
  T. Albrecht; Berlin/DE
- B. Evaluation of kidney lesions  
  C. Nicolaou; Barcelona/ES
- C. Intraoperative and therapeutic applications  
  L. Solbiati; Busto Arsizio/IT

**Friday, March 2, 16:00–17:30**
E³ 720b  Emergency radiology: where does US fit in?

- Moderator: Y. Menu; Paris/FR
- A. Acute abdomen in adults: US vs CT  
  L.E. Derchi; Genoa/IT
- B. Acute abdomen in children: US vs CT  
  R.R. van Rijn; Amsterdam/NL
- C. Abdominal trauma: US or not US?  
  M. Valentino; Parma/IT

**Saturday, March 3, 08:30–10:00**
E³ 820b  Volumetric imaging: where are we, where are we going to?

- Moderator: P. Mildenberger; Mainz/DE
- A. Volume imaging in obstetrics and gynaecology  
  C.B. Benson; Boston, MA/US
- B. Volume US: a plus or a new approach to body imaging  
  S.T. Elliott; Newcastle upon Tyne/UK
- C. Why volume imaging and fusion are important for diagnosis and treatment  
  E. Leen; London/UK

**Saturday, March 3, 10:30–12:00**
E³ 920b  Elastography and high frequency US

- Moderator: A.V. Zubarev; Moscow/RU
- A. Breast: when elastography adds to conventional US  
  G. Rizzatto; Gorizia/IT
- B. US of the thyroid gland and the neck  
  S.M. Dudea; Cluj-Napoca/RO
- C. US in musculoskeletal diseases  
  S. Bianchi; Geneva/CH

**Saturday, March 3, 12:15–13:15**
Self assessment test

- Moderator: M. Claudon; Vandoeuvre-les-Nancy/FR
- Interactive computer evaluation of course learning
Thursday, March 1, 14:00–15:30
E³ 220 Acute abdominal inflammatory disorders
A. Colitis and enterocolitis
  C. Hohl; Siegburg/DE
B. Liver and bile ducts
  C.D. Becker; Geneva/CH

Thursday, March 1, 16:00–17:30
E³ 320 Musculoskeletal emergencies
A. Axial skeleton
  E. Llopis; Valencia/ES
B. Peripheral skeleton
  V.N. Cassar-Pullicino; Oswestry/UK

Friday, March 2, 08:30–10:00
E³ 420a Thoracic infections: what the radiologist must report
A. Pulmonary infections
  L.R. Goodman; Milwaukee, WI/US
B. Non-pulmonary chest infections
  C. Schaefer-Prokop; Amersfoort/NL

Friday, March 2, 10:30–12:00
E³ 520a Abdominal emergencies
A. Non-traumatic (acute abdomen)
  R. Basilico; Chieti/IT
B. Traumatic
  D.R. Kool; Nijmegen/NL

Friday, March 2, 16:00–17:30
E³ 720a Neurological emergencies
A. Non-traumatic
  C. Ozdoba; Berne/CH
B. Traumatic
  M. Staigis; Poznan/PL

Saturday, March 3, 08:30–10:00
E³ 820a Infections of the central nervous system: what the radiologist must report
A. ‘Dangerous’ viral and prion infections
  G. Wilms; Leuven/BE
B. Bacterial and parasitic infections
  E.T. Tali; Ankara/TR

Saturday, March 3, 10:30–12:00
E³ 920a Common radiological problems: incidental chest lesions
A. Solitary pulmonary nodule
  E. Castañer; Sabadell/ES
B. Mediastinal mass
  J. Vilar; Valencia/ES

Saturday, March 3, 16:00–17:30
E³ 1120 Malignant pancreatic tumours
A. Solid tumours
  W. Schima; Vienna/AT
B. Cystic tumours
  G. Morana; Treviso/IT

= Interactive session with electronic voting/self assessment
# E³ – European Excellence in Education

## Interactive Teaching Sessions

### Sunday, March 4, 08:30–10:00
**E³ 1220** Common radiological problems: incidental abdominal masses

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| A. | The incidental adrenal mass  
R.H. Reznek; London/UK |
| B. | Renal mass  
M. Prokop; Nijmegen/NL |

### Monday, March 5, 10:30–12:00
**E³ 1720a** Common radiological problems: cardiovascular

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| A. | Looking at the heart in chest x-rays  
J. Andreu; Barcelona/ES |
| B. | Looking at the heart in chest CT  
F. Laurent; Pessac/FR |

### Sunday, March 4, 14:00–15:30
**E³ 1420** Lung cancer

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| A. | Detection  
S. Diederich; Düsseldorf/DE |
| B. | Follow-up  
F. Gleeson; Oxford/UK |

### Sunday, March 4, 16:00–17:30
**E³ 1520** Female pelvic infections: what the radiologist must report

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<td>J.A. Spencer; Leeds/UK</td>
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<td>R. Forstner; Salzburg/AT</td>
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### Monday, March 5, 10:30–12:00
**E³ 1720b** Common radiological problems: palpable lower neck mass – thyroid or not?

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| A. | Thyroid nodule  
H. van Overhagen; Den Haag/NL |
| B. | Outside the thyroid  
N.J.M. Freling; Amsterdam/NL |

### Monday, March 5, 08:30–10:00
**E³ 1620** Breast cancer

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| A. | Detection  
C.S. Balleyguier; Villejuif/FR |
| B. | Follow-up  
G. Forrai; Budapest/HU |

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= interactive session with electronic voting/self assessment
Accompanying Sessions
The first ESOR course on imaging biomarkers is aimed to deal with the following subjects:

- What are biomarkers? Why is there so much interest on them?
- Paradigm shifting from morphology to quantifying function.
- Advice on biomarker development – the actual process and at least one practical worked up example.
- Short overview of some imaging biomarkers from US, CT, MRI and PET.
- The multiparametric paradigm – combination is greater than the parts.
- Bias analysis and clinical integration of the information given by the biomarker.
- The different levels of evidence between imaging biomarker development for clinical use and medicines development.
- Each topic will illustrate which ingredients are needed, how and when those should be used, and the evidence accumulated.

The course programme will include formal lectures, complemented by case discussions on the clinical impact of biomarkers in small groups.

Target audience are board-certified radiologists and residents in the 4th or 5th year of training, interested in functional imaging and biomarkers.
Moderator: L. Martí-Bonmati; Valencia/ES

08:50–09:00: Welcome and introduction

09:00–09:30: Biomarkers: from morphology to quantifying function
L. Martí-Bonmati; Valencia/ES

09:30–10:00: Imaging biomarkers in diffuse liver disease
B. Van Beers; Clichy/FR

10:00–10:30: Imaging biomarkers in cancer
A. Padhani; Northwood/UK

10:30–10:50: Coffee break

10:50–13:00: Clinical impact discussion (in small groups)
L. Martí-Bonmati; Valencia/ES
B. Van Beers; Clichy/FR
A. Padhani; Northwood/UK

13:00–14:00: Lunch break

14:00–14:30: Imaging biomarkers in degenerative cartilage disease
S. Trattnig; Vienna/AT

14:30–15:00: Imaging biomarkers in diffuse kidney disease
N. Grenier; Bordeaux/FR

15:00–15:30: Imaging biomarkers in cardio-vascular disease
J.-P. Vallée; Geneva/CH

15:30–15:50: Coffee break

15:50–18:00: Clinical impact discussion (in small groups)
S. Trattnig; Vienna/AT
N. Grenier; Bordeaux/FR
J.-P. Vallée; Geneva/CH

18:00: Conclusions

18:15: Certificate of attendance

Registration fees: €95 for residents
€120 for non-residents

Registration fees are exclusive 10% VAT.
This course is exclusively for ESR members.

For further information on the course and registration please visit myESR.org/esor
Accompanying Sessions

**Thursday, March 1 to Sunday, March 4**

**Novel technology that shapes radiology: EIBIR presents Imagine (Workshop)**

Coordinator: W. Niessen; Rotterdam/NL

**Friday, March 2, 12:15–13:30**

**5th Post Processing Face-Off Session**

Coordinators: H.-C. Becker; Munich/DE
A. Graser; Munich/DE

**Friday, March 2, 14:00–15:30, Lounge 6, 1st Level**

**EIBIR Session**

Exemplary collaboration activities in imaging research

No matter what the area, networking is always important. Find out all about exemplary collaboration in research. In the interest of research, the European Institute for Biomedical Imaging Research (EIBIR) is very pleased to present its collaboration with excellent research teams, which has led to the successful implementation and exchange of ideas:

- **EuroAIM** – Ongoing projects and perspectives in evidence-based radiology
  F. Sardanelli; Milan/IT

- **Chemistry Platform** – Networking supports probe development for imaging modalities
  S. Aime; Torino/IT

- **Cancer Imaging Working Group** – Potential and usefulness of imaging and research trials
  P. Brader; Vienna/AT

- **Interdisciplinary Biomedical Image Analysis** – A platform boosts analysis research
  W. Niessen; Rotterdam/NL

- **Discussion**

The audience is invited to attend a small reception for an informal discussion (Sunday, March 4, 17:30, Room Z).

**Friday, March 2, 14:00–15:30**

**Radiology Trainees Forum**

**RTF Highlighted Lectures**

Moderators: D. Bulja; Sarajevo/BA
M. Edjlali-Goujon; Paris/FR

- **Molecular imaging: principles and potential applications**
  N. Grenier; Bordeaux/FR

- **Vascular ultrasound: technique and clinical applications**
  B. Brkljačić; Zagreb/HR

- **Chest x-ray in children**
  S. Ryan; Dublin/IE

**Friday, March 2, 16:00–17:30**

**ESOR Session**

Experiencing variety in education

Moderators: N. Gourtsoyiannis; Iraklion/GR
A. Palkó; Szeged/HU

During this session, the European School of Radiology (ESOR) will give an insight into the variety of its educational programmes and opportunities for education in radiology.

- **Introduction**
- **5 years of excellence in education**
- **ESOR in action in 2012**
- **Radiology Fellowships: are they important?**
- **The modern radiologist: from image finder to disease manager**
- **Awards**

On the occasion of the session, scholars and fellows will be awarded certificates for successfully completing the 2011 Visiting Scholarship Programmes and Exchange Programmes for Fellowships.
Accompanying Sessions

Saturday, March 3, 10:30–12:00
Standards and Audit Session
The future of radiological reporting: by whom, where, and how will it be done?

Moderator: E.J. Adam; London/UK

• Structured reporting: the benefits of uniformity of reporting world-wide
  C.E. Kahn; Milwaukee, WI/US

• Teleradiology: more disadvantages than advantages
  R. FitzGerald; Wolverhampton/UK

• Teleradiology: more advantages than disadvantages
  L. Donoso; Barcelona/ES

Saturday, March 3, 10:30–12:00
Undergraduate teaching: the future of radiology

Moderator: D.E. Malone; Dublin/IE

• Why teach undergraduates radiology?
  S.J. Golding; Oxford/UK

• The European scene: lessons from the 2010 survey
  K. Verstraete; Gent/BE

• What and how should we teach undergraduates?
  S. Pedraza; Girona/ES

Saturday, March 3, 14:00–15:30
Image Interpretation Quiz: Let’s interpret with the experts

Moderator: R. Manfredi; Verona/IT
Panellists:
Team 1: S. Bisdas; Tübingen/DE
  C. Dromain; Villejuif/FR
  M. Maas; Amsterdam/NL
  E.J. Stern; Seattle, WA/US

Team 2: B. Gómez-Ansón; Barcelona/ES
  H. Prosch; Vienna/AT
  F.M.H.M. Vanhoenacker; Antwerp/BE
  J. Votrubová; Prague/CZ

Saturday, March 3, 16:00–17:30, Room Z
EIBIR/EuroAIM Session
Ongoing projects and perspectives in evidence-based radiology

Evidence for the rational use of imaging technology is still often lacking. The European Network for the Assessment of Imaging in Medicine (EuroAIM) would like to answer the question: what happens if evidence-based medicine is applied to radiology?

Radiologists and residents are invited to attend the session!

• Evidence-based radiology 2001–2010: the authorship
  F. Sardanelli; Milan/IT

• A multimedia database of meta-analyses on diagnostic imaging
  M. Hunink; Rotterdam/NL

• A prospective European survey on preoperative breast MRI
  R.M. Trimboli; Milan/IT

• Discussion

The audience is also invited to attend a small reception for an informal discussion (Sunday, March 4, 17:30, Room Z).

Sunday, March 4, 13:00–14:00
Junior Image Interpretation Quiz: Mediterranean Sun vs Northern Lights

Moderator: A.P. Parkar; Bergen/NO
Panellists:
Mediterranean Sun: B. Akpinar; Ankara/TR
  A. Moscariello; Rome/IT
  C. Ruivo; Coimbra/PT

Northern Lights: T. Hulkko; Rovaniemi/FI
  M. Mejlænder-Larsen; Oslo/NO
  J. Sharkey; Edinburgh/UK

Referees: B. Marinecek; Cleveland, OH/US
  M. Szcerbo-Trojanowska; Lublin/PL

= Interactive session with electronic voting/self assessment
**ENCITE Session**
**Imaging highlights – monitoring disease and therapy**

In order to address the large variety of cell therapies on the disease-oriented level, the European Network for Cell Imaging and Tracking Expertise (ENCITE) is pleased to announce the development of new MR imaging technologies and biomarkers as well as promising approaches to monitoring disease and therapy.

- **MR imaging using new technologies**
  - 19Fluor USPIOs
- **Monitoring disease and therapy**
  - Imaging the anti-tumour immune response
  - Boosting anti-tumour immune function in mice and patients

**Discussion**
The audience is invited to attend a small reception for an informal discussion (Sunday, March 4, 17:30, Room Z).

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**Euro-BioImaging Session**
**Support of translational imaging research by pan-European research infrastructures**

The session aims to present the progress of Euro-BioImaging, the ESFRI pan-European research infrastructure for imaging technologies in biological and biomedical sciences. Synergies of Euro-BioImaging with other ESFRI research infrastructures from the life science field will be presented along with their potential impact on translational research in imaging.

The audience is invited to attend the reception after this session for an informal discussion (Room Z).
Plenary Sessions

Thursday, March 1, 17:45–19:15
Opening Ceremony
Presentation of Honorary Members
OL (Opening lecture)
Arcimboldo in the service of natural science
Sylvia Ferino-Pagden; Vienna/AT

Friday, March 2, 12:15–13:10
Gold Medal Awards
Josef Lissner Honorary Lecture
The pulmonary nodule: old and new challenges
Cornelia Schaefer-Prokop; Amersfoort/NL

Saturday, March 3, 12:15–12:45
Antonio Chiesa Honorary Lecture
Small is beautiful! The voyage of head and neck imaging into the future
Roberto Maroldi; Brescia/IT

Sunday, March 4, 12:15–12:45
Wilhelm Conrad Röntgen Honorary Lecture
In search of venous thromboembolism: the first 2,912 years
Lawrence R. Goodman; Milwaukee, WI/US
When you’ve checked in to ECR 2012 on foursquare, catch up with the latest #ECR2012 news on twitter, become a fan and post us a photo on facebook and then check out our videos on youtube.

‘ECR 2012’ on foursquare - twitter.com/myESR - facebook.com/myESR - youtube.com/myESR
Basic Sessions

Friday, March 2, 08:30–10:00
Basic Session on Cardiac Radiology

- Cardiac imaging: normal anatomy and variants
  H.U. Ebersberger; Munich/DE
- Cardiac morphology and function: imaging techniques
  U.J. Schoepf; Charleston, SC/US
- Is the stethoscope dead? The role of cardiac imaging in clinical patient management
  R. Vliegenthart; Groningen/NL

Friday, March 2, 10:30–12:00
Basic Session on Neuroradiology

- Imaging of the cranial nerves
  J.H. Gillard; Cambridge/UK
- The ageing brain
  B. Gomez-Anson; Barcelona/ES
- Is the Circle of Willis a circle?
  H.-R. Jäger; London/UK

Sunday, March 4, 08:30–10:00
Basic Session on Musculoskeletal Radiology

- Cartilage imaging
  S. Trattnig; Vienna/AT
- Radiological/anatomical correlation
  E.M. Buck; Zurich/CH
- Ultrasound of the musculoskeletal system
  E. McNally; Oxford/UK

Student Sessions

Friday, March 2, 14:00–15:30
Student Session 1

Programme to be announced

Friday, March 2, 16:00–17:30
Student Session 2

Programme to be announced

Saturday, March 3, 08:30–10:00
Student Session 3

Programme to be announced

Saturday, March 3, 10:30–12:00
Student Session 4

Programme to be announced

Sunday, March 4, 12:30–13:30
Final Student Session

Best student presenter will be awarded by the ESR.

Hands-on workshops for students

For the first time ever, hands-on workshops exclusively for students will be held at the ECR. 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.

Book your preferred hands-on workshop for only €30 in the MyUserArea.

www.myESR.org/MyUserArea

- Workshop 1: Thursday, March 1, 15:30–17:30
- Workshop 2: Saturday, March 3, 15:30–17:30
- Workshop 3: Sunday, March 4, 10:00–12:00
- Workshop 4: Sunday, March 4, 15:30–17:30
At GE, we are committed to helping increase access to healthcare while improving its quality and lowering its cost. Just like physicians everywhere. So by investing in new innovations, we are empowering the world’s healthcare professionals to do what they do best: caring for patients around the world. Every day, doctors are bringing better health to more people—and GE Healthcare technologies are behind them.
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www.hologic.com
Image-Guided Breast Biopsy: How to do it

Coordinator: M.H. Fuchsjäger; Vienna/AT
Speakers: M.H. Fuchsjäger; Vienna/AT
I. Schreer; Kiel/DE
T.H. Helbich; Vienna/AT
Instructors: C.S. Balleyguier; Villejuif/FR
L. Ceugnart; Lille/FR
C. Dromain; Villejuif/FR
R. Gruber; Vienna/AT
M. Locatelli; Gorizia/IT
A. Malich; Nordhausen/DE
K. Pinker; Vienna/AT
L. Rotenberg; Neuilly-sur-Seine/FR
B. Szabo; Szeged/HU
C.F. Weismann; Salzburg/AT
M.N. Wiesmayr; Vienna/AT

Registration: The number of participants for each course is restricted. Participants need to register in advance for the practical training courses (www.myESR.org) as of October 3, 2011, and must pay a fee of €50. Important details, including the schedule for the subscribed courses, are indicated on the confirmation/invoice.

Attendance at the lecture session is mandatory to participate in the pre-registered practical training courses.

Schedule:
Thursday, March 1
SK 225 14:00-15:30 Introductory lectures
Friday, March 2
SK 525 10:30-12:00 MR imaging guidance
SK 625 14:00-15:30 US guidance
SK 725 16:00-17:30 Stereotactic guidance
Saturday, March 3
SK 925 10:30-12:00 MR imaging guidance
SK 1025 14:00-15:30 US guidance
SK 1125 16:00-17:30 Stereotactic guidance
Sunday, March 4
SK 1325 10:30-12:00 MR imaging guidance
SK 1425 14:00-15:30 US guidance
SK 1525 16:00-17:30 Stereotactic guidance

US of the Lower Limb: Groin to Calf

Coordinator: E.G. McNally; Oxford/UK
Speakers: A. Klauser; Innsbruck/AT
C. Martinoli; Genoa/IT
E.G. McNally; Oxford/UK
P. Peetrons; Brussels/BE
Instructors: I. Beggs; Edinburgh/UK
N. Boutry; Lille/FR
A. Bueno; Alcorcon/ES
R. Campbell; Liverpool/UK
M. Court-Payen; Copenhagen/DK
A. Dakhil Delic; Hvidovre/DK
J. De Rooy; Nijmegen/NL
R. Faschingbauer; Innsbruck/AT
A.J. Grainger; Leeds/UK
H. Guerini; Paris/FR
F. Guerra; Innsbruck/AT
J. Healy; London/UK
F. Kainberger; Vienna/AT
A. Klauser; Innsbruck/AT
C. Martinoli; Genoa/IT
A. Muda; Genoa/IT
P.J. O’Connor; Leeds/UK
P. Peetrons; Brussels/BE
M. Ploegmakers; Nijmegen/NL
L.M. Sconfienza; San Donato Milanese/IT
E. Silvestri; Genoa/IT
A. Tagliafico; Genoa/IT
J. Teh; Oxford/UK

Registration: The number of participants for each course is restricted. Participants need to register in advance for the practical training courses (www.myESR.org) as of October 3, 2011, and must pay a fee of €50. Important details, including the schedule for the subscribed courses, are indicated on the confirmation/invoice.

It is recommended that non-experienced users follow the introductory lectures before entering the practical training courses.

Schedule:
Friday, March 2
SK 426 08:30-10:00 Introductory lectures
SK 526 10:30-12:30 Practical training course
SK 626 14:00-16:00 Practical training course
Saturday, March 3
SK 926 10:30-12:30 Practical training course
Satellite Symposia

Industry Hands-On Workshops
Introducing Philips Imaging 2.0 – a completely new approach to radiology. Beyond a collection of technological advancements, Imaging 2.0 represents, above all, a radical shift in the way we think about imaging technology. It’s what allows for exceptional levels of clinical integration, physician collaboration, and patient focus. It means faster, more personalized scans, better image quality, and improved workflow. And ultimately, it means having the tools to succeed in a field that’s never faced more challenges. Welcome to a new era in radiology. Revolutionize the way you practice radiology. Visit www.philips.com/imaging2.0.
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<tr>
<th>Date</th>
<th>Time</th>
<th>Organiser</th>
<th>Programme</th>
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<tbody>
<tr>
<td>Thursday</td>
<td>March 1, 10:30–11:30</td>
<td>Satellite Symposium organised by Siemens Healthcare</td>
<td>3D tomosynthesis: opportunities for breast cancer imaging</td>
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<td>Moderator: T. Mertelmeier; Erlangen/DE</td>
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<td>T. Mertelmeier; Erlangen/DE</td>
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<td>• 3D breast tomosynthesis established role in breast cancer diagnosis: a user report</td>
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<td>J. Barkhausen; Lübeck/DE</td>
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<td>• 3D breast tomosynthesis emerging role in breast cancer screening: first study results</td>
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<td>I. Andersson; Malmö/SE</td>
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<td>• 3D breast tomosynthesis and contrast enhanced dual energy: a prototype report</td>
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<td>T.H. Helbich; Vienna/AT</td>
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<td>• Panel discussion</td>
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<td>Thursday</td>
<td>March 1, 12:30–13:30</td>
<td>Satellite Symposium organised by Siemens Healthcare</td>
<td>Programme to be announced</td>
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<tr>
<td>Thursday</td>
<td>March 1, 12:00–13:30</td>
<td>Satellite Symposium organised by Siemens Healthcare</td>
<td>Imaging for breast cancer therapy planning, execution and control</td>
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<td>Moderator: J. Barkhausen; Lübeck/DE</td>
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<td>J. Barkhausen; Lübeck/DE</td>
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<td>• 3D breast ultrasound: a poor man's MRI?</td>
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<td>M.J.C.M. Rutten; 's-Hertogenbosch/NL</td>
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<td>• Potential role of digital breast tomosynthesis (DBT) in breast cancer diagnosis</td>
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<td>N. Uchiyama; Tokyo/JP</td>
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<td>• Impact of imaging on staging, planning and treatment delivery in curative breast cancer radiotherapy</td>
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<td>S. Bodis; Aarau/CH</td>
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<td>• From control to prediction, moving forward in the field of neoadjuvant chemotherapy</td>
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<td>R.M. Mann; Nijmegen/NL</td>
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<td>• Panel discussion</td>
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<tr>
<td>Thursday</td>
<td>March 1, 14:30–16:00</td>
<td>Satellite Symposium organised by Siemens Healthcare and Bayer Healthcare</td>
<td>Programme to be announced</td>
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<tr>
<td>Friday</td>
<td>March 2, 12:30–13:30</td>
<td>Satellite Symposium organised by Bayer Healthcare</td>
<td>Leading the way in contrast-enhanced MR imaging</td>
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<td>Moderator: F. Sardanelli; San Donato/IT</td>
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<td>• Choice of contrast in CNS MRI: what is the impact?</td>
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<td>N. Anzalone; Milan/IT</td>
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<td>• More than 10 years of experience with Gadovist®</td>
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<td>F. Sardanelli; San Donato/IT</td>
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<td>• VALUE of Primovist® MRI vs CE-MRI and MDCT for staging of patients with liver metastases</td>
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<td>C.J. Zech; Munich/DE</td>
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<tr>
<td>Friday</td>
<td>March 2, 12:30–13:30</td>
<td>Satellite Symposium organised by GE Healthcare</td>
<td>Innovations in MRI imaging</td>
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<td>Programme to be announced</td>
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<td>Friday</td>
<td>March 2, 12:30–13:30</td>
<td>Satellite Symposium organised by Bracco</td>
<td>Programme to be announced</td>
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<td>Friday</td>
<td>March 2, 12:30–13:30</td>
<td>Satellite Symposium organised by Philips Healthcare</td>
<td>Programme to be announced</td>
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<td>Saturday</td>
<td>March 3, 12:30–13:30</td>
<td>Satellite Symposium jointly organised by Siemens Healthcare and Bayer Healthcare</td>
<td>Synergies in CT – for better patient care</td>
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<td>Moderator: J.E. Wildberger; Maastricht/NL</td>
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Together let's celebrate the clinical image and its potential to improve care for more patients around the globe.

The medical image continues to grow in importance for the diagnosis and treatment of diseases. As a direct result of the imaging innovations of the past decades, today diseases can be detected earlier and better. Treatment decisions can be made with higher confidence based on more specific clinical information. Medical procedures get less and less invasive, with reduced dose and less open surgery. And, higher affordability of imaging and higher productivity with imaging enable more and more nations around the globe to give their populations access to modern care. With that, imaging today contributes significantly to advancing human health. We at Siemens are passionate about innovation that advances human health. Together with you we want to celebrate the medical image and its potential to do just that.

Come and visit us at ECR 2012 to see our latest imaging innovations, leading the way.

Images, leading the way.
**Satellite Symposium**

**Saturday, March 3, 12:30–13:30**
Satellite Symposium organised by Guerbet

Vessel and muscle in coronary heart disease

Moderator: S. Plein; Leeds/UK

- Introduction
  S. Plein; Leeds/UK
- Updated developments in coronary MSCT in patients with atrial fibrillation
  M. Dewey; Berlin/DE
- Detection of occult myocardial infarcts and coronary stenosis in asymptomatic diabetic patients
  T.-H. Lim; Seoul/KR
- Why not having both with cardiac hybrid imaging?
  O. Gämperli; Zurich/CH
- Questions and answers
  S. Plein; Leeds/UK

**Saturday, March 3, 13:30–17:30**
Satellite Symposium organised by Hitachi

Programme to be announced

**Saturday, March 3, 14:00–15:30**
Satellite Symposium organised by Hologic

Emerging technologies in breast cancer detection with an emphasis on breast tomosynthesis

Programme to be announced

**Saturday, March 3, 14:00–15:30**
Satellite Symposium organised by Siemens Healthcare

Creating the future of MRI

Moderator: C.D. Claussen; Tübingen/DE

- Welcome
- Creating the future of MRI
  C. Zindel; Erlangen/DE
- 3T MRI – between a luxury good and clinical necessity
  A. McKenna-Küttner; Frankfurt/DE
- How to address workflow challenges in a broad spectrum MRI-service: first experiences with Dot
  C. Bremer; Münster/DE
- Biograph mMR – clinical reality of simultaneous MR-PET and future realm of possibilities
  C.D. Claussen; Tübingen/DE
Bracco. The Contrast Imaging Specialists.

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Don’t miss the Bracco symposia at ECR: Stay tuned…more to come!

Portfolio

You

Science

Services

Committed to Science, Committed to You.™

www.braccoimaging.com
**Saturday, March 3, 14:00–15:30**
Satellite Symposium organised by Toshiba

Programme to be announced

**Saturday, March 3, 14:00–15:30**
Satellite Symposium organised by GE Healthcare

From in-vivo to in-vitro, enabling personalised cancer care

- Is there any advantage of volume navigation and needle tracking techniques in the management of oncology patients?
  T. Albrecht; Berlin/DE

**Sunday, March 4, 12:30–13:30**
Satellite Symposium organised by GE Healthcare

New paradigm in CT imaging capabilities and patient care

Moderator: J. de Mey; Brussels/BE

- Introduction
  J. de Mey; Brussels/BE
- Preserving diagnostic image quality with new CT reconstruction techniques and low concentration Iso-osmolar contrast media
  J.-L. Sablayrolles; St. Denis/FR
- Dose in paediatric imaging: how low can we go?
  C. Ernst; Brussels/BE
- New advances in cardiovascular CT to lower dose and improve diagnosis
  G. Pontone; Milan/IT
- Questions and answers


Gadovist® 1.0 mmol/mL solution for injection. Composition:

1 mL solution for injection contains 604.72 mg gadobutrol (equiv. 1.0 mmol) as active ingredient.

Excipients:
calcobutrol sodium, tromethamol, hydrochloric acid, water for injections.

Indications:
This medicinal product is for diagnostic use only. Gadovist® 1.0 is indicated in adults, adolescents, and children aged 7 years and older for:

- Contrast enhancement in cranial and spinal magnetic resonance imaging (MRI),
- Contrast enhanced MRI of liver or kidneys in patients ...
- to classify these lesions as benign or malignant,
- contrast enhancement in magnetic resonance angiography (CE-MRA).

Contraindications:
Hypersensitivity to the active substance or any of the excipients.

Special warnings and precautions for use:
While injecting Gadovist® into veins with a small lumen there is the possibility of adverse effects such as reddening and ...

To be able to react immediately to an emergency, medicinal products and equipment (e.g. endotracheal tube and respirator) ...

Severe cardiovascular disease: In patients with severe cardiovascular disease Gadovist® should only be ...

Congenital long QT syndrome or a family history of congenital long QT syndrome; 2.) with known previous arrhythmias after ...

Hypokalemia: Gadovist® should not be used in patients with uncorrected ...

Impaired renal function: Prior to administration of Gadovist®, it is recommended that all patients are ...

Gadovist® should be used with caution in patients with acute or chronic severe renal impairment (GFR < 30 ml/min/1.73m2). Patients undergoing ...

As there ...

As the renal clearance of gadobutrol may be impaired in the elderly, it is particularly important to screen patients aged ...

Seizure disorders: Like with other gadolinium containing contrast agents special precaution is necessary in patients with a low threshold for seizures.

Undesirable effects:
The following adverse reactions have been observed in clinical trials. Uncommon (≥ 1/1,000 to < 1/100): Headache, dizziness, paresthesia, dysgeusia, nausea, vasodilatation, injection site pain, injection site reaction. Rare (≥ 1/10,000 to < 1/1,000): Anaphylactoid reaction, parosmia, hypotension, dyspnoea, ...

Additional safety information:
Short-lasting mild to moderate feelings of coldness, warmth or pain at the injection site have been uncommonly observed in association with the venous puncture or contrast medium injection. On ...

Hypersensitivity reactions (e.g. ...

Date of revision of text:
June 2011

Please note:
for current prescribing information refer to the package insert and/or contact your local Bayer HealthCare organisation. Bayer Pharma AG, 13342 Berlin, Germany. Adverse reactions can be reported to GPV.CaseProcessing@bayerhealthcare.com
Industry Hands-On Workshops

Thursday, March 1 to Sunday, March 4, Siemens Experience Lounge, Entrance Level
Industry Hands-On Workshop organised by Siemens Healthcare

Clinical experts will demonstrate how to better use and further benefit from our solutions for advanced multi-modality 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 2012 these workshops are free of charge. Programme to be announced.

Friday, March 2 to Monday, March 5, aycan Hands-On Workshop Room, Lower Level
Industry Hands-On Workshop organised by aycan

About OsiriX PRO
Medical images present a steadily growing challenge. In these hands-on workshops, we introduce you to the latest state in medical image post-processing. Attendees can immediately follow the demonstrated contents on Apple Macintosh workstations at hand. OsiriX is an excellent open source software which meets this challenge and was decorated with multiple international awards. The software in use is OsiriX PRO – the only class IIb CE-labelled and class II FDA-cleared version of OsiriX.

Topics covered:
OsiriX PRO basics, import/export, 2D-viewer, reviewing, Thickslab/MPR/MIP, teleradiology with iPad, volumetric analysis, 3D volume rendering, segmentation, bone removal, fusion, 3 point based registration, 4D analysis, vessel analysis

Friday, March 2 to Monday, March 5, Hologic Hands-On Workshop Room, Level 01
Industry Hands-On Workshop organised by Hologic
Giovanni Guido Cerri
São Paulo, BR
Honorary Member

Giovanni Guido Cerri is Secretary of Health for São Paulo State. He is Professor of Radiology and Director of the Institute of Radiology at the Hospital das Clínicas, Faculty of Medicine, University of São Paulo, Brazil. A specialist in abdominal imaging, he has notably served as President of the World Federation for Ultrasound in Medicine and Biology, as well as the Latin American Federation of Ultrasonography Societies and the Brazilian College of Radiology. He has published 300 scientific articles in Brazilian and international journals, 22 books, and about 50 newspaper and magazine articles. He has been a thesis advisor to 48 students and has held conferences in 25 countries. He has received more than 30 awards, including the LAFI Medical Sciences Award, and several honorary distinctions granted by Brazilian and international societies for his work in the medical field. At ECR 2012 he will be awarded Honorary Membership of the ESR.

Burton P. Drayer
New York, NY/US
Honorary Member

Burton Paul Drayer is currently the Dr. Charles M. and Marilyn Newman Professor and Chairman of the Department of Radiology (1995 to present) Mount Sinai School of Medicine and the Executive Vice President for Risk at The Mount Sinai Medical Center. Internationally known for his CT and MRI research on the aging brain and neurodegenerative disorders, brain infarction, multiple sclerosis, and physiological and functional brain imaging, Dr. Drayer has written over 200 publications as well as multiple book chapters. He has been on numerous editorial boards and was the editor of Neuroimaging Clinics of North America from 1990 to 2005. Dr. Drayer was elected President of the ASNR in 1996, was the inaugural Chairman of its Research Foundation, and was awarded the ASNR Gold Medal in 2011. In 2003, Dr. Drayer was elected to the Board of Directors of the RSNA and in 2009 ascended to Chairman of the Board, 2010 President elect, and 2011 RSNA President. At ECR 2012 he will be awarded Honorary Membership of the ESR.

Moshe Graif
Tel Aviv, IL
Honorary Member

Moshe Graif is Chairman of the Department of Medical Imaging at the Tel Aviv Sourasky Medical Center and Professor of Medical Imaging at the Faculty of Medicine of Tel Aviv University. A pioneer in musculoskeletal ultrasound imaging, he has also had a particular interest in general ultrasound, MRI and IT technologies, and strategic issues in radiology. For the past 12 years, he has been Chairman of the Israel Radiological Association, which notably took part in the ‘ESR meets’ programme at ECR 2008. He is a member of the executive committee of the Scientific Council of the Israel Medical Association, member of the National Council of Medical Imaging for the Israeli Ministry of Health and Chief Radiology Counselor for Maccabi Health Services Organization. He has received honorary membership and the Gold Medal of the French Radiological Society. At ECR 2012 he will be awarded Honorary Membership of the ESR.
Christian J. Herold
Vienna/AT
Gold Medallist

Christian J. Herold is Professor and Chairman of the Department of Radiology of the Medical University of Vienna, Vienna General Hospital (1996 to present), Director of International Affairs at the same institution, and a part-time faculty member of Johns Hopkins Medical Institutions, Baltimore, USA. Renowned internationally for his work as a thoracic radiologist, he has written 143 peer-reviewed journal publications, authored numerous books and chapters, delivered more than 300 invited lectures, and served as President of both the Fleischner Society (2005–2006) and the European Society of Thoracic Imaging (1999–2005). Among his many honours he was presented with the Hounsfield Award in 1991 by the Society of Computed Body Tomography and Magnetic Resonance. Prof. Herold served as President of the European Congress of Radiology in 2007 and the European Society of Radiology from March 2009 to March 2010. He also held the presidency of the International Society of Strategic Studies in Radiology from 2009 to 2011. At ECR 2012 he will receive the Gold Medal of the ESR.

Hedvig Hricak
New York, NY/US
Gold Medallist

Hedvig Hricak is Chairman of the Department of Radiology at Memorial Sloan-Kettering Cancer Center (MSKCC) and Professor of Radiology at the Weill Medical College of Cornell University, New York. She was previously a professor of radiology, radiation oncology, urology and gynaecology at the University of California at San Francisco. She has authored or co-authored 345 peer-reviewed original research articles, 164 review/editorial articles, 133 book chapters and 18 books. She is a member of the Institute of Medicine, National Academy of Sciences, and a fellow of the American College of Radiology, the International Society for Magnetic Resonance in Medicine, and the Society of Uroradiology. Her many awards include the gold medals of the International Society for Magnetic Resonance in Medicine and the Association of University Radiologists, the Béclère Medal from the International Society of Radiology, the Moroccan Merit Medal from the International Society of Radiology, an honorary doctorate in medicine from the Ludwig Maximilians University of Munich, and the Order of the Croatian Morning Star of Katarina Zrinska, Presidential Award from Croatia. Dr. Hricak is currently President of the International Society for Strategic Studies in Radiology and is immediate Past President of the Radiological Society of North America. At ECR 2012 she will receive the Gold Medal of the ESR.

Iain W. McCall
Oswestry, UK
Gold Medallist

Iain W. McCall is Consultant musculoskeletal radiologist at Oswestry’s Orthopaedic Hospital and Professor of Radiological Sciences at the University of Keele. He is also Medical Director of the Oswestry Orthopaedic Hospital Trust, and is currently involved in a large multicentre study on the relationship between disc degeneration, MRI changes and genetics. He has actively contributed to the development of international standards for teleradiology and produced guidance documents on good radiological practice and teleradiology. He served as editor of Skeletal Radiology for many years and was President of the International Skeletal Society, which recently awarded him its Gold Medal. He was deputy editor of Clinical Radiology and is currently editor of Imaging Management. From March 2008 to March 2009 he presided over the ESR, which he co-created and has helped develop since 2005. He received Honorary Membership from the RSNA and many other societies, including the French Society of Radiology and the European Society of Musculoskeletal Radiology. At ECR 2012 he will be presented with the Gold Medal of the ESR.
Małgorzata Szczerbo-Trojanowska
Lublin, PL
Gold Medallist

Małgorzata Szczerbo-Trojanowska is Professor of Radiology, Chairman of the Department of Radiology and Head of the Department of Interventional Radiology and Neuroradiology at Lublin Medical University. A pioneer in interventional radiology, she co-founded the Interventional Radiology Section of the Polish Medical Society of Radiology in 1978 which she headed between 1980 and 1990. She presided over the Polish Medical Society of Radiology in 2001–2004. She was also a co-founder of the Polish Society of Magnetic Resonance and served on the Executive Board for ten years. She has been Chairman of the Radiology Committee of the Polish Academy of Sciences since 2007. In 2010 she was appointed ECR President and served on the Executive Council of the Cardiovascular and Interventional Radiological Society of Europe in 2005–2007. She has authored and co-authored 204 peer-reviewed publications, 10 monographs and book chapters, and has given over 250 scientific presentations, including more than 100 invited lectures, all over the world. At ECR 2012 she will be presented with the Gold Medal of the ESR.

Sylvia Ferino-Pagden
Vienna, AT
OL (Opening lecture)

Sylvia Ferino-Pagden is Director of Painting at the Kunsthistorisches Museum (KHM) in Vienna. Her long-time interest has been the Italian Renaissance and she has been Curator of Italian Renaissance Painting at the KHM since 1988. She is also Director of KHM’s research projects, which are supported by external institutions, such as Scientific examinations (x-ray, infrared and chemical analysis) of the paintings by Titian. She has received many awards for her work, including the Cruz de Oficial del Merito Civil order by the Spanish kingdom, the order of the Ufficiale della Reppublica Italiana and the premium Daria Borghese for the best foreign language exhibition catalogue in the field of art history (Vittoria Colonna – Dichterin und Muse Michelangelos). She will present the Opening Lecture ‘Arcimboldo in the service of natural science’ echoing her recent exhibition in Milan and the ECR 2012 poster.
Lawrence R. Goodman
Milwaukee, WI/US
Honorary Lecturer

Lawrence R. Goodman is Professor of Pulmonary Medicine & Intensive Care and Chief of Thoracic Imaging at the Medical College Wisconsin in Milwaukee. He was one of the original members of the Society of Thoracic Radiology, where he served on the Organizing Committee and as President. He has also served as President of the Fleischner Society. His work focuses in particular on intensive care imaging, and imaging of adult respiratory distress syndrome and pulmonary thromboembolic disease. He has published nearly 150 influential papers, mainly focusing on these areas. His paper ‘Detection of pulmonary embolism in patients with unresolved clinical and scintigraphic diagnosis: Helical CT vs angiography’ was, notably, the 18th most-cited article in the American Journal of Radiology over the last century. At ECR 2012 he will give the Wilhelm Conrad Röntgen Honorary Lecture ‘In search of venous thromboembolism: the first 2,912 years’.

Roberto Maroldi
Brescia/IT
Honorary Lecturer

Roberto Maroldi is Head of the Department of Radiology at the University of Brescia, Italy, where he has worked since 1982. He is also Assistant Professor of Otorhinolaryngology and Nephrology at the Postgraduate School of Radiology, and at the Medical School of the University of Brescia (Radiodiagnosis and Radiation Therapy for the Course of Medicine; General and Dental Radiology for the Odontostomatolog Course). His career has focused on the oncological aspects of head and neck lesions in several anatomical regions, and analysis and assessment of the diagnostic roles of CT and MR. He has authored more than 140 publications covering subjects on general and head and neck radiology, radiological planning and computer applications. He is a member of the Italian Society of Radiology, the Italian Society of Otorhinolaryngology and Maxillofacial Surgery, and the European Society of Head and Neck Radiology. He also served as a member of the board of the Italian Society of Radiology (SIRM) from 1994 till 1998 and as President of the Section of Head and Neck Radiology of SIRM from 1996 till 2000. He was a co-founder and Board Member of the Italian Head and Neck Society in 2011. At ECR 2012 he will present the Antonio Chiesa Honorary Lecture ‘Small is beautiful! The voyage of head and neck imaging into the future’.

Cornelia M. Schaefer-Prokop
Amersfoot/NL
Honorary Lecturer

Cornelia M. Schaefer-Prokop is Associate Professor of Radiology at Hanover Medical School, Germany. She works at the Radiology Department of Meander Medical Center, Amersfoort, the Netherlands, and has research affiliations with Radboud University Nijmegen and the Academic Medical Center in Amsterdam. Her main areas of research are digital radiography (image processing and dose containment), computer-aided diagnosis in CT and radiography, high resolution CT of interstitial lung diseases, and diagnosis and staging of bronchogenic carcinoma. A highly respected thoracic radiologist, she is a member of the Fleischner Society, has served as General Secretary of the European Society for Thoracic Imaging, and sits on the editorial boards of the Journal of Thoracic Radiology and European Radiology. She has authored two books, numerous book chapters, and more than 100 publications in peer reviewed journals, and has delivered around 230 scientific presentations and more than 200 invited presentations. At ECR 2012 she will present the Josef Lissner Honorary Lecture ‘The pulmonary nodule: old and new challenges’.
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