

# ECR 2011

## Preliminary Programme

First Edition





*ESR  
welcomes  
you ...*



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# Introducing the ECR 2011 Congress President ...

By **Mélanie Rouger**

Yves Menu from Paris is professor of radiology at Pierre et Marie Curie – Paris VI University, Chairman of the department of radiology at the Hospital Saint Antoine and the third Frenchman to head the European Congress of Radiology. In an interview originally conducted for *ECR Today* back in March, he revealed his plans and ambitions for his tenure. From changing session formats to extending deadlines, he has prepared a programme that is up to date with clinical realities, to let every radiologist benefit from the latest innovations in their field. Here he discloses some of next year's congress highlights.

## **ECR Today: What are your ambitions and plans for ECR 2011?**

**Yves Menu:** In 2011, we will introduce a number of innovations, starting with two categorical courses that will address more than pathology. The first course will focus on musculoskeletal MRI and place report writing at the centre of the sessions. There is still a great disparity between the reports written by radiologists, so we decided to follow the existing guidelines to teach participants what is important to clinicians. Each of the course's eight sessions will have the same format, with three lectures: the optimal protocol, the imaging signs, and the report. This course will be called 'Keep It Simple and Straightforward', using the acronym KISS; a little reference to ECR 2011's French presidency.

The second course, 'Clinical Lessons for Imaging Core Knowledge' (CLICK), will be symptom rather than disease-oriented. It will present the main symptoms the clinician is faced with, and how the radiologist can help treat them. This approach seems more appropriate to the reality of clinical practice. Each of the sessions will feature three presentations. In the first, a radiologist will focus on the clinical background that the radiologist should know; in the second, diagnostic strategies and imaging tools will be compared; the third will deal with imaging signs. This order better fits the role of the radiologist, which is to understand clinical questions based on patients symptoms and advise the clinician on the procedures to implement.

A third point, which is also particularly important to me, will focus on the functional imaging of tumours. We could even use a James Bond inspired subtitle, namely 'The tumoural cell: live and let die', because this is how we increasingly treat tumours today, by using targeted therapies which attack the metabolism

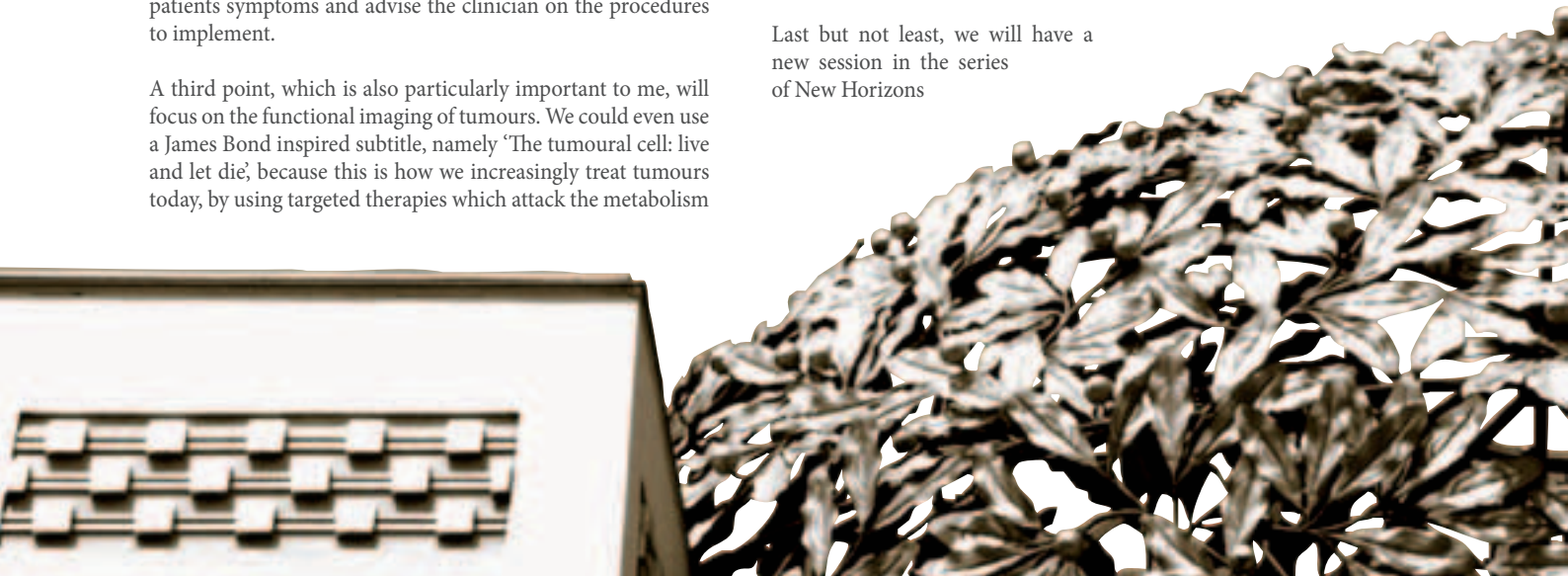
of the tumoural cell rather than trying to kill the tumour with cytotoxic chemotherapy or drugs. Perfusion CT, MR or US, tumour spectroscopy and PET/CT enable assessment of the efficiency of the targeted therapy by depicting tissue structure alterations, perfusion and metabolism. Every radiologist knows about these techniques, but they are only very rarely put into practice because they are presented in such a complicated way that they are hard to understand! In this mini course, we will explain how to implement functional imaging in clinical routine so that most radiologists will finally be able to benefit from it.

## **ECRT: What will be the scientific highlights regarding new technologies?**

**YM:** Actually, we will concentrate quite heavily on old techniques! Basic radiology is more and more neglected in favour of new tools such as CT. But even if thoracic CT is increasingly used, thoracic radiography remains one of the most widespread examinations worldwide. If we do not pay attention now, radiologists might soon become unable to read conventional x-ray images. Three years ago, we had a course on thoracic radiography, and were pleasantly surprised by the extremely high number of participants – over 600. So in 2011, there will be a course of one hour every day dedicated to thoracic radiology and accessible to 50 participants. This new course format, 'The beauty of basic knowledge', will hopefully become a series at ECR.

ECR 2011 will also innovate in the composition of the sessions. All the Special Focus and State of the Art Sessions, as well as some Refresher Courses, will have a different format, whereby more importance will be given to the chairman. We have shortened the lectures, and the last 15 to 30 minutes will be dedicated to a discussion in which the speakers will debate clinical cases. The chairman will either organise the discussion or he or she will present a synthesis, sometimes relevant clinical cases. The aim is to heighten interactivity between the chairman and the speakers.

Last but not least, we will have a new session in the series of New Horizons





Sessions, which will focus on how a particular specialty will evolve over the next 15 years. Radiologists who are now choosing a specialty will be fully working with it by 2025, so it could be interesting for them to picture their future. The topic will be breast imaging.

**ECRT:** What do you think of the initiative 'ESR meets partner disciplines'? Will there be another discipline invited to ECR 2011?

**YM:** Of course this feature will be continued for 2011! This is a very interesting session, in which specialists can exchange knowledge in a truly friendly atmosphere. In 2011, gastroenterologists will be our guests, led by the United European Gastroenterological Federation.

**ECRT:** ECR 2009 saw a new initiative for students from the

Congress President's home country, inviting 25 future radiologists to the congress and providing them with free accommodation and flight tickets. In 2010 this feature was repeated and will be again for 2011. What do you think of this initiative?

**YM:** It is a very good initiative and it certainly helps residents to decide upon a career in radiology. Young people are our future and we want to help them make the right decision. We will try to come up with other initiatives of this kind in 2011.

**ECRT:** What may delegates expect in terms of the social programme – a French theme?

**YM:** There will not be a special French theme as such, but we will bring something cultural to the 'ESR meets' programme.

The French delegation will present an extra chapter on wine and champagne radiology, by explaining how we can enjoy the qualities of wine thanks to imaging, for instance how

spectroscopy analysis enables the prediction of wine quality without having to open the bottle. Not only the French will present an additional session; the Brazilian delegation will also focus on Samba!

**ECRT:** You are Professor of Radiology at Pierre et Marie Curie – Paris VI University, Chairman of the department of radiology at the Hospital Saint Antoine, and President of the European Society of Gastrointestinal and Abdominal Radiology (ESGAR). Do you have any time left for hobbies, and if yes which ones?

**YM:** Yes of course, I am currently taking my motorbike driving test licence and I am very fond of cycling. I also try to spend as much time as possible with my five children, especially my youngest, who is two and a half years old.

**ECRT:** How did you decide to become a radiologist?

**YM:** I decided upon this career because of its very nice environment. In my experience, being a radiologist is also a great way to meet many patients, even more so when you work in a hospital. Finally, it leads one to work with all the other medical specialties. Radiology is a crossroad between doctors, patients and specialties, and I love this. In 30 years of practice, I haven't come to regret it!

**ECRT:** When was your first ECR? What has improved since then?

**YM:** I have been coming to ECR regularly since 1995. I have noticed a real, growing improvement in the quality of the scientific sessions. It has also experienced a dramatic improvement in its educational contribution, namely in the assessment of courses and lectures. Last but not least, ECR presents a new innovation each year, which contributes to increasing the quality of the congress.

**ECRT:** How does ECR compare to other radiological congresses?

**YM:** ECR is clearly the best general scientific and educational congress worldwide. It offers a very wide range within its programme, and has one of the highest average room attendances. There is no difference between the number of delegates attending scientific sessions and those taking part in educational courses. It is quite relevant to point this out because, while many congresses give more and more space to continuing education, ECR manages to promote both education and science. Finally, ECR is also ahead regarding its technical exhibition.





A scenic landscape featuring a vast field of purple lavender in the foreground. In the middle ground, there are several large, dark green trees. The background shows a range of mountains under a blue sky with wispy white clouds. The overall atmosphere is peaceful and romantic.

# *Chœur d'amour*

Gérard de Nerval (1808–1855)





Ici l'on passe  
Des jours enchantés!  
L'ennui s'efface  
Aux cœurs attristés  
Comme la trace  
Des flots agités.

Heure frivole  
Et qu'il faut saisir,  
Passion folle  
Qui n'est qu'un désir,  
Et qui s'envole  
Après le plaisir!

Here we spend  
Days of gladness!  
Ennui's at an end  
In hearts of sadness  
Like the bend  
Of waves of madness.

Frivolous moments  
One must treasure,  
Passion that foment  
Desire without measure,  
The swift-run romance  
After pleasure!



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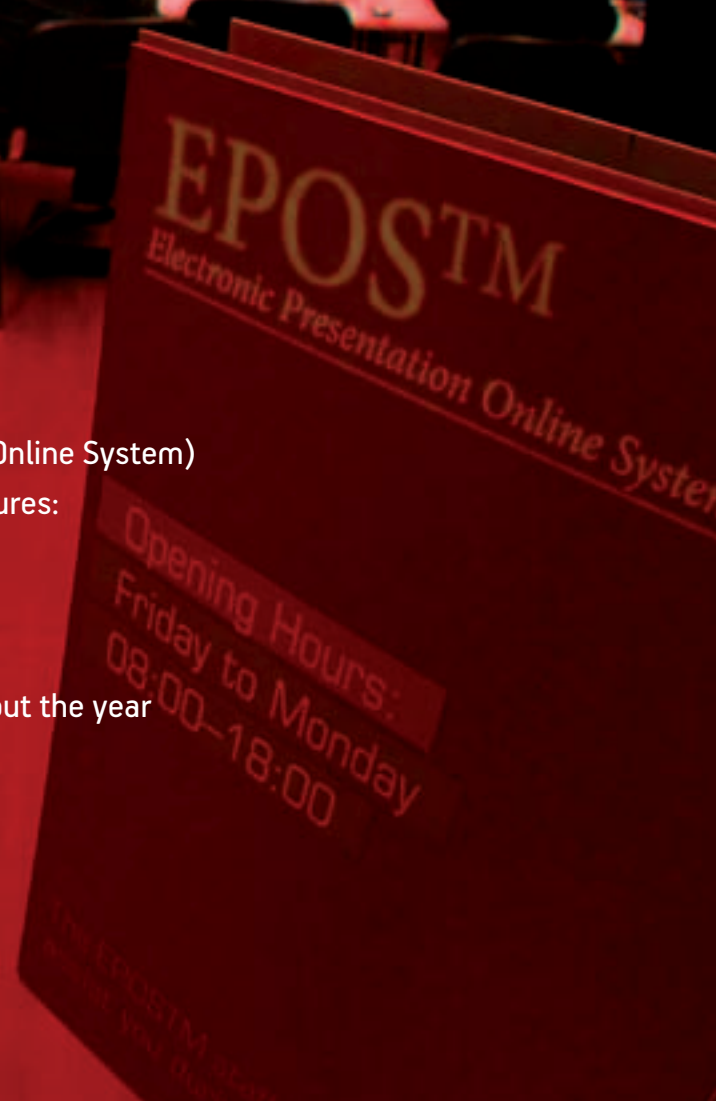
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# Your Timeline to ECR 2011

<b>April 2010 – January 2011</b>	All-year Online Abstract Submission to EPOS™
<b>July 5 – September 18</b>	Paper Abstract Submission (Oral Presentations)
<b>September 1</b>	Online Registration Open
<b>October 1</b>	Travel & Accommodation Service Open
<b>November</b>	Invest in the Youth Support Programme Application Open
<b>November</b>	Participate from Home Registration Open
<b>November</b>	Notification of Paper Abstract Acceptance (Oral Presentations)
<b>December 1</b>	Online Submission of Accepted Exhibits to EPOS™ Open
<b>March 3–7</b>	<b>ECR 2011 (Thursday to Monday)</b>

## Congress Venue

Austria Center Vienna  
Bruno Kreisky Platz 1  
1220 Vienna, Austria

## Congress Language

English

## CME Accreditation

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

ECR 2011 is expected to be designated for a maximum of 27 hours of European external CME credits.

## Facts & Figures

**19,000 Participants**

**100 Countries**

**270 Scientific and Educational Sessions**

**4,300 Accepted Proffered Papers and Exhibits**

**Fully Electronic Scientific Exhibition**

**Industrial Exhibition**

approx. 285 exhibitors  
26,000 m<sup>2</sup>

## Scientific and Educational Programme

- 3 Honorary Lectures
- 1 Opening Lecture
- 1 Guest Lecture
- 4 ESR meets Sessions
- 2 Image Interpretation Quizzes
- 3 New Horizons Sessions
- 3 State of the Art Symposia
- 14 Special Focus Sessions
- 4 Professional Challenges Sessions
- 3 Categorical Courses (18 Sessions)
- 4 Mini Courses (15 Sessions)
- 74 Refresher Courses
  - 1 Foundation Course:
    - Paediatric Radiology (6 Sessions)
- 14 Interactive Teaching Sessions
  - 1 e-Learning Centre with Self Assessment Tests
  - 1 RTF – Radiology Trainees Forum:
    - Highlighted Lectures Session
  - 2 Update Your Skills (Practical Courses)
  - 1 EFOMP Workshop
  - 1 ESOR Session
  - 1 Standards and Audit
  - 1 Hospital Management Symposium
  - 1 Workstation Face-Off Session
- Satellite Symposia & Industry Hands-on Workshops



# ESR meets France, B

By Simon Lee

Despite the first and last words of our society's name, it should be perfectly clear to anyone familiar with our work that the outlook of the European Society of Radiology (ESR) is by no means limited to Europe, or even simply radiology. The focus and appeal of our society and particularly our annual meeting, the European Congress of Radiology (ECR), are increasingly broad, as is obvious from attendance at our annual meeting and from the 'ESR meets' programme in particular. In the name of forging bonds between countries and disciplines, highlighting issues, and promoting exchange, 'ESR meets' invites three guest countries and one international society representing a partner discipline to take part in ECR every year, with the respective societies each hosting a full session.

**Friday, March 4, 10:30–12:00**

**ESR meets France**

**EM 1 From neurosciences to clinical practice**

**France**, the home country of ECR 2010 President Prof. Yves Menu, will be this year's only 'ESR meets' country from Europe and will represent the continent with a promising sounding session, entitled 'From Neurosciences to Clinical Practice'. With lectures on demyelinating diseases, functional imaging and stroke imaging, the French session will offer an interesting range of topics to showcase the country's radiological talents, as well as French flavoured interludes.

**Presiding:**

Y. Menu; Paris/FR

J.-P. Pruvo; Lille/FR

• **Introduction**

J.-P. Pruvo; Lille/FR

• **White is white:**

a simple guide to demyelinating diseases

V. Dousset; Bordeaux/FR

• **Interlude**

• **Functional imaging: useful tool for the radiologist or crystal ball for the psychiatrist?**

A. Krainik; Grenoble/FR

• **Interlude**

• **Stroke around the clock:**

will the challenger (CT perfusion)

beat the champion (diffusion MRI)?

X. Leclerc; Lille/FR

• **Panel discussion**





# Brazil, Iran

**Friday, March 4, 16:00–17:30**  
**ESR meets Gastroenterologists**

**EM 2 Optical and virtual colonography: friends or enemies?**

Following in the footsteps of previous partner disciplines (general practitioners, emergency medicine, neurology) the ESR has invited **gastroenterologists** to take part in this year's programme. The United European Gastroenterology Federation (UEGF) has organised a session entitled 'Optical and virtual colonography: friends or enemies' which should give ECR participants a brilliant opportunity to gain an insight into the relationship between the two techniques from a gastroenterologist's perspective.

**Presiding:**

R. Hultcrantz; Stockholm/SE  
 Y. Menu; Paris/FR

• **Chairmen's Introduction**

R. Hultcrantz; Stockholm/SE  
 Y. Menu; Paris/FR

- **Facts from the statistician (true for once?): incidence, prevalence, rationale for screening, standard results of optical colonoscopy**  
 U. Haug; Heidelberg/DE

- **Facts from the statistician (true for once?): how accurate is CT colonography**  
 A. Laghi; Latina/IT

- **When optical beats virtual**  
 J.F. Riemann; Ludwigshafen/DE

- **When virtual beats optical**  
 S.A. Taylor; London/UK

- **Panel discussion: Integrated strategy? What about the outsiders (capsule, DNA, PET, ...)**

**Saturday, March 5, 10:30–12:00**  
**ESR meets Brazil**

**EM 3 Thoracic imaging: a Brazilian approach**

**Brazil** will be only the second Latin American country to take part in the ESR meets initiative, and the Brazilian delegation will take this opportunity to demonstrate their expertise in the field of thoracic imaging. Lectures dealing with some particularly prevalent problems in Brazil, including congenital lung disease in children, granulomatous interstitial lung disease, and granulomatous pulmonary infections, will be separated by short interludes that are sure to bring a particularly Latin flavour to the session.

**Presiding:**

Y. Menu; Paris/FR  
 S.C.M. Tramontin; Ponta Grossa/BR

• **Introduction**

S.C.M. Tramontin; Ponta Grossa/BR

- **Granulomatous interstitial lung disease: HRCT path correlation**  
 C.I.S. Silva; Salvador/BR

• **Interlude: Brazilian masterminds**

- **Granulomatous pulmonary infections**  
 A.S. Souza Jr.; São José do Rio Preto/BR

• **Interlude: The world is in love with Brazil**

- **Congenital lung disease in children: state-of-the-art imaging**  
 P.A. Daltro; Rio de Janeiro/BR

- **Panel discussion**

**Sunday, March 6, 10:30–12:00**  
**ESR meets Iran**

**EM 4 Interventional radiology: from scratch to innovation**

**Iran** has seen been sending increasing numbers of participants to the ECR in recent years, and it is hoped that this trend will continue as the country becomes the latest to represent the Middle East region in the 'ESR meets' programme. A session focusing on interventional radiology, with particular emphasis on the liver, will give attendees a clear view of the country's progress in this field, with lectures covering uterine artery embolisation, hepatic transplantation, and radiochemoembolisation of hepatic masses.

**Presiding:**

Y. Menu; Paris/FR  
 A. Sedaghat; Tehran/IR

• **Welcome and Introduction**

A. Sedaghat; Tehran/IR

- **How to start interventional radiology**  
 H. Ghanaati; Tehran/IR

- **Uterine artery embolisation for treatment of symptomatic fibroids**  
 K. Firouznia; Tehran/IR

• **Interlude**

- **Interventional procedures in hepatic transplantation**  
 A. Rasekhi; Shiraz/IR

• **Interlude**

- **Radiochemoembolisation of hepatic metastases**  
 S. Akhlaghpour; Tehran/IR

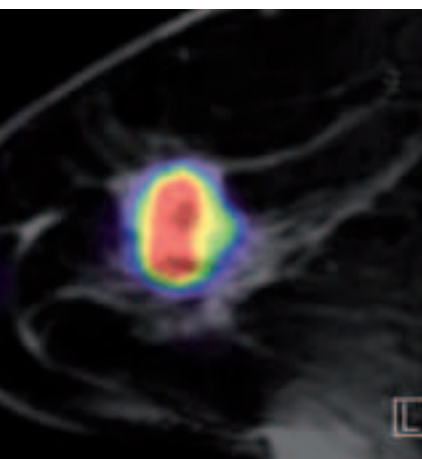
- **Panel discussion**



# The future of breast imaging

By **Mélanie Rouger**

**Saturday, March 5,  
16:00–17:30  
NH 10  
Breast imaging in 2025**



**Figure :**  
Molecular imaging by  
PET-MRI shows highly  
aggressive breast cancer.  
(Provided by K. Pinker)

Will the breast imaging modalities used today still be state-of-the-art in 2025? Will imaging be of any help in detecting breast cancer at all by then? To get a clearer idea, the ESR spoke with Professor Thomas H. Helbich, radiologist at Vienna University Hospital and President of the European Society of Breast Imaging (EUSOBI), who will chair the New Horizons Session on breast imaging at ECR 2011.

## ESR: What will be the key points of your session?

Thomas Helbich: Breast cancer is the leading cause of cancer death among women worldwide. Imaging plays a key role in its early detection and mammography is an accepted screening modality with some limitations such as over-treatment, i.e. too many false positives. To overcome these limitations, research is going on to characterise breast cancer more accurately. Currently, researchers are working on different strategies spanning the spectrum from tomography-based systems to MRI and even molecular imaging. At ECR 2011, one of the panel discussions will focus on these different strategies. The auditorium will learn if in 2025 imaging will still play a major role in breast cancer screening or if a simple blood test will eventually solve the problem. The session will focus on three topics: the role of mammography, of MRI, and of molecular imaging in 2025.

## ESR: What are today's discussions in breast imaging and how will they influence the development of new imaging modalities?

TH: We face several problems with the current imaging techniques. The sensitivity of mammography is reduced in dense breasts. Estimates of mammographic sensitivity in women with extremely dense breasts range from 30 to 63%. The diagnosis of cancer during the interval between screening examinations is increasingly likely in women with dense breast tissue. Interval cancers are associated with a worse prognosis. The combination of breast ultrasound and mammography in women with dense breasts yielded a sensitivity of 77% versus 50% for either modality alone. However, the addition of ultrasound substantially increased false positive findings and the positive predictive value of biopsy. MRI of the breast is superior to ultrasound and mammography in terms of sensitivity but limited by a rather low specificity. The number has improved over the last few years. The limitations of all three modalities underline the need for new imaging techniques that combine high sensitivity, high specificity and reasonable cost.

## ESR: Which breast imaging modalities will be used in 2025?

TH: Mammography, ultrasound and MRI are techniques that focus on morphological imaging. To overcome the limitations of anatomical imaging techniques when used as a solid modality, fusion of processed imaging data with hybrid imaging systems will be developed and introduced. With these new hybrid imaging systems, assessment of functional data on metabolism and investigations on a cellular and sub-cellular level will be possible (e.g. PET-MRI, Optical-PET). This technique will have a huge impact on the diagnosis and the assessment of therapy response.

## ESR: In your opinion will mammography still be an accepted modality for breast cancer imaging in 2025?

TH: I am convinced that we will still use mammography in 2025, most likely in a modified version. Either as hybrid imaging (combining MG and PET) or as an advanced mammography system, which will allow contrast-enhanced tomography or a sort of dedicated breast low-dose CT system.

## ESR: Will the role of MR increase? Will it still be restricted to at-risk women or will it be applied more widely?

TH: Definitely the role of MRI will increase in 2025. Several independent researchers have already demonstrated that MRI of the breast improves detection of invasive cancer, pre-invasive cancer (DCIS) and pre-malignant lesions (atypical ductal hyperplasia). I am convinced that MRI will not be restricted to high-risk women only. MRI may even be used as a general breast cancer screening tool.

**ESR: What about other techniques such elastography, ultrasound and the breast gamma camera?**

TH: Ultrasound of the breast has some potential, however, in comparison with other techniques, its development is rather limited. The huge advantages of ultrasound are low cost and high availability. I see some opportunity for automated whole breast ultrasound systems, which have the potential to eliminate observer variability. Hybrid systems, which convert imaging data from MRI to US, are also promising.

I see some potential with the breast gamma camera, where high-resolution images of the breast will be performed after Tc-Sestamibi application. This is only a temporary situation, as more specific tracers will become available. These new tracers will focus on physiological processes, which are essential in the development of breast cancer such as angiogenesis, hypoxia, apoptosis etc.

**ESR: What are the latest advances in molecular breast imaging? What will be the main developments in this field in 2025?**

TH: The latest advances in molecular breast imaging are very promising. This can be seen in pre-clinical experimental studies as well as clinical studies. Optical imaging with enzyme binding probes, imaging with MRI-PET, and imaging of oncolytic viruses (Fig. 2) either with optical imaging or PET-CT, are just a few of them. However, for molecular imaging, we need the development of various necessary tools and also the development of the drugs that will be used as probes. Nano-particles will play an important role in this process.

**ESR: Molecular imaging also means different schemes of teamwork, i.e. increased cooperation with various physicists and a different allocation of duties. How will this affect the role of the radiologist in the future?**

TH: Molecular imaging will have a profound impact on areas like the provision of personalised healthcare and the stratification of risk. It is a fundamental necessity to be able to visualise a disease at the cellular level. Radiologists are obliged to recognise the importance that they incorporate this new science into their own repertoire of services. Education in molecular imaging must be incorporated into radiological training if the next generation is to seize this opportunity. Currently there is no grounding in molecular biology included in the curricula of radiologists. The next generation of radiologists has to understand the molecular basis of a disease. The European Society of Radiology and the European Congress of Radiology are doing their best to overcome these limitations, but we have to be aware that more and more professionals (non-radiologists) are getting involved in molecular imaging.

**ESR: Will breast imaging be as crucial as it is today in the detection of breast cancer? Or will the advances in medicine, notably molecular medicine, decrease its role?**

TH: Molecular imaging and in particular biomarker imaging will play a crucial role in the detection, characterisation, and treatment response of breast cancer in 2025. Molecular medicine will become a potent opponent as biomarkers from a simple blood test or a small tissue specimen will play a strong role in the detection of breast cancer in 2025 as well.



ESR welcomes you to...

Be inspired. Meet

Enjoy the unique atmosphere

Relax. Share



# New Horizons Sessions

**Friday, March 4, 08:30–10:00**

**NH 3 Quantum leaps in MRI: teslas, pulses, tracers**

- Chairman's introduction  
O. Clément; Paris/FR
- What will be the standard machine and field of the future?  
L. Darrasse; Orsay/FR
- Will new technologies allow a jump in sensitivity?  
J. Hennig; Freiburg/DE
- Will new MR contrast probes compete with PET?  
S. Aime; Turin/IT
- Panel discussion:  
What is ready for our next machine?

**Friday, March 4, 16:00–17:30**

**NH 6 Not just Hounsfield numbers: CT aimed at the fifth dimension?**

- Chairman's introduction  
J.M. Boone; Sacramento, CA/US
- Basic principles of dual energy CT  
W.A. Kalender; Erlangen/DE
- Clinical examples of dual energy CT  
L. Guimaraes; Viseu/PT
- CT contrast perfusion  
K.A. Miles; Brighton/UK
- Panel discussion:  
Will CT surprise us again?

**Saturday, March 5, 16:00–17:30**

**NH 10 Breast imaging in 2025**

- Chairman's introduction  
T.H. Helbich; Vienna/AT
- Is mammography still an accepted modality for breast cancer imaging in 2025?  
M.J. Yaffe; Toronto, ON/CA
- Breast cancer screening with MR imaging and nothing else  
C.K. Kuhl; Aachen/DE
- The evolving role of the radiologist  
P. Brader; Vienna/AT
- Panel discussion:  
Breast imaging 2025: blood test or still imaging?





# Advanced MR shows renewed promise in brain tumour imaging

By Philip Ward

**Friday, March 4,  
16:00–17:30  
SA 6**

**Brain tumour:  
imaging and response**

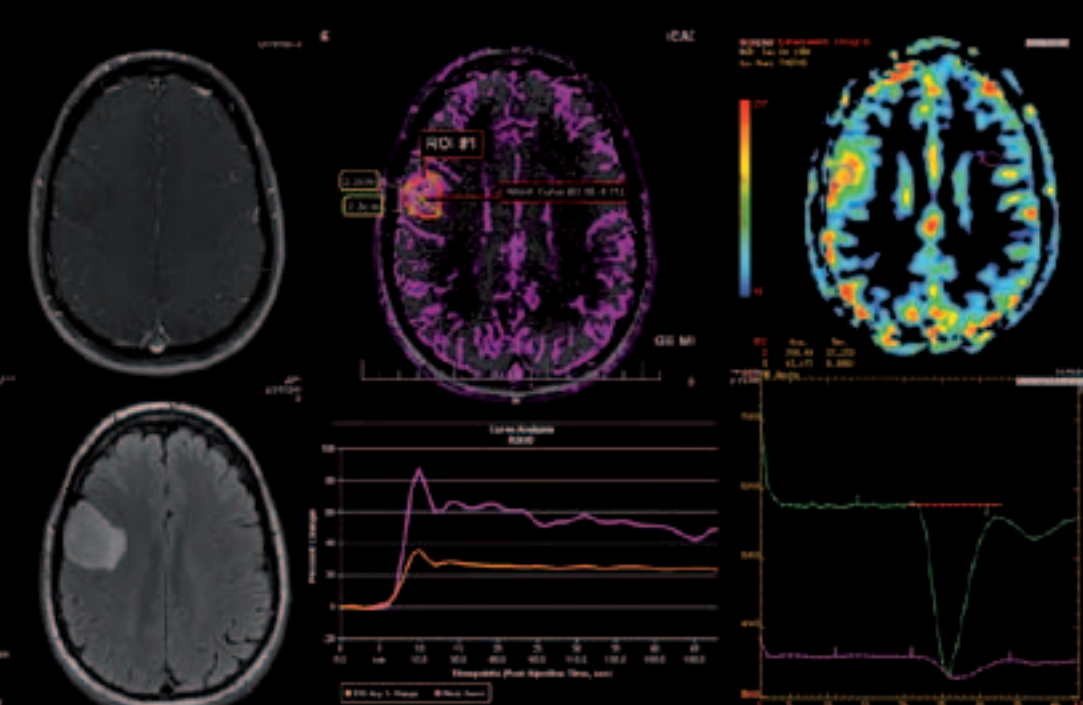
MR imaging is establishing an ever greater role in predicting and monitoring treatment response in patients with brain neoplasms, and is helping radiologists to identify necrosis, pseudo-progression and recurrent tumour.

Functional techniques like MR spectroscopy (MRS), dynamic contrast-enhanced (DCE) MRI, and dynamic susceptibility contrast-enhanced (DSC) MRI are becoming essential to differentiate between therapy-induced changes from tumour recurrence, according to Prof. Dr. Marco Essig, from the department of radiology at the German Cancer Research Centre, Heidelberg, Germany. The proper use of these techniques and their interpretation will form the bulk of his presentation at a state-of-the-art symposium at ECR 2011. Other emerging tools, including high and ultra-high field and the use of non-proton MRI (e.g., <sup>23</sup>Na MRI), will also be described.

Radiation necrosis and pseudo-progression versus recurrent tumour is of great importance for radiologists and neuroradiologists who deal with post-treatment patients. “To differentiate tumour-related from treatment-related effects is one of the major challenges in radiology,” Essig explained. “All blood-brain barrier changes may indicate treatment-related effects, and the same is true for pseudo-enlargements and oedema.”

It is important to understand the different methodologies that can be used to obtain perfusion permeability, diffusion and spectroscopy in brain tumours, and to appreciate the advantages and disadvantages of each method, stated Prof. Meng Law, director of neuroradiology at the Keck School of Medicine in Los Angeles, U.S.

“In the clinical setting, qualitative, semi-quantitative and quantitative approaches, such as review of colour-coded maps to region-of-interest analysis and analysis of signal intensity curves, are being applied in practice,” said Law, who will also speak at the ECR 2011 session. “There are a number of pitfalls with all of these approaches, like the effect of leakage on the appearance of colour-coded maps from DSC MRI perfusion imaging and what correction and normalisation methods can be applied. This has important clinical implications as even qualitative perfusion maps are altered significantly by the leakiness of a lesion.”



**Figure:**  
Glioma demonstrates increased permeability on DCE MRI and increased relative cerebral blood volume on DSC MRI, despite lack of contrast enhancement. This underlines the importance of biological imaging in neuro-oncology.  
(Provided by Prof. M. Law)

The role of advanced imaging and the effects of anti-angiogenic therapies on tumour microvasculature/microenvironment are also notable, and changes in diffusion, perfusion and MRS can occur, he explained. Pseudo-phenomenon has made conventional imaging with gadolinium contrast agents almost obsolete, necessitating mechanistic techniques to differentiate entities such as pseudo-progression, which is seen more commonly as a result of therapy with temozolomide and radiation for high-grade gliomas, as well as pseudo-response and pseudo-pseudoprogression.

To combine and apply these different techniques in a multi-parametric, algorithmic fashion in the clinical setting helps to increase diagnostic specificity and confidence, he added.

Recent studies have produced good results using diffusion maps, as well as perfusion maps, and by doing voxel by voxel measurements to visualise local/focal interval changes in the tumour appearance during treatment, according to Prof. Pia Maly Sundgren, head of diagnostic radiology at Lund University, Sweden. MR spectroscopy may be helpful in differentiating between recurrent tumour and radiation-induced injury.

“The drawback is that it still requires a lot of off-line post-processing of the image, co-registration of images, etc., and data analysis, which sometimes can be time-consuming,” she said. “It needs good post-processing techniques and good physics back-up to evaluate the data. This means that the results can usually not be given immediately to the referring clinician.”

Radiologists must remember that they are often dealing with a mixture of tumour and areas of radiation injury/necrosis. The timing (i.e., during or after completed radiation treatment) as well as the radiation dose and additional chemotherapy might influence the results, for example pseudo-progression during the early stage of treatment in combination with some chemotherapy agents. Potential problems can in part be avoided by careful analysis, awareness of timing and sound treatment protocols, and good collaboration with the clinicians also helps, said Sundgren.

She detects a trend towards more individualised treatment of tumours, and thinks that monitoring will also become more individualised.



# State of the Art Symposia

**Thursday, March 3, 16:00–17:30**

**SA 2 Ovarian cancer:  
update and what's next**

---

- Chairman's introduction  
R. Forstner; Salzburg/AT
- Ovarian cancer:  
update and role of radiology  
J.A. Spencer; Leeds/UK
- Imaging of adnexal masses:  
is it feasible to diagnose ovarian cancer?  
I. Thomassin-Naggara; Paris/FR
- Staging ovarian cancer:  
what technique is the best?  
E. Sala; Cambridge/UK
- Panel discussion:  
The illustrated role of the radiologist in  
multidisciplinary consensus conferences

**Friday, March 4, 16:00–17:30**

**SA 6 Brain tumour:  
imaging and response**

---

- Chairman's introduction  
M. Stajgis; Poznan/PL
- Advanced brain tumour imaging:  
complete imaging protocol  
M. Law; Los Angeles, CA/US
- Monitoring and prediction of  
treatment response  
P.C. Maly Sundgren; Lund/SE
- Radiation necrosis and  
pseudo-progression vs recurrent tumour  
M. Essig; Heidelberg/DE
- Panel discussion:  
Try to understand the clinical question  
and you will know which imaging is  
appropriate

**Friday, March 4, 08:30–10:00**

**SA 3 The 3 P's of CT colonography:  
polyps, protocols and politics**

---

- Chairman's introduction  
S. Halligan; London/UK
- CT colonography in 2011:  
how far has it come  
P. Lefere; Roeselare/BE
- Current status of reimbursement  
A. Laghi; Latina/IT
- Quality, training and accreditation  
D. Burling; London/UK
- CAD: friend or foe?  
S. Halligan; London/UK
- Panel discussion:  
In 2011, should CTC now be the primary  
method of colorectal investigation in my  
hospital?





# New interventional approaches widen horizons for liver cancer patients

By Frances Rylands-Monk

**Monday, March 7,  
16:00–17:30**

**SF 18a**

**Transarterial treatment  
of liver tumours:  
major advances**

The incidence of hepatocellular carcinoma (HCC) has increased steadily, particularly due to the spread of chronic hepatitis C virus (HCV). Surgery and liver transplantation are being used widely, but emerging interventional techniques can offer improved palliative care and potentially life-saving cures. Further clinical trial results must still be established.

Rapid advances are occurring in the trans-arterial treatment of hepatic tumours, and a special focus session on this hot topic looks certain to generate considerable interest at ECR 2011.

According to the Milan Criteria, liver transplantation may be considered if a tumour is less than 5 cm in diameter, or if there are two or three lesions each of less than 3 cm in size. If the tumour is confined to one lobe and the residual lobe has good function, then resection becomes an option. Also, radiofrequency (RF) ablation can be considered if the tumour is no larger than 5 cm in diameter.

For around 80% of liver cancer patients, no conventional therapy is viable once the disease has been diagnosed, which means that the patients become candidates for chemotherapy. However, because the liver is highly chemo-resistant, the traditional method of classical systemic infusion chemotherapy is not very effective. This means that chemotherapeutic agents such as doxorubicin must be infused locally in high concentration into the artery supplying the tumour. After local application using a catheter, arterial flow to the tumour must be blocked by embolisation.

This method, trans-arterial chemo-embolisation (TACE), has shown promise in randomised trials. Furthermore, drug-eluting beads allow small particles to be loaded with the chemotherapeutic agent to transport doxorubicin directly into the tumour, blocking arterial flow at the same time.

Results published from a European multicentric randomised study (Johannes Lammer et al, Cardiovasc. Intervent. Radiol. 2009) show improved outcome compared to conventional TACE. Drug-eluting beads used with doxorubicin are now attracting attention as a palliative life-prolonging treatment. Compared with conventional TACE – which may damage the liver, reduce blood count and cause nausea and hair loss – drug-eluting beads have significantly fewer adverse side effects because the therapeutic agent remains in the tumour and does not circulate in the patient's body.

**Figure A:**

CT of hepatocellular carcinoma (HCC) before trans-arterial chemo-embolisation (TACE).

**Figure B:**

MR of HCC before TACE.

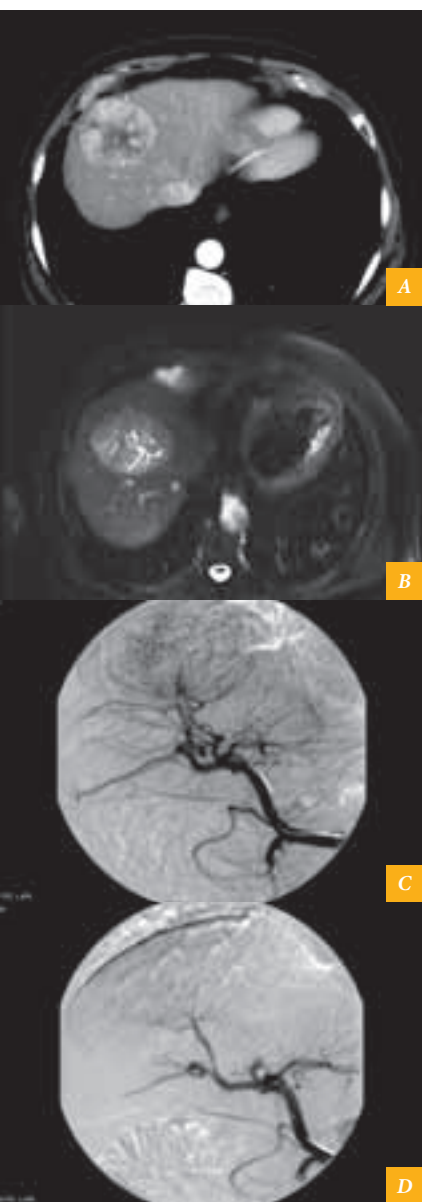
**Figure C:**

Angiogram of HCC before TACE.

**Figure D:**

Angiogram after TACE with drug-eluting beads.

(All images provided by Prof. J. Lammer)



In terms of therapy options, this is likely to be news to many radiologists. It's important for them to know that for patients with even advanced tumours there is now a viable treatment," said Prof. Johannes Lammer, director of cardiovascular and interventional radiology at Vienna's Medical University, who will moderate the session in March.

Previous options would have included conventional TACE (intra-arterial drug infusion followed by embolisation) and bland embolisation without any chemotherapeutic agent. Another study published last year in the Cardiovascular Interventional Radiology journal by Dr. Katarina Malagari has demonstrated that chemo-embolisation using drug-eluting beads compared to bland embolisation was significantly better in terms of subjective patient response and time to progression.

Also under evaluation in large European multicentre studies is another therapeutic option that involves radio-embolisation using beta-emitting Yttrium particles injected into the tumour-feeding artery. This highly effective local radiation can kill the tumour cells without damaging the liver. Additionally, therapies combining TACE with drug-eluting beads and RF ablation are being studied in a multicentre randomised trial now in its second year. Its results may be available by ECR 2011.

TACE can first reduce the size of the tumour, so that those patients who aren't candidates for surgery, or whose tumours are a little too large for ablation, initially can still profit from curative ablation rather than palliative treatment," Lammer said.

Where possible, surgery is still the best option in terms of patient survival, and there is less chance of liver cancer returning, but if research over the next couple of years proves that a combined approach is effective, its routine use in the clinical setting will increase, he added.

In another large randomised international study, at present in its early stages, a combined approach to palliative treatment using systemic drug therapy with sorafenib in combination with TACE using drug-eluting beads is under evaluation.

Radiologists who want to learn more about which patients should be a candidate for surgery or RF ablation and find out what can be achieved with TACE should attend the ECR 2011 session. They will also hear about the most recent techniques using drug-eluting beads, radio-embolisation and the latest combined approaches.



# Special Focus Sessions

**Thursday, March 3, 16:00–17:30**

**SF 2 Child abuse: right images, right behaviour, right words**

- Chairman's introduction  
M.I. Argyropoulou; Ioannina/GR
- How to image and detect patterns of skeletal injury indicating child abuse  
P.K. Kleinman; Boston, MA/US
- Imaging strategies to fully determine intracranial injury resulting from child abuse  
C. Adamsbaum; Paris/FR
- What is the information required by any court and how the radiological reports should be phrased  
S. Chapman; Birmingham/UK
- Panel discussion:  
The radiologist at the eye of the storm

**Friday, March 4, 08:30–10:00**

**SF 3a The BI-RADS 3 controversy**

- Chairman's introduction  
M.G. Wallis; Cambridge/UK
- Defining lesions to follow-up  
P. Skaane; Oslo/NO
- Decreasing the number of BI-RADS 3 in clinical settings  
L.J. Pina Insausti; Pamplona/ES
- Management of BI-RADS 3 lesions  
F. Sardanelli; Milan/IT
- Panel discussion:  
BI-RADS 3: biopsy or watch?

**Friday, March 4, 08:30–10:00**

**SF 3b The ABC of EVAR**

- Chairman's introduction  
M. Szczerbo-Trojanowska; Lublin/PL
- Endovascular treatment of thoracic aortic aneurysms  
J.-P. Beregi; Lille/FR
- Endovascular treatment of abdominal aortic aneurysms  
R. Morgan; London/UK
- The role of imaging in follow-up  
K.A. Hausegger; Klagenfurt/AT
- Panel discussion:  
The key role of imaging in endovascular aortic aneurysm repair

**Friday, March 4, 08:30–10:00**

**SF 3c Tumour response to treatment: RECIST, desist or insist?**

- Chairman's introduction  
R.H. Reznick; London/UK
- Monitoring response to treatment in patients with cancer: why and how. The Oncologist's view  
P. Johnson; Southampton/UK
- Principles in the use of conventional/anatomic imaging for response assessment  
L. Schwartz; New York, NY/US
- PET in monitoring response  
W. Weber; Freiburg/DE
- Panel discussion:  
Why does the radiologist need to understand the importance of monitoring response and how it is done?

**Friday, March 4, 08:30–10:00**

**SF 3d Head and neck oncology: the three musketeers (CT, MR, PET)**

- Chairman's introduction  
A. Borges; Lisbon/PT
- State-of-the-art CT/MR/PET as baseline modalities  
S. Bisdas; Tübingen/DE
- State-of-the-art CT/MR/PET in the treated neck  
F.A. Pameijer; Utrecht/NL
- New techniques and protocols: perfusion, diffusion, spectroscopy and new PET tracers  
V. Vandecaveye; Leuven/BE
- Panel discussion:  
The three musketeers were actually FOUR

# Special Focus Sessions

**Friday, March 4, 16:00–17:30**

**SF 6 Dynamic MR imaging of the pelvic floor: easy and useful**

- Chairman's introduction  
D. Weishaupt; Zurich/CH
- How I do it  
C.S. Reiner; Zurich/CH
- Indications and spectrum of pathological findings  
F. Maccioni; Rome/IT
- Dynamic imaging of the pelvic floor: MR imaging or conventional technique?  
S. Halligan; London/UK
- Panel discussion:  
Does dynamic pelvic MR imaging replace conventional defecography?

**Saturday, March 5, 08:30–10:00**

**SF 7 My 'most beautiful' mistakes**

- Chairman's introduction  
M. Zins; Paris/FR
- Abdomen  
A.H. Freeman; Cambridge/UK
- GU  
L.E. Derchi; Genoa/IT
- Chest  
C. Schaefer-Prokop; Amersfoort/NL
- Panel discussion:  
What have we learned from our mistakes?

**Sunday, March 6, 08:30–10:00**

**SF 11 Can we predict premature ageing?**

- Chairman's introduction  
G. Guglielmi; Foggia/IT
- Brain ageing/dementia  
F. Barkhof; Amsterdam/NL
- Bone and joint ageing  
A. Cotten; Lille/FR
- Cardiovascular ageing  
T. Saam; Munich/DE
- Panel discussion:  
What specific knowledge do you need to be able to interpret and understand the radiological scenarios in geriatric patients?

**Sunday, March 6, 14:00–15:30**

**SF 13 Quantifying liver fat, inflammation and fibrosis: routine or research?**

- Chairman's introduction  
C.B. Sirlin; San Diego, CA/US
- Quantification of liver fat  
S.B. Reeder; Madison, WI/US
- Quantification of liver inflammation  
Jeremy F.L. Cobbold; London/UK
- Quantification of liver fibrosis  
B. Van Beers; Clichy/FR
- Summary of presentations  
C.B. Sirlin; San Diego, CA/US
- Panel discussion:  
Routine or research?

**Sunday, March 6, 16:00–17:30**

**SF 14 Thoracic emergencies: triage with MDCT**

- Chairman's introduction  
D.R. Kool; Nijmegen/NL
- MDCT in acute chest pain  
F. Cademartiri; Parma/IT
- MDCT in chest trauma: indications, technique and interpretation  
H. Mirka; Plzen/CZ
- Radiation in emergency thoracic CT: can it be reduced?  
S. Leschka; St. Gallen/CH
- Panel discussion:  
Increasing use of MDCT in emergency radiology of the chest: is it appropriate? Can we stop it? Do we want to?





# Special Focus Sessions

**Monday, March 7, 08:30–10:00**

## **SF 15a Molecular imaging made easy**

- Chairman's introduction  
F.M.A. Kiessling; Aachen/DE
- Probes and targets in optical imaging  
C.W.G.M. Löwik; Leiden/NL
- Ultrasound providing molecular imaging  
M. Palmowski; Aachen/DE
- MR in molecular imaging  
E.A. Schellenberger; Berlin/DE
- Panel discussion:  
Which role can radiologists easily play in molecular imaging?  
A.K. Dixon; Cambridge/UK

**Monday, March 7, 08:30–10:00**

## **SF 15b CT of small airways: elementary images for disease classification**

- Chairman's introduction  
J.A. Verschakelen; Leuven/BE
- Basic signs in small airways disease  
D.M. Hansell; London/UK
- From pattern to diagnosis  
C. Beigelman; Paris/FR
- Beyond morphology  
H.-U. Kauczor; Heidelberg/DE
- Panel discussion:  
Signs of small airways disease can be seen on CT but when and why do they really matter?

**Monday, March 7, 16:00–17:30**

## **SF 18a Transarterial treatment of liver tumours: major advances**

- Chairman's introduction  
J. Lammer; Vienna/AT
- Advances in chemoembolisation of liver metastases  
M.A. Funovics; Vienna/AT
- Embolisation of HCC with drug eluting beads  
K. Malagari; Athens/GR
- Selective internal radiotherapy  
J.I. Bilbao; Pamplona/ES
- Combined therapies before and after ablation  
R. Lencioni; Pisa/IT
- Panel discussion:  
Which treatment option is the best for the various stages of disease?

**Monday, March 7, 16:00–17:30**

## **SF 18b Brain perfusion made easy: CT/MR?**

- Chairman's introduction  
E.T. Tali; Ankara/TR
- Techniques for CT and MR, post-processing, radiation  
R.A. Meuli; Lausanne/CH
- Brain tumours  
A. Jackson; Manchester/UK
- Stroke and vascular diseases  
J. Vymazal; Prague/CZ
- Panel discussion:  
Guidelines, recommendations, hints and tips to get more from perfusion imaging in CNS pathologies



# Teleradiology: For better or for worse

By **Mélisande Rouger**

**Monday, March 7,  
08:30–10:00**

**PC 15**

**Teleradiology:  
for better or for worse**



**Figure:**

Teleradiology is used every day at  
Barcelona University Hospital.  
(Provided by Prof. L. Donoso)

An asset with potential pitfalls, a tool one must use carefully, or a facility that could harm patients if not monitored properly; experts have long warned of the drawbacks associated with teleradiology. Yet it helps an increasing number of organisations to widen their care portfolio. The time has come to face the reality more fairly, by weighing the advantages and disadvantages of teleradiology against each other. A panel of experts will do just that at ECR 2011, during a dedicated professional challenges session.

Teleradiology is a tool one can use to do either the worst or the best radiology, explained Luís Donoso, Professor of Radiology at University Hospital Barcelona. “We know that teleradiology can be used in the worst manner, for instance with ghosting, or just as a commodity. But it is also possible to get better services in a radiology department thanks to teleradiology, and I would like to stress this now,” said Donoso, who will chair the session.

Whether it is to provide qualified staff to remote hospitals or expert opinions to smaller healthcare organisations, teleradiology is now being routinely used all around the world.

It is also a precious asset in emergency medicine, as will be emphasised by Dr. Hans Billing, Medical Director of the Telemedicine Clinic in Barcelona, by presenting specific cases and giving practical examples of teleradiology settings in different practices.

One of the difficulties associated with teleradiology lies in obtaining good medical records such as information on the patient and prior examinations, as well as good contact with the clinician to work in protocols. Radiologists and medical administrators alike must know which technology supports and optimises workflow in a telemedicine environment.

Doctor Jan Schillebeeckx from Bonheiden will show the specific, predominant applications that enable teleradiologists to do good clinical work, as well as introducing the new concept of collaborative networks of radiologists, in which hospitals can contract teleradiologists directly. Instead of contracting a company offering teleradiology services, hospitals may contract an infrastructure provider, thanks to whom they may choose which teleradiologist is best suited to their purpose.

“It is going a little far away from the classical concept of teleradiology, but it could improve the workflow and be interesting for the user. Actually, we would like to introduce this model at our practice,” enthused Donoso.

There are good reasons to look at the future optimistically, he believes. Things are going well with the European Commission, after a few misunderstandings during the last ECR about the status of teleradiology.

“They thought that we were moving patient information from one site to another and that is only covered by the information technologies policy at the European level, not the medical one. After many discussions, they are ready to accept that teleradiology is a medical act, and I think that we will reach a good agreement, we are moving in the right direction,” Donoso said.

# Technology





# Professional Challenges Sessions

**Thursday, March 3, 16:00–17:30**  
**Joint Session of the ESR and the EANM**  
**(European Association of Nuclear Medicine):**

**PC 2 Radiology and nuclear medicine: really a joint venture**

- 
- Chairmen's introduction  
P. Bourguet; Rennes/FR  
É. Breatnach; Dublin/IE
  - Evaluation of tumour response to therapy: the role of radiology  
M. O'Connell; Dublin/IE
  - Evaluation of tumour response to therapy: the role of nuclear medicine  
A. Chiti; Milan/IT
  - Alzheimer's disease: the role of radiology  
J. Alvarez-Linera; Madrid/ES
  - Alzheimer's disease: the role of nuclear medicine  
K. Tatsch; Karlsruhe/DE
  - Panel discussion:  
The advantages of working together for nuclear medicine and radiology

**Saturday, March 5, 08:30–10:00**

**PC 7 Professional issues in interventional radiology: education, training and standards**

- 
- Chairmen's introduction  
J.I. Bilbao; Pamplona/ES  
J.H. Peregrin; Prague/CZ
  - Education and training in IR  
A.-M. Belli; London/UK
  - Turf battles facing IR  
J.A. Reekers; Amsterdam/NL
  - Future directions in IR  
M.J. Lee; Dublin/IE
  - Panel discussion:  
What does an interventional radiologist need to know?

**Saturday, March 5, 16:00–17:30**  
**Joint Session of the ESR and the EORTC**  
**(European Organisation for Research and Treatment of Cancer):**

**PC 10 Imaging as the number one tool for oncology trials**

- 
- Chairmen's introduction  
F. Meunier; Brussels/BE  
P.M. Parizel; Antwerp/BE
  - The EORTC Imaging Group: vision and strategy on cancer imaging  
S. Stroobants; Antwerp/BE
  - Can we assess cell density of tumours with imaging techniques?  
N.N.
  - Which imaging techniques are useful to evaluate tumour angiogenesis?  
D. Sahani; Boston, MA/US
  - Challenges for morphologic imaging in oncology trials: reproducibility and reading  
F.E. Lecouvet; Brussels/BE
  - Panel discussion  
Can we use imaging parameters as biomarkers in multicentre trials and predict tumour response?

**Monday, March 7, 08:30–10:00**

**PC 15 Teleradiology: for better or for worse**

- 
- Chairman's introduction  
L. Donoso; Barcelona/ES
  - Are we safeguarding patients' rights?  
D. Caramella; Pisa/IT
  - Excellence in teleradiology: key issues in workflow management  
J. Schillebeeckx; Bonheiden/BE
  - Dedicated solutions for specific clinical scenarios  
H. Billing; Barcelona/ES
  - Panel discussion:  
To what extent has teleradiology demonstrated it can improve radiological services?



# The basics of musculoskeletal MRI

By **Mélanie Rouger**

**Thursday, March 3 to  
Monday, March 7  
CC 16  
KISS (Keep It Simple  
and Straightforward):  
Musculoskeletal MRI**

Ever since its introduction to clinical routine, MRI has become a standard technique for the imaging of many diseases. But as the technology has matured, it has become a vast and increasingly complex field, making it sometimes arduous for non-specialists to distinguish which protocols are best employed for a particular anatomical area. Musculoskeletal (MSK) MRI in particular has seen many developments, which require guidance to be properly used.

“When 15 years ago at ECR you could adequately cover MRI of the knee in an hour-and-a-half session, now you can buy a 500-page textbook on the topic,” explained Dr. Mark Davies, consultant radiologist at Royal Orthopaedic Hospital, Birmingham and a former president of the European Society of Musculoskeletal Radiology.

With input from the musculoskeletal subcommittee he has planned a categorical course for ECR 2011 entitled KISS (Keep It Simple and Straightforward): Musculoskeletal MRI, a course dedicated to general radiologists.

“Non-specialist radiologists do not have the time to learn about every tiny anatomical detail or how to interpret complex post-operative cases, but they should be able to report on common pathologies seen on everyday MSK MRI,” said Davies.

Most of the sessions on the categorical course will follow a similar format, with three expert lecturers covering an anatomical area. The first lecturer will provide basic instructions on how best to undertake an MRI scan of that part of the body, giving tips on patient positioning, optimal scan parameters and coil selection.

“These days MRI scanners come with a bewildering number of protocols pre-loaded onto the operator’s console. It is important to know which is best in terms of diagnostic capability as well as time efficiency in answering the referring clinician’s specific query,” Davies explained.

**Figure A:**

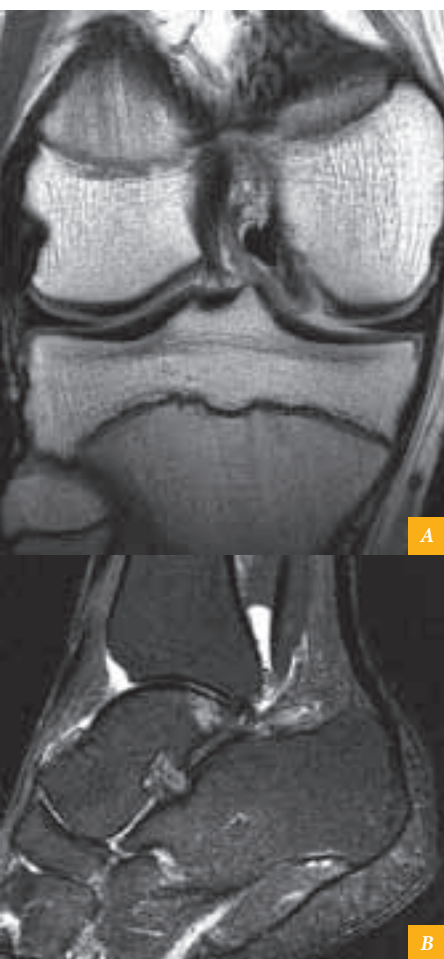
Coronal intermediate weighted MR image of the knee. There is osteochondritis dissecans of the inner aspect of the medial femoral condyle with synovial fluid intruding under a chondral flap.

**Figure B:**

Sagittal intermediate weighted fat suppressed image of the ankle and hindfoot. There is an os trigonum which is a ‘normal variant’. On this occasion it is associated with oedema in the posterior talus and is likely to be contributing to posterior impingement.

(Both images provided by S. James)





The second lecturer will then deal with the pertinent anatomy of the area and present the range of diagnostic pitfalls.

“There are many problems even with routine MSK MRI where it is all too easy for the unwary radiologist to overcall incidental findings as clinically significant, and if one is not careful this can initiate further unnecessary investigations or even surgery,” Davies said.

The third lecturer will teach participants how to identify and report common abnormal findings. Too often, clinicians have problems interpreting reports, with the important positive findings difficult to pick out from a mass of clinically irrelevant material.

“There is a tendency for radiologists who are not so experienced with MSK MRI to report everything they see. As a result you can end up with an enormously long report, which might not help the clinician as much as it should because the emphasis may not be where it is most needed,” stated Davies.

It is also important that the terminology employed in an MRI scan report is both understood by the clinician and means the same to him/her as it does to the reporting radiologist. Otherwise this can be a further opportunity for confusion. Indeed it could be argued that each unit should try to introduce structured reports even if they are provided by different radiologists working within the same department. Such an approach may have wider implications in the future with the outsourcing of MRI scan reporting via teleradiology.

Finally, there will be a session on the course detailing what the general radiologist should know about MSK MRI at 3T. “This technology is no longer just the realm of researchers in their ivory towers but is being increasingly introduced into everyday practice,” Davies pointed out.

# Categorical Courses

## KISS (Keep It Simple and Straightforward): Musculoskeletal MRI

### Thursday, March 3, 16:00–17:30 CC 216 The hand and wrist

Moderator: R. Schmitt; Bad Neustadt a.d. Saale/DE

- A. How I do it  
J.-L. Drapé; Paris/FR
- B. Normal variants and pitfalls  
J. Hodler; Zurich/CH
- C. Identifying and reporting abnormal findings  
L. Cerezal; Santander/ES

### Friday, March 4, 08:30–10:00 CC 316 The shoulder

Moderator: A. Oktay; Izmir/TR

- A. How I do it  
J. Kramer; Linz/AT
- B. Normal variants and pitfalls  
M. Reijnierse; Leiden/NL
- C. Identifying and reporting abnormal findings  
S. Waldt; Munich/DE

### Friday, March 4, 16:00–17:30 CC 616 The knee

Moderator: N. Mamisch-Saupe; Zurich/CH

- A. How I do it  
A. Barile; L'Aquila/IT
- B. Normal variants and pitfalls  
S.J. Eustace; Dublin/IE
- C. Identifying and reporting abnormal findings  
M. Maas; Amsterdam/NL

### Saturday, March 5, 08:30–10:00 CC 716 The ankle and foot

Moderator: M. Shahabpour; Brussels/BE

- A. How I do it  
M. Zanetti; Zurich/CH
- B. Normal variants and pitfalls  
A.H. Karantanas; Iraklion/GR
- C. Identifying and reporting abnormal findings  
A. Cotten; Lille/FR

### Saturday, March 5, 16:00–17:30 CC 1016 The basics of MSK MRI at 3T

Moderator: A. Baur-Melnyk; Munich/DE

- A. Optimising protocols  
C. Glaser; Munich/DE
- B. Pitfalls, strengths and weaknesses  
T.C. Mamisch; Berne/CH
- C. New techniques and applications  
S. Trattnig; Vienna/AT

### Sunday, March 6, 14:00–15:30 CC 1316 The lumbar spine

Moderator: M. Epermane; Riga/LV

- A. How I do it  
P.J. Richards; Stoke-on-Trent/UK
- B. Normal variants and pitfalls  
B. Tins; Oswestry/UK
- C. Identifying and reporting abnormal findings  
A. Stäbler; Munich/DE

### Sunday, March 6, 16:00–17:30 CC 1416 Soft tissue extremity masses

Moderator: A.R. Mester; Budapest/HU

- A. How I do it  
J.C. Vilanova; Girona/ES
- B. Normal variants and pitfalls  
F.M.H.M. Vanhoenacker; Antwerp/BE
- C. Identifying and reporting abnormal findings  
J.L.M.A. Gielen; Edegem/BE

### Monday, March 7, 08:30–10:00 CC 1516 The hip

Moderator: C.W.A. Pfirrmann; Zurich/CH

- A. How I do it  
A. Kassarian; Majadahonda/ES
- B. Normal variants and pitfalls  
U. Studler; Basle/CH
- C. Identifying and reporting abnormal findings  
P.M. Cunningham; Navan/IE

# Categorical Courses

## Radiology in Abdominal Emergencies

**Saturday, March 5, 16:00–17:30**

**CC 1017 Missing perfusion:  
abdominal ischaemic disease**

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Moderator: O. Chan; London/UK

A. Mesenteric angiography: diagnostic and therapeutic approach  
J. Lammer; Vienna/AT

B. The black bowel  
P. Rogalla; Toronto, ON/CA

C. Clinical management:  
what you need to know  
D.E. Malone; Dublin/IE

**Sunday, March 6, 08:30–10:00**

**CC 1117 The hole in the guts**

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Moderator: M. Lewin; Paris/FR

A. Wasting time with plain radiography?  
M. Laniado; Dresden/DE

B. Defining the role of US  
J.B.C.M. Puylaert; The Hague/NL

C. In search of the hole: CT  
A. Laghi; Latina/IT

**Sunday, March 6, 16:00–17:30**

**CC 1417 Inflammation and oedema**

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Moderator: N. Elmas; Izmir/TR

A. The three musketeers: appendicitis, diverticulitis, colitis  
J. Stoker; Amsterdam/NL

B. Liver and biliary tree  
J.A. Soto; Boston, MA/US

C. Pancreatitis: common and critical  
P.R. Ros; Cleveland, OH/US

**Monday, March 7, 08:30–10:00**

**CC 1517 The acute abdomen**

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Moderator: J.-M. Bruel; Montpellier/FR

A. Abdominal hernias  
G. Brancatelli; Palermo/IT

B. The wrong twist:  
mesenteric and omental torsion  
S. Efremidis; Ioannina/GR

C. Acute stages in neoplastic diseases  
J.A. Guthrie; Leeds/UK



# Categorical Courses

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

**Saturday, March 5, 08:30–10:00**  
**CC 718 Dyspnea**



Moderator: M. Rémy-Jardin; Lille/FR

A. Clinical considerations

J. Neuwirth; Prague/CZ

B. Imaging techniques and typical findings

H. Prosch; Vienna/AT

C. Interactive case discussion

J. Andreu; Barcelona/ES

**Sunday, March 6, 14:00–15:30**  
**CC 1318 Fever of unknown origin**



Moderator: P.A. Grenier; Paris/FR

A. Clinical considerations

C. Peter Heussel; Heidelberg/DE

B. Imaging techniques and typical findings

G.R. Ferretti; Grenoble/FR

C. Interactive case discussion

W. Curati-Alasonatti; Stanmore/UK

**Saturday, March 5, 16:00–17:30**  
**CC 1018 Palpable abdominal mass**



Moderator: F. Caseiro-Alves; Coimbra/PT

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 6, 16:00–17:30**  
**CC 1418 Focal neurological disorders**



Moderator: M. Sasiadek; Wroclaw/PL

A. Clinical considerations

D. Balériaux; Brussels/BE

B. Imaging techniques and typical findings

P. Barsi; Budapest/HU

C. Interactive case discussion

G. Krumina; Riga/LV

**Sunday, March 6, 08:30–10:00**  
**CC 1118 Surprise in the liver**



Moderator: C. Bartolozzi; Pisa/IT

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

**Monday, March 7, 08:30–10:00**  
**CC 1518 Female pelvic pain**



Moderator: A.J.M. Maubon; Limoges/FR

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







# “We are forgetting the simple things in life!”

By **Mélanie Rouger**

**Thursday, March 3 to  
Monday, March 7  
MC 21**

**The Beauty of  
Basic Knowledge:  
Interpretation of the  
Chest Radiograph**

The numerous possibilities offered by CT, MRI and refined hybrid techniques such as PET/SCAN can only fascinate radiologists, especially the youngest, who are eager to contribute to advancing these modalities.

But as they dedicate their efforts to developing new technologies, radiologists should not forget the basics of their science. Their decreasing interest in basic imaging could soon translate into a generation of radiologists trained to decipher complex MR sequences but unable to read the most simple x-ray film, experts warn.

A new mini course, appropriately named ‘The beauty of basic knowledge’, will offer ECR participants the opportunity to review basic chest imaging principles in common clinical situations.

Today, a significant number of chest examinations are still performed with conventional radiography. Only a decade ago, about 40% of chest images were plain x-ray films. Knowing how to read and interpret these images can help save both time and money, by avoiding further unnecessary examinations.

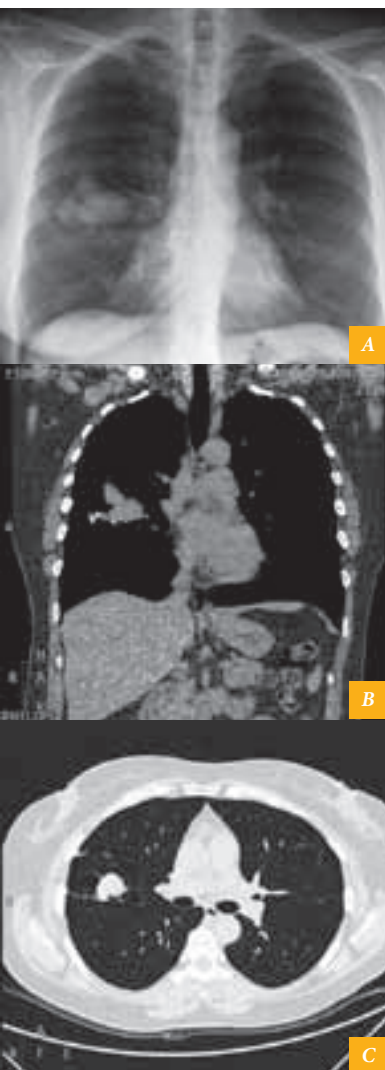
“A chest x-ray film contains a lot of information with which one might either be able to make an accurate diagnosis without further examination or choose the appropriate examination when needed,” said José Cáceres, Professor of Radiology at Barcelona University Hospital, who will coordinate the sessions.

This fact is well known to all, but experts notice errors that should not occur if x-ray images are being read correctly.

Cáceres remembers a case in which a patient seemed to present with a pulmonary nodule after being imaged with x-ray. The medical team carried out a CT examination, after which MRI, biopsy and surgery were scheduled. Finally, they took another look at the chest radiograph and CT, and noticed that this wasn’t a pulmonary nodule but a mucous impaction.

## **Figures:**

Forty-one year old woman diagnosed of pulmonary nodule. Chest radiograph (A) shows an opacity in the middle lung field suggestive of mucous impaction. Coronal CT reconstruction (B) confirms the morphology of the impaction. Axial CT (C) shows local emphysema around the mucous-filled bronchi. Final diagnosis: congenital bronchial atresia. (Provided by Prof. J. Cáceres)



“If they had looked carefully at the x-ray film in the first place, this would never have happened. They could have avoided psychological stress for the patient, who was mentally preparing for surgery,” Cáceres said.

This example could become a common scenario if radiologists are not reminded of the value of basic knowledge.

“We are forgetting the simple things in life! We all know that young radiologists are mainly attracted by new techniques. But you obviously need basic knowledge to practice radiology,” said Cáceres, who has taught for over 40 years.

Unfortunately, the various European training curricula do not stress this point as much as they should, the chest specialist believes. Consequently, he and the ECR programme planning committee decided to tackle the issue next year.

The daily courses will explain how to extract meaningful information from chest x-ray films along four main axes: air-space disease, lobar collapse, rounded lesions and decreased opacity of the lungs. If successful, the series could become a regular feature at the ECR, focusing on other body regions in the future.

This is not the first attempt ECR organisers have made to stress the importance of basic knowledge. Two years ago, ECR 2008 offered a course on thoracic radiography, which received a very good response from the audience, with over 600 participants.

“Throughout my experience at the ECR, I have seen young radiologists take a lot of interest in the basic things,” said Cáceres, who will also present an Honorary Lecture on chest imaging at the congress.

Probably because this is one of the places where they are taught best.

# Mini Courses

## Organs from A to Z: Pancreas

**Saturday, March 5, 08:30–10:00**

### **MC 719 Imaging inflammation and function**

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Moderator: O. Akhan; Ankara/TR

A. Acute pancreatitis

P.R. Ros; Cleveland, OH/US

B. Chronic pancreatitis

G. Morana; Treviso/IT

C. Management of complications  
of pancreatitis

C.D. Becker; Geneva/CH

• Discussion

**Saturday, March 5, 16:00–17:30**

### **MC 1019 Cystic tumours, endocrine neoplasms and congenital anomalies**

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Moderator: I.G. Lupescu; Bucharest/RO

A. Cystic tumours

R. Pozzi-Mucelli; Verona/IT

B. Endocrine and other solid  
pancreatic tumours

C.J. Zech; Munich/DE

C. Congenital and developmental anomalies

M. Karcaaltincaba; Ankara/TR

• Discussion

**Sunday, March 6, 08:30–10:00**

### **MC 1119 Imaging adenocarcinoma**

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Moderator: T.K. Helmberger; Munich/DE

A. MDCT:

how to diagnose, how to stage

W. Schima; Vienna/AT

B. MR imaging:

a main course or just a side dish?

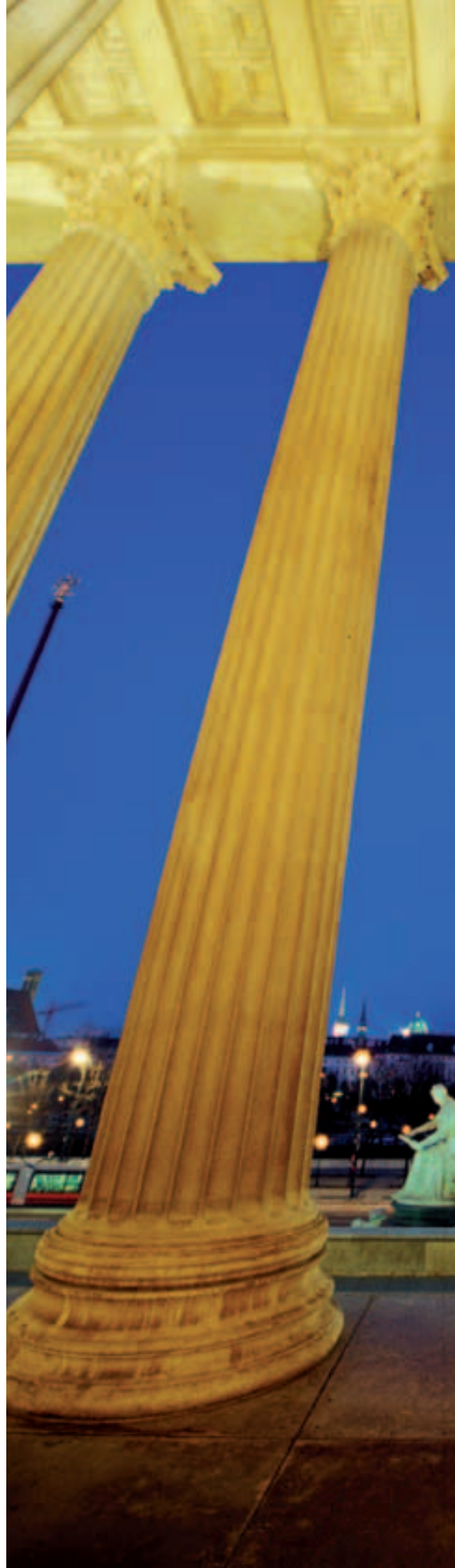
M. Zins; Paris/FR

C. Detection and staging:

multimodality comparison

D.E. Malone; Dublin/IE

• Discussion





# Mini Courses

## The Beauty of Basic Knowledge: Interpretation of the Chest Radiograph

**Thursday, March 3, 14:00–15:00**

**MC 21A** Interpreting the chest  
radiograph: basic concepts

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J. Cáceres; Barcelona/ES

**Friday, March 4, 14:00–15:00**

**MC 21B** Lobar collapse

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J. Cáceres; Barcelona/ES

**Saturday, March 5, 12:30–13:30**

**MC 21C** Air-space disease

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J. Cáceres; Barcelona/ES

**Sunday, March 6, 12:30–13:30**

**MC 21D** Rounded lesion(s)

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J. Cáceres; Barcelona/ES

**Monday, March 7, 12:30–13:30**

**MC 21E** Decreased opacity of the lung(s)

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J. Cáceres; Barcelona/ES

### Registration:

The number of participants for each session is restricted to 50. Participants need to register in advance as of October 1, 2010 ([www.myESR.org](http://www.myESR.org)).

# Mini Courses

## Functional Imaging of Tumours: How to Do It

**Thursday, March 3, 16:00–17:30**

**MC 222 Basics you should know**

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Moderator: J. Stoker; Amsterdam/NL

A. Tumour angiogenesis and  
perfusion parameters

D. Sahani; Boston, MA/US

B. Diffusion imaging

B.A. Taouli; New York, NY/US

C. Metabolic imaging using PET/CT

G. Antoch; Essen/DE

**Friday, March 4, 08:30–10:00**

**MC 322 Functional and ultra  
structural MR**

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Moderator: L. Martí-Bonmatí; Valencia/ES

A. Diffusion imaging and whole body MRI

A. Luciani; Creteil/FR

B. Quality and quality control in DCE-MRI  
and DCE-CT

V.J. Goh; Northwood/UK

C. Synthesis: functional imaging  
for tumour management

V. Vilgrain; Clichy/FR

**Friday, March 4, 16:00–17:30**

**MC 622 Dynamic contrast-enhanced  
(DCE) imaging**

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Moderator: A. Ba-Ssalamah; Vienna/AT

A. DCE-CT

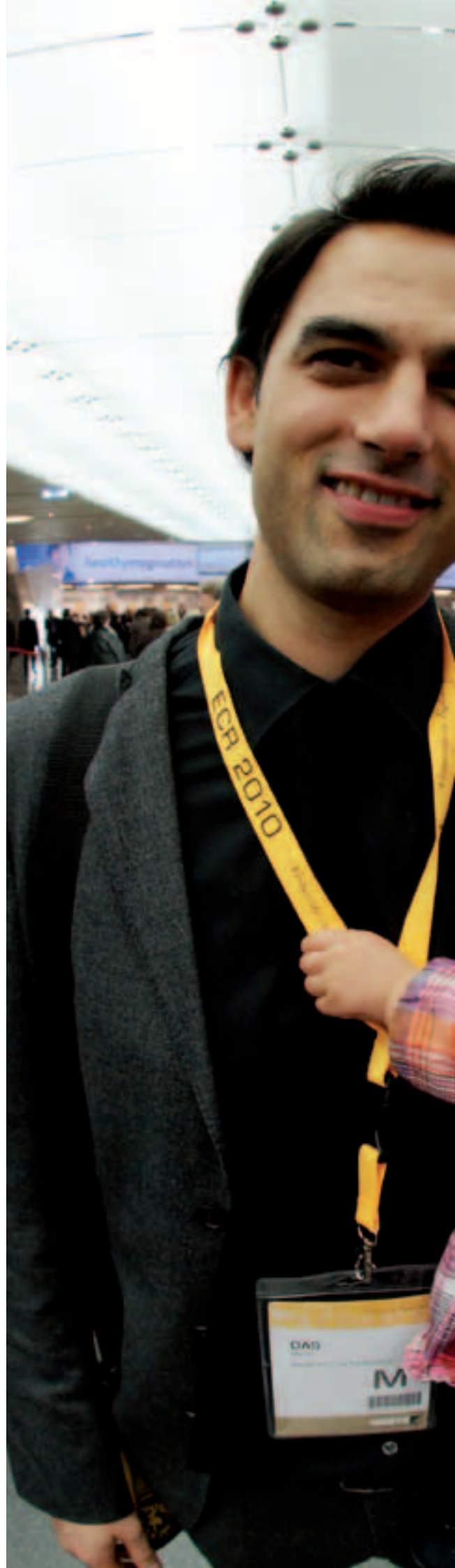
J. Votrubová; Prague/CZ

B. DCE-MR

A.R. Padhani; Northwood/UK

C. DCE-US

L. Solbiati; Busto Arsizio/IT





# Mini Courses

**Essentials in Oncologic Imaging:  
What Radiologists Need to Know**

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

**Sunday, March 6, 08:30–10:00  
MC 1125**

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- 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; Highland Park, IL/US
- Questions

**Sunday, March 6, 10:30–12:00  
MC 1225**

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- A. Pancreatic cancer  
F. Caseiro-Alves; Coimbra/PT
- B. Kidney cancer  
P.L. Choyke; Bethesda, MD/US
- C. Ovarian cancer  
H. Hricak; New York, NY/US
- Questions

**Sunday, March 6, 14:00–15:30  
MC 1325**

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- 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

**Sunday, March 6, 16:00–17:30  
MC 1425**

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- A. Lymphoma  
M.P. Federle; Stanford, CA/US
- B. Musculoskeletal neoplasms  
M.F. Reiser; Munich/DE
- C. Chemo- and radiation therapy-induced toxicity  
H.-U. Kauczor; Heidelberg/DE
- Questions



# Refresher Courses

## Abdominal and Gastrointestinal

**Friday, March 4, 08:30–10:00**

**RC 301 Abdominal lymphoma**

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Moderator: A. Rahmouni; Creteil/FR

**A. Solid organs**

E. de Kerviler; Paris/FR

**B. Hollow abdominal viscera**

R.M. Mendelson; Perth, WA/AU

**C. Genitourinary tract involvement**

J.A. Spencer; Leeds/UK

**Saturday, March 5, 08:30–10:00**

**RC 701 Tumour evaluation:  
beyond morphology**

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- Chairman's introduction

O. Lucidarme; Paris/FR

**A. US and CEUS**

M. Claudon; Vandoeuvre-les-Nancy/FR

**B. CT and MRI perfusion**

F. Berger; Munich/DE

**C. MR diffusion and PET/CT**

C. Della Pina; Pisa/IT

- Panel discussion:

How can you easily implement some functional imaging into your practice?

**Sunday, March 6, 08:30–10:00**

**RC 1101 Inflammatory bowel disease:  
which test and when?**

---

- Chairman's introduction

Z. Tarján; Budapest/HU

**A. Role of US in diagnosis and follow-up**

V. Válek; Brno/CZ

**B. Role of CT in diagnosis and follow-up**

S. Romano; Naples/IT

**C. CT versus MRI**

M.A. Patak; Zurich/CH

- Panel discussion:

Five good reasons for the radiologist to be at the forefront

**Sunday, March 6, 14:00–15:30**

**RC 1301 Abdominal MRI:  
protocols that work**

---

Moderator: S.D. Yarmenitis; Iraklion/GR

**A. Liver**

W. Schima; Vienna/AT

**B. Small bowel and colon**

N. Papanikolaou; Iraklion/GR

**C. Pancreas and bile ducts**

C. Matos; Brussels/BE



# Refresher Courses

## Abdominal and Gastrointestinal

**Sunday, March 6, 16:00–17:30**

**RC 1401 CT colonography: the big picture**

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Moderator: S.A. Taylor; London/UK

- A. Optimised techniques for best results  
D. Regge; Torino/IT
- B. Guide to interpretation and generating a useful report  
T. Mang; Vienna/AT
- C. Dose, risk and relevance in a screening population  
A. Graser; Munich/DE

**Monday, March 7, 16:00–17:30**

**RC 1801 Peritoneum and mesentery**

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Moderator: F.-T. Fork; Malmö/SE

- A. Primary solid peritoneal and mesenteric tumours  
M. Zins; Paris/FR
- B. Imaging of cystic mesenteric or omental masses  
C. Stoupis; Maennedorf/CH
- C. Patterns of peritoneal carcinomatosis  
P.K. Prassopoulos; Alexandroupolis/GR

**Monday, March 7, 08:30–10:00**

**RC 1501 Rectal cancer imaging:  
all you need to know**

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- Chairman's introduction  
G. Brown; Sutton/UK
- A. Staging with US and CT  
A. Maier; Vienna/AT
- B. Staging with MRI  
L.C.O. Blomqvist; Stockholm/SE
- C. Monitoring therapy and detection of local recurrence  
R.G.H. Beets-Tan; Maastricht/NL
- Panel discussion:  
What are the clinicians really expecting from us: the main questions/answers



# Refresher Courses

## Breast

### Thursday, March 3, 16:00–17:30 RC 202 Breast US

- Moderator: E. Azavedo; Stockholm/SE
- A. The role of US in screening, diagnosis and staging of breast cancer  
J. Camps Herrero; Valencia/ES
  - B. The role of US in premalignant and benign lesions  
I. Günhan-Bilgen; Izmir/TR
  - C. New technologies in US  
R. Salvador; Barcelona/ES

### Friday, March 4, 16:00–17:30 RC 602 Breast MRI today

- Chairman's introduction  
W.A. Kaiser; Jena/DE
- A. How to set up a high quality breast MRI unit  
C.S. Balleyguier; Villejuif/FR
- B. Evidence-based controversies  
F. Sardanelli; Milan/IT
- C. How to improve the specificity of breast MRI  
J. Veltman; Nijmegen/NL
- Panel discussion:  
Do we find too many cancers with MRI?

### Sunday, March 6, 08:30–10:00 RC 1102 Interventional: from diagnosis to treatment

- Moderator: G. Acunas; Istanbul/TR
- A. Practical tips for a successful needle biopsy procedure  
M.T.G. Gaskarth; Cambridge/UK
  - B. Underestimation of disease in needle biopsies  
I. Schreer; Kiel/DE
  - C. New developments:  
Therapeutic interventional procedures  
B.D. Fornage; Houston, TX/US

### Sunday, March 6, 14:00–15:30 RC 1302 Update in BI-RADS

- Moderator: G. Forrai; Budapest/HU
- A. Mammography  
E. Aribal; Istanbul/TR
  - B. US  
G. Rizzatto; Gorizia/IT
  - C. MRI  
C.K. Kuhl; Aachen/DE

### Sunday, March 6, 16:00–17:30 RC 1402 Evaluation of the treated breast and follow-up

- Chairman's introduction  
A. Tardivon; Paris/FR
- A. Evaluation of residual disease after excisional biopsy  
C. Boetes; Maastricht/NL
- B. Evaluation of response to neoadjuvant chemotherapy  
P.A.T. Baltzer; Jena/DE
- C. Surveillance for and detection of recurrent disease after therapy  
F.J. Gilbert; Aberdeen/UK
- Panel discussion:  
The new challenge in breast cancer: evaluation of response



# Refresher Courses

## Cardiac

**Thursday, March 3, 16:00–17:30**

**RC 203 Cardiac imaging: what's up Doc?**

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Moderator: C. Peebles; Southampton/UK

A. 3T cardiac imaging: twice as good?

M. Gutberlet; Leipzig/DE

B. Cardiac CT: how low can dose go?

S. Leschka; St. Gallen/CH

C. Cardiac post-processing: latest tricks

B.J. Wintersperger; Toronto, ON/CA

**Friday, March 4, 08:30–10:00**

**RC 303 Systematic approach to congenital heart disease (CHD)**

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Moderator: A.P. Parkar; Bergen/NO

A. Vascular rings and other congenital vascular things

A.J.B.S. Madureira; Porto/PT

B. MRI: getting more specific

A.M. Taylor; London/UK

C. MDCT: the expanding role

A. Küttner; Frankfurt a. Main/DE

**Sunday, March 6, 16:00–17:30**

**RC 1403 MRI and CT before cardiac interventions or surgery**

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• Chairman's introduction

G.P. Krestin; Rotterdam/NL

A. Can CT predict the outcome of percutaneous intervention?

C. Loewe; Vienna/AT

B. Can MRI predict the outcome of coronary revascularisation?

M. Francone; Rome/IT

C. The value of CT before percutaneous aortic valve replacement

R. Salgado; Antwerp/BE

• Panel discussion:

Improve your interaction with your colleagues

**Monday, March 7, 08:30–10:00**

**RC 1503 Imaging advanced stages of ischaemic heart disease**

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Moderator: J.-N. Dacher; Rouen/FR

A. CT: angiography, function and perfusion

G. Feuchtner; Innsbruck/AT

B. MR perfusion imaging:

how much quantification do we need?

L. Natale; Rome/IT

C. Imaging patients after bypass surgery

K.-F. Kreitner; Mainz/DE

# Refresher Courses

## Chest

**Friday, March 4, 16:00–17:30**

**RC 604 Bedside chest imaging**

Moderator: H. Prosch; Vienna/AT

A. Bedside chest radiography: technical aspects and correct interpretation  
E. Eisenhuber; Vienna/AT

B. Bedside thoracic ultrasonography: how far can it go?  
K. Vidmar Kocijancic; Ljubljana/SI

C. Radiologic-guided bedside interventions of the thorax  
F. Gleeson; Oxford/UK

**Saturday, March 5, 08:30–10:00**

**RC 704 Non-small cell lung cancer**

Moderator: J. Vilar; Valencia/ES

A. Update in TNM classification  
S. Diederich; Düsseldorf/DE

B. PET/CT in lung cancer  
N. Howarth; Chêne-Bougeries/CH

C. Radiofrequency ablation of NSCLC: current status  
F. Deschamps; Villejuif/FR

**Saturday, March 5, 16:00–17:30**

**RC 1004 Diffuse lung diseases: what the radiologist should know**

- Chairman's introduction  
C. Schaefer-Prokop; Amersfoort/NL

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)  
M.-L. Storto; Chieti/IT

C. From pattern recognition to disease diagnosis: a practical approach (part 2)  
T. Franquet; Barcelona/ES

- Panel discussion:  
how do we report CT of the chest?

**Sunday, March 6, 08:30–10:00**

**RC 1104 CT angiography of the chest beyond aorta**

Moderator: C. Engelke; Göttingen/DE

A. CT angiography for PE diagnosis during pregnancy and post-partum  
M.-P. Revel; Paris/FR

B. CT angiography of large vessel vasculitis  
A.A. Bankier; Boston, MA/US

C. CT angiography for severe hemoptysis  
A.R. Larici; Rome/IT

**Sunday, March 6, 14:00–15:30**

**RC 1304 When CT sees both the heart and the lungs**

- Chairman's introduction  
L. Bonomo; Rome/IT

A. Anatomic cardiac details that every radiologist should know  
S.P.G. Padley; London/UK

B. Incidental findings and their clinical relevance  
A. de Roos; Leiden/NL

C. Pulmonary hypertension and right ventricle function  
M. Rémy-Jardin; Lille/FR

- Panel discussion:  
Ready for routine reporting of cardiovascular findings on CT scans of the chest?

**Monday, March 7, 16:00–17:30**

**RC 1804 The new faces of pulmonary infection**

Moderator: B. Feragalli; Chieti/IT

A. Aspergillosis in the immunocompromised patient  
S.J. Copley; London/UK

B. The changing patterns of pulmonary tuberculosis  
W.F.M. De Wever; Leuven/BE

C. Emerging viral infections  
C.J. Herold; Vienna/AT

# Refresher Courses

## Computer Applications

**Thursday, March 3, 16:00–17:30**

### **RC 205 Computer-aided detection/diagnosis**

- Chairman's introduction  
E. Pietka; Gliwice/PL
- A. The role of CAD in modern-day imaging  
A. Todd-Pokropek; London/UK
- B. Emergence of open-source software  
O. Ratib; Geneva/CH
- C. CAD in oncology: from principles to  
clinical implementation  
E. Neri; Pisa/IT
- Panel discussion:  
The take-home points

**Monday, March 7, 16:00–17:30**

### **RC 1805 Image sharing**

- Chairman's introduction  
D. Caramella; Pisa/IT
- A. Image data beyond radiology:  
new techniques  
F.H. Barneveld Binkhuysen; Soest/NL
- B. Intraoperative imaging for surgeons  
A. Pietrabissa; Pisa/IT
- C. Images and models for CAS  
H.U. Lemke; Berlin/DE
- Panel discussion:  
The take-home points





# Refresher Courses

## Molecular Imaging and Contrast Media

**Friday, March 4, 08:30–10:00**

**RC 306 Contrast media:  
always as safe as we wish?**

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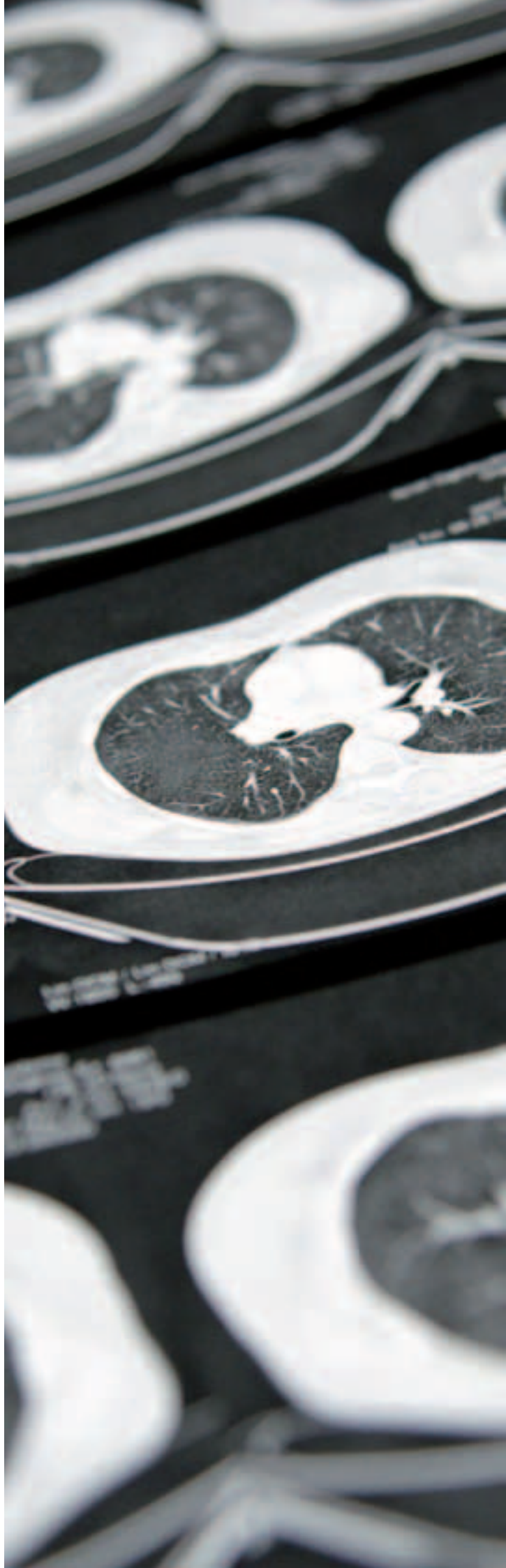
- Chairman's introduction  
S.K. Morcos; Sheffield/UK
- A. Iodinated CM: whether CIN is a SIN,  
and how to avoid it  
R.W.F. Geenen; Alkmaar/NL
- B. MR contrast agents: rumble in the jungle  
G. Heinz-Peer; Vienna/AT
- C. PET tracers: established tracers and  
those on the horizon  
M. Schwaiger; Munich/DE
- Panel discussion:  
What specific precautions are mandatory  
in order to guarantee contrast media safety  
to patients and healthcare professionals?

**Friday, March 4, 16:00–17:30**

**RC 606 Clinical potential of  
molecular imaging:  
between dream and reality**

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- Moderator: G. Frija; Paris/FR
- A. Molecular imaging from bench to bedside  
F.M.A. Kiessling; Aachen/DE
  - B. Cardiovascular disease  
L. Hofstra; Maastricht/NL
  - C. Oncology  
M.G. Pomper; Baltimore, MD/US



# Refresher Courses

## Genitourinary

**Friday, March 4, 08:30–10:00**

### **RC 307 Gynaecologic emergency and its mimics**

- Moderator: K. Kinkel; Chêne-Bougeries/CH
- A. Imaging of emergencies in pregnancy  
G. Masselli; Rome/IT
  - B. Emergencies of gynaecologic origin  
A.G. Rockall; London/UK
  - C. Emergencies of non-gynaecologic origin  
D. Akata; Ankara/TR

**Saturday, March 5, 08:30–10:00**

### **RC 707 CTU and MRU: urinary tract imaging**

- Moderator: R. Manfredi; Verona/IT
- A. CTU/MRU in acute obstruction  
T. Meindl; Munich/DE
  - B. Chronic/intermittent obstruction  
M.-F. Bellin; Le Kremlin-Bicêtre/FR
  - C. Tumours: CTU/MRU  
N.C. Cowan; Oxford/UK

**Saturday, March 5, 16:00–17:30**

### **RC 1007 Imaging of the scrotum and penis**

- Moderator: S.S. Ozbek; Izmir/TR
- A. Acute scrotum  
B. Brkljacic; Zagreb/HR
  - B. Scrotal tumours  
L.E. Derchi; Genoa/IT
  - C. Imaging of the penis  
M. Bertolotto; Trieste/IT

**Sunday, March 6, 14:00–15:30**

### **RC 1307 Kidney: imaging and intervention**

- Moderator: M.N. Özmen; Ankara/TR
- A. Angiomyolipoma: a review  
N. Grenier; Bordeaux/FR
  - B. The (not so) rare malignant tumours of the kidney  
P. Hallscheidt; Heidelberg/DE
  - C. Radiofrequency and cryotherapy of renal tumours: techniques, results and complications  
J.-M. Correas; Paris/FR

**Sunday, March 6, 16:00–17:30**

### **RC 1407 MRI in prostate cancer**

- Chairman's introduction  
J. Venancio; Lisbon/PT
- A. MRI in detection of prostatic cancer  
F. Cornud; Paris/FR
- B. MRI in the 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?

# Refresher Courses

## Head and Neck

**Thursday, March 3, 16:00–17:30**

**RC 208 An insight into middle ear pathologies**

Moderator: T.J. Vogl; Frankfurt a. Main/DE

- A. Normal anatomy and congenital malformations of the middle ear  
C. Czerny; Vienna/AT
- B. Cholesteatoma and chronic infection  
F. Veillon; Strasbourg/FR
- C. Implants and postoperative findings in the middle ear  
B. Verbist; Leiden/NL

**Saturday, March 5, 08:30–10:00**

**RC 708 Suprahyoid neck**

Moderator: D. Pereira Coutinho; Lisbon/PT

- A. Anatomy-guided differential diagnoses  
C.R. Habermann; Hamburg/DE
- B. Suprahyoid neck lesions in daily clinical practice  
V. Chong; Singapore/SG
- C. Tips and tricks for suprahyoid neck lesions  
A. Trojanowska; Lublin/PL

**Saturday, March 5, 16:00–17:30**

**RC 1008 Runny and stuffy noses: paranasal sinus imaging**

- Chairman's introduction  
M.G. Mack; Frankfurt a. Main/DE
- A. Functional anatomy and anatomic variants  
S. Robinson; Vienna/AT
- B. Sinusitis: imaging findings before and after treatment  
D. Farina; Brescia/IT
- C. Sinonasal tumours  
H.B. Eggesbø; Oslo/NO
- Panel discussion:  
Diagnostic considerations in runny and stuffy noses

**Monday, March 7, 08:30–10:00**

**RC 1508 Common pains in the head and neck**

Moderator: K. Hrabák; Budapest/HU

- A. Salivary colic  
T. Beale; London/UK
- B. Trigeminal neuralgia  
B.F. Schuknecht; Zurich/CH
- C. Painful swallowing  
M. Becker; Geneva/CH

**Monday, March 7, 16:00–17:30**

**RC 1808 Management of the post-treatment head and neck: a diagnostic dilemma**

- Chairman's introduction  
R. Maroldi; Brescia/IT
- A. Expected and unexpected findings after treatment  
R. Hermans; Leuven/BE
- B. Surveillance imaging, tumour recurrence and treatment complications  
A.D. King; Hong Kong/CN
- C. Predicting outcome after radiation therapy in head and neck cancer: what is evidence-based?  
R. Maroldi; Brescia/IT
- Panel discussion:  
Recurrence, inflammation, necrosis or scar: is imaging useful?



# Refresher Courses

## Interventional Radiology

**Thursday, March 3, 16:00–17:30**

**RC 209 The trauma patient**

- Chairman's introduction  
A. Nicholson; Leeds/UK
- A. Imaging modalities and logistics  
J. Ferda; Plzen/CZ
- B. Management of arterial trauma  
M. Katoh; Homburg/DE
- C. Solid organ trauma  
J. Cazejust; Paris/FR
- Panel discussion:  
Do we need IR in the ER?

**Friday, March 4, 16:00–17:30**

**RC 609 RF ablation beyond the liver**

- Moderator: A. Adam; London/UK
- A. RF ablation in bone  
A.D. Kelekis; Athens/GR
  - B. RF ablation in the kidney  
M.A. Farrell; Waterford/IE
  - C. RF ablation in the chest  
I. Bargellini; Pisa/IT

**Sunday, March 6, 08:30–10:00**

**RC 1109 Venous intervention**

- Moderator: L. Lonn; Copenhagen/DK
- A. DVT and prevention of pulmonary emboli  
C. Binkert; Winterthur/CH
  - B. Endovascular treatment of varicose veins  
D.J. West; Stoke-on-Trent/UK
  - C. Central venous occlusions  
P. Haage; Wuppertal/DE

**Sunday, March 6, 14:00–15:30**

**RC 1309 Infection and percutaneous drainage**

- Moderator: M. Bezzi; Rome/IT
- A. Empyema  
A. Keeling; Dublin/IE
  - B. Abdominal abscess  
V. Válek; Brno/CZ
  - C. Pelvic abscess  
M.A. Funovics; Vienna/AT

**Sunday, March 6, 16:00–17:30**

**RC 1409 Oncologic interventions in the liver**

- Moderator: M. Glynos; Athens/GR
- A. RF ablation  
F. Deschamps; Villejuif/FR
  - B. Portal embolisation  
O.M. van Delden; Amsterdam/NL
  - C. Future directions  
J. Kettenbach; Berne/CH

**Monday, March 7, 08:30–10:00**

**RC 1509 Musculoskeletal interventions**

- Chairman's introduction  
A. Gangi; Strasbourg/FR
- A. Guidelines for spinal infiltrations and nerve blocks  
S. Masala; Rome/IT
- B. Vertebroplasty and kyphoplasty  
T. Sabharwal; London/UK
- C. Interventional management of painful osseous metastases  
A.G. Ryan; Waterford City/IE
- Panel discussion:  
Experience-based vs evidence-based practice in spinal intervention



# Refresher Courses

## Musculoskeletal

**Friday, March 4, 16:00–17:30**

**RC 610 Metabolic bone diseases**

- Moderator: J. Freyschmidt; Bremen/DE
- A. Metabolic bone disease for the practicing radiologist  
M. Sundaram; Cleveland, OH/US
  - B. Latest advance in osteoporosis  
C.R. Krestan; Vienna/AT
  - C. Rickets, osteomalacia, hyperparathyroidism and renal osteodystrophy  
J.E. Adams; Manchester/UK

**Saturday, March 5, 08:30–10:00**

**RC 710 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  
O. Hauger; Bordeaux/FR
- Panel discussion:  
Can we still use the term BME or should we be more specific?

**Saturday, March 5, 16:00–17:30**

**RC 1010 Hip through the ages**

- Moderator: E.C. Kavanagh; Dublin/IE
- A. The paediatric hip  
D.J. Wilson; Oxford/UK
  - B. The hip in the young athlete  
C.W.A. Pfirrmann; Zurich/CH
  - C. The ageing hip  
A.H. Karantanas; Iraklion/GR

**Sunday, March 6, 08:30–10:00**

**RC 1110 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 6, 14:00–15:30**

**RC 1310 Postoperative imaging of the lower extremity**

- Moderator: F. Aparisi; Valencia/ES
- A. Hip  
S.J. Eustace; Dublin/IE
  - B. Knee  
K. Verstraete; Gent/BE
  - C. Ankle  
C. Masciocchi; L'Aquila/IT

**Monday, March 7, 16:00–17:30**

**RC 1810 Bone tumours**

- Chairman's introduction  
J.L. Bloem; Leiden/NL
- A. Diagnosis: from radiographs to MRI  
K. Wörtler; Munich/DE
- B. Staging and intervention  
S. James; Birmingham/UK
- C. New techniques (including DWI)  
S. Pans; Leuven/BE
- Panel discussion:  
What is the clinical impact of advanced imaging, and when should what kind of advanced/sophisticated imaging be used?



# Refresher Courses

## Neuro

**Thursday, March 3, 16:00–17:30**

**RC 211 Introduction to the brain**

Moderator: T. Stosic-Opincal; Belgrade/RS

- A. Brain anatomy made easy  
T.A. Yousry; London/UK
- B. Pattern recognition and normal variants to know  
M.M. Thurnher; Vienna/AT
- C. Clinical symptoms correlated to brain anatomy  
S. Sunaert; Leuven/BE

**Saturday, March 5, 16:00–17:30**

**RC 1011 Common disorders of the paediatric brain**

Moderator: O. Flodmark; Stockholm/SE

- A. Foetal MR imaging: more than just T2-weighted images  
C. Hoffmann; Tel Hashomer/IL
- B. Normal findings and pitfalls in paediatric neuroimaging  
A. Rossi; Genoa/IT
- C. Neuroimaging in the acutely ill child  
E. Vázquez; Barcelona/ES

**Sunday, March 6, 08:30–10:00**

**RC 1111 Imaging stroke**

- Chairman's introduction  
R. Siemund; Lund/SE
- A. Etiology and pathophysiology of stroke  
R. von Kummer; Dresden/DE
- B. Stroke imaging in the acute phase or in critically ill patients  
P.M. Parizel; Antwerp/BE
- C. Intervention in stroke  
M. Leonardi; Bologna/IT
- Panel discussion:  
Where do we stand in stroke therapy today?

**Sunday, March 6, 14:00–15:30**

**RC 1311 Focal brain lesions**

Moderator: K. Abul-Kasim; Malmö/SE

- A. Differential diagnosis of T2 hyperintense lesions  
A. Rovira-Cañellas; Barcelona/ES
- B. Neoplasm or non-neoplasm  
Z. Rumboldt; Charleston, SC/US
- C. Adult glioma: advanced neuroimaging for treatment planning  
C. Calli; Izmir/TR

**Sunday, March 6, 16:00–17:30**

**RC 1411 Update on brain aneurysms**

- Chairman's introduction to brain aneurysms  
S. Bracad; Nancy/FR
- A. Subarachnoid haemorrhage  
L. van den Hauwe; Brasschaat/BE
- B. CTA/MRA in aneurysm diagnosis  
Z. Merhemic; Sarajevo/BA
- C. Treatment of aneurysms 2011  
P. Vilela; Almada/PT
- Panel discussion:  
Where do we stand in brain aneurysm treatment today?

**Monday, March 7, 08:30–10:00**

**RC 1511 Epilepsy**

- Chairman's introduction  
B. Gómez-Ansón; Barcelona/ES
- A. Tumour as a cause of epilepsy  
M. Stajgis; Poznan/PL
- B. Non-neoplastic causes of epilepsy  
M.A. Papathanasiou; Athens/GR
- C. Multimodality epilepsy protocol  
L. Stenberg; Lund/SE
- Panel discussion:  
Imaging epilepsy?

**Monday, March 7, 16:00–17:30**

**RC 1811 Spinal cord**

Moderator: M. Muto; Naples/IT

- A. Myelitis vs myelopathy  
M. Gallucci; LAquila/IT
- B. Spinal intradural tumours  
J.W.M. Van Goethem; Antwerp/BE
- C. Vascular disorders of the spinal cord  
R. Nijenhuis; Maastricht/NL

# Refresher Courses

## Paediatric

**Saturday, March 5, 08:30–10:00**

**RC 712 Advanced brain imaging**

- Moderator: C. Venstermans; Antwerp/BE
- A. Diffusion tensor MRI  
A. Righini; Milan/IT
  - B. MR spectroscopy  
L. Astrakas; Ioannina/GR
  - C. Vascular diseases:  
the role of CTA, MRA, angiography (DSA)  
N. Girard; Marseille/FR

**Sunday, March 6, 08:30–10:00**

**RC 1112 Abdominal emergencies in children**

- Moderator: M. Haliloglu; Ankara/TR
- A. Non-traumatic acute abdomen  
C. Veyrac; Montpellier/FR
  - B. GU emergencies in children:  
kidney, ovary, testis  
M. Riccabona; Graz/AT
  - C. Abdominal trauma in children  
M.P. García-Peña; Barcelona/ES

**Sunday, March 6, 14:00–15:30**

**RC 1312 Safety first**

- Moderator: R. Fotter; Graz/AT
- A. Security and dose with conventional  
radiology  
J.-F. Chateil; Bordeaux/FR
  - B. CT in children: dose reduction strategies  
R.A.J. Nievelstein; Utrecht/NL
  - C. Ensuring safety for infants undergoing MRI  
T.G. Maris; Iraklion/GR

**Sunday, March 6, 16:00–17:30**

**RC 1412 Children's bones and joints**

- Moderator: M. Rasero; Madrid/ES
- A. Imaging findings in childhood  
osteomyelitis  
R.R. van Rijn; Amsterdam/NL
  - B. Hip dysplasia:  
US techniques and recommendations  
K. Rosendahl; Bergen/NO
  - C. Whole body imaging: PET/CT vs MRI  
P.D. Humphries; London/UK

**Monday, March 7, 08:30–10:00**

**RC 1512 Chest imaging:  
what to use and when to use it**

- Moderator: M. Raissaki; Iraklion/GR
- A. Thoracic trauma and  
foreign body inhalation  
M.L. Lobo; Lisbon/PT
  - B. Infiltrative diseases of the chest  
G. Staatz; Mainz/DE
  - C. MRI of the chest in children  
M.U. Puderbach; Heidelberg/DE

# Refresher Courses

## Physics in Radiology

**Saturday, March 5, 16:00–17:30**

### **RC 1013 Diagnostic radiology and pregnancy**

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- Moderators: R. Padovani; Udine/IT  
H. Ringertz; Linköping/SE
- 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 6, 08:30–10:00**

### **RC 1113 High field MRI: beyond 3T**

- 
- Moderators: M. Tosetti; Pisa/IT  
A.J. van der Molen; Leiden/NL
- A. Challenges of high field MR  
M. Bock; Heidelberg/DE
- B. A complicated solution to a complicated problem: transmit array  
K.P. Pruessmann; Zurich/CH
- C. Is 7T ready for clinical use?  
R.W. Bowtell; Nottingham/UK

**Sunday, March 6, 14:00–15:30**

### **RC 1313 Clinical audit, accreditation and the role of the medical physicist**

- 
- Moderators: W.J.M. van der Putten; Galway/IE  
M. Wucherer; Nürnberg/DE
- A. European-wide perspective on clinical audit  
H. Jarvinen; Helsinki/FI
- B. National perspective: clinical audit inspections  
S. Ebdon-Jackson; Didcot/UK
- C. Hospital perspective on clinical audit  
P. Gilligan; Dublin/IE

**Sunday, March 6, 16:00–17:30**

### **RC 1413 Visualisation, perception and image processing**

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- Moderators: A.A. Lammertsma; Amsterdam/NL  
B.B. Wein; Aachen/DE
- A. Visualisation and perception  
A.G. Gale; Loughborough/UK
- B. Image processing and perception  
B.M. ter Haar Romeny; Eindhoven/NL
- C. Clinical application of image processing  
A. Persson; Linköping/SE

**Monday, March 7, 08:30–10:00**

### **RC 1513 Simulations make us understand x-ray imaging**

- 
- Moderators: K. Bacher; Gent/BE  
S. Barter; Cambridge/UK
- A. Monte Carlo simulations of x-ray tubes and x-ray spectra  
M. Koutaloni; London/UK
- B. Monte Carlo simulations of virtual patients (anthropomorphic phantoms)  
P.R. Bakic; Philadelphia, PA/US
- C. Monte Carlo simulations of x-ray detectors and x-ray images  
K. Smans; Leuven/BE



# Refresher Courses

## Radiographers

**Saturday, March 5, 08:30–10:00**

### **RC 714 Radiography as a profession and a science**

- Moderators: N. Kinsman; Poole/UK  
C. van Kuijk; Amsterdam/NL
- A. Cultural competence in the practice of radiography: international implications  
C. Cowling; Rockhampton, QLD/AU
- B. Basic technique for image interpretation  
C. Patrick; Poole/UK

**Saturday, March 5, 16:00–17:30**

### **RC 1014 Radiography as an ethical practice**

- Moderators: B.T. Andersson; Lund/SE  
A.L. Baert; Kessel-Lo/BE
- A. The relationship between man and technology in radiographic practice: a narrative approach  
B.R. Musmann; Odense/DK
- B. Ethical codes across Europe  
D.S. Oreti; Monfalcone/IT
- C. Ethical problems in diagnostic radiology in terms of radiation protection  
K. Paalimäki-Paakki; Oulu/FI

**Sunday, March 6, 08:30–10:00**

### **RC 1114 Radiation protection and optimisation of radiological procedures**

- Moderators: K. Åhlström Riklund; Umeå/SE  
D. Katsifarakis; Athens/GR
- A. Diagnostic quality and patient dose management in digital radiography systems  
L.J.O.C. Lanca; Lisbon/PT
- B. The radiographer's position in the initial optimisation procedure  
D. Pekarovic; Ljubljana/SI
- C. Radiation dose optimisation and the radiographer's role  
A. Henner; Oulu/FI

**Sunday, March 6, 14:00–15:30**

### **RC 1314 Radiotherapy and integration with a diagnostic-therapeutic path**

- Moderators: S. Geers-van Gemeren; Utrecht/NL  
C. Hohl; Siegburg/DE
- A. Electronic portal imaging used for development and improvements in radiation therapy for prostate cancer  
A. Thorolfsson; Reykjavik/IS
- B. Image-guided radiation therapy: when imaging meets therapy  
A. Sarchosoglou; Athens/GR
- C. Bridges between radiotherapy and radiography from a European perspective  
K. Sjövall; Lund/SE

**Sunday, March 6, 16:00–17:30**

### **RC 1414 Radiography in the operating theatre**

- Moderators: R. Passariello; Rome/IT  
A. Yule; Cardiff/UK
- A. Cone-beam CT imaging in the operating room during endovascular aortic repair (EVAR)  
K.R. Eide; Trondheim/NO
- B. Key radiographic skills in the operating theatre  
K.G. Holmes; Lancaster/UK

# Refresher Courses

## Vascular

**Thursday, March 3, 16:00–17:30**

### **RC 215 Extracranial vascular malformations: imaging strategies prior to endovascular therapy**

- Chairman's introduction  
J.E. Jackson; London/UK
- A. Pathology, correct anatomical classification and clinical work-up  
H. Kubiena; Vienna/AT
- B. Imaging of capillary, venous, lymphovenous and arteriovenous malformations  
L. Schultze Kool; Nijmegen/NL
- C. Technical aspects of endovascular treatment  
P.C. Rowlands; Liverpool/UK
- Panel discussion:  
Who should decide management?

**Friday, March 4, 16:00–17:30**

### **RC 615 Non-traumatic acute aortic dissection and malperfusion syndromes**

- Chairman's introduction  
A.-M. Belli; London/UK
- A. Predisposing factors for developing non-traumatic acute aortic dissections  
V. Bérczi; Budapest/HU
- B. Acute aortic dissections: detection and 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 endovascular management?

**Saturday, March 5, 08:30–10:00**

### **RC 715 Vascular imaging: diabetes and vascular occlusive disease**

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

**Monday, March 7, 16:00–17:30**

### **RC 1815 Advances in vascular imaging**

- Moderator: P.M.T. Pattynama; Gouda/NL
- A. Vascular imaging at 3T  
H. Hoppe; Berne/CH
  - B. Dual energy CT and time resolved CT  
K. Nikolaou; Munich/DE
  - C. Flat panel CT (C-arm CT)  
H. Rousseau; Toulouse/FR



# EFOMP Workshop

## New Technology in Diagnostic Radiology: Advances in Breast Imaging

### Organising Committee:

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**Chairman:** H. Bosmans; Leuven/BE

**Members:** S. Christofides; Nicosia/CY  
A. Del Guerra; Pisa/IT  
K. Faulkner; Wallsend/UK  
A. Torresin; Milan/IT

### Saturday, March 5, 08:30–10:00

#### EF 1 Advances in technology for breast imaging

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**Moderators:** S. Christofides; Nicosia/CY  
A. Del Guerra; Pisa/IT

- **Welcome address**  
S. Christofides; Nicosia/CY  
Y. Menu; Paris/FR
- **Breast tomosynthesis**  
P.R. Bakic; Philadelphia, PA/US
- **Breast CT**  
W.A. Kalender; Erlangen/DE
- **X-ray colour in breast imaging**  
C. Ullberg; Stockholm/SE

### Saturday, March 5, 10:30–12:00

#### EF 2 Screening and diagnostic breast imaging

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**Moderators:** K. Faulkner; Wallsend/UK  
J.N. Vassileva; Sofia/BG

- **QA, image quality and dose in screening with digital mammography**  
H. Bosmans; Leuven/BE
- **MRI diagnostic breast imaging**  
K. Gilhuijs; Amsterdam/NL
- **Is there a future for radioisotope breast imaging?**  
S. Ziegler; Munich/DE



# E<sup>3</sup> – European Excellence in Education

## Foundation Course: Paediatric Radiology

**Friday, March 4, 08:30–10:00**

### **E<sup>3</sup> 320b Genitourinary problems: common daily practice**

Moderator: V. Donoghue; Dublin/IE

A. Imaging strategy in urinary infections  
M. Riccabona; Graz/AT

B. Urinary tract dilatation: what should be done, to whom and when?  
F.E. Avni; Brussels/BE

C. Renal and pararenal masses: basic rules  
P. Tomà; Rome/IT

**Friday, March 4, 10:30–12:00**

### **E<sup>3</sup> 420 Common digestive problems in children: the radiologist as a key player**

Moderator: A. Paterson; Belfast/UK

A. Abdominal and pelvic pain: a practical approach  
S.G.F. Robben; Maastricht/NL

B. Jaundice in children: common causes and imaging strategy  
D. Pariente; Le Kremlin-Bicêtre/FR

C. Neonatal bowel obstruction: the role of the radiologist  
S. Ryan; Dublin/IE

**Friday, March 4, 14:00–15:30**

### **E<sup>3</sup> 520 Thoracic diseases: common, important and potentially devastating**

Moderator: C.E. de Lange; Oslo/NO

A. Investigating a child with a „cough“: a pragmatic approach  
C. Owens; London/UK

B. Unresolving pneumonia: when and how to image, and clinical consequences  
K. Foster; Birmingham/UK

C. Common cardiac disorders in children: the basic role of imaging  
C.J. Kellenberger; Zurich/CH

**Friday, March 4, 16:00–17:30**

### **E<sup>3</sup> 620b Common musculoskeletal disorders: how to avoid the traps!**

Moderator: A.C. Offiah; Sheffield/UK

A. Imaging a child with a limp  
A. Sprigg; Sheffield/UK

B. Non-accidental injury: a radiologist's nightmare  
P.K. Kleinman; Boston, MA/US

C. Bone and joint infection and inflammation: pearls and pitfalls  
G.-H. Sebag; Paris/FR

**Saturday, March 5, 08:30–10:00**

### **E<sup>3</sup> 720 Paediatric neuroimaging: let's make it simple!**

Moderator: J.F. Schneider; Basle/CH

A. Neurosonography in the neonate: rules of thumb  
G. Enriquez; Barcelona/ES

B. Common congenital cerebral abnormalities  
A. Rossi; Genoa/IT

C. CNS infection and inflammation: signs you should not miss  
M.I. Argyropoulou; Ioannina/GR

**Saturday, March 5, 10:30–12:00**

### **E<sup>3</sup> 820 What should we know about antenatal imaging?**

Moderator: C. Adamsbaum; Paris/FR

A. Foetal imaging: current practice and evidence base  
C. Garel; Paris/FR

B. Ventricular enlargement and beyond  
E.H. Whitby; Sheffield/UK

C. Common chest and abdominal problems  
A. Darnell; Barcelona/ES

**Saturday, March 5, 12:15–13:15**

### **Self assessment test**

Moderator: V. Donoghue; Dublin/IE

Interactive computer evaluation of course learning

# E<sup>3</sup> – European Excellence in Education

## Interactive Teaching Sessions

**Thursday, March 3, 14:00–15:30**

**E<sup>3</sup> 120 Commonly missed diagnosis in musculoskeletal conditions**



F. Kainberger; Vienna/AT  
K. Bohndorf; Augsburg/DE

**Thursday, March 3, 16:00–17:30**

**E<sup>3</sup> 220a Common radiological problems: incidental abdominal masses**



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

**Thursday, March 3, 16:00–17:30**

**E<sup>3</sup> 220b Lung cancer: what the radiologist must report**



A. Staging  
A.R. Larici; Rome/IT  
B. Follow-up  
N. Howarth; Chêne-Bougeries/CH

**Friday, March 4, 08:30–10:00**

**E<sup>3</sup> 320a Thoracic infections: what the radiologist must report**



A. Pulmonary infections  
T. Franquet; Barcelona/ES  
B. Non-pulmonary chest infections  
C. Schaefer-Prokop; Amersfoort/NL

**Friday, March 4, 16:00–17:30**

**E<sup>3</sup> 620a Cancer of the uterus and cervix: what the radiologist must report**



B. Hamm; Berlin/DE  
H. Hricak; New York, NY/US

**Saturday, March 5, 16:00–17:30**

**E<sup>3</sup> 1020 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

**Sunday, March 6, 08:30–10:00**

**E<sup>3</sup> 1120 Common radiological problems: palpable lower neck mass – thyroid or not?**



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

**Sunday, March 6, 10:30–12:00**

**E<sup>3</sup> 1220 Breast cancer: what the radiologist must report**



J. Camps Herrero; Valencia/ES  
A. Tardivon; Paris/FR

**Sunday, March 6, 14:00–15:30**

**E<sup>3</sup> 1320 Common radiological problems: cardiovascular**



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

**Monday, March 7, 08:30–10:00**

**E<sup>3</sup> 1520 Prostate cancer: what the radiologist must report**



A.R. Padhani; Northwood/UK  
H.-P. Schlemmer; Heidelberg/DE



= Interactive session with electronic voting/self assessment

# E<sup>3</sup> – European Excellence in Education

## Interactive Teaching Sessions

**Monday, March 7, 10:30–12:00**

**E<sup>3</sup> 1620 Common radiological problems:  
cognitive decline and dementia**



B. Gómez-Ansón; Barcelona/ES  
F. Barkhof; Amsterdam/NL

**Monday, March 7, 14:00–15:30**

**E<sup>3</sup> 1720a Common radiological problems:  
incidental chest lesions**



A. Solitary pulmonary nodule  
E. Castañer; Sabadell/ES  
B. Mediastinal mass  
J. Vilar; Valencia/ES

**Monday, March 7, 14:00–15:30**

**E<sup>3</sup> 1720b Colorectal cancer:  
what the radiologist must report**



R.G.H. Beets-Tan; Maastricht/NL  
C. Hoeffel; Reims/FR

**Monday, March 7, 16:00–17:30**

**E<sup>3</sup> 1820 Female pelvic infections:  
what the radiologist must report**



J.A. Spencer; Leeds/UK  
R. Forstner; Salzburg/AT







# Accompanying Sessions

## ESOR Session

**Friday, March 4, 14:00–15:30**

## Radiology Trainees Forum

### RTF Highlighted Lectures

**Friday, March 4, 16:00–17:30**

Moderators: N.N.

- Musculoskeletal trauma in children  
I. Boric; Zagreb/HR
- Basic principles in the interpretation of signal intensities on T1- and T2-weighted images  
G. Wilms; Leuven/BE
- Plain film criteria: quality of the x-rays  
H. Bosmans; Leuven/BE

## Image Interpretation Quiz

**Saturday, March 5, 14:00–15:30**

Moderator: D. Vanel; Bologna/IT

## Junior Image Interpretation Quiz

**Sunday, March 6, 13:00–14:00**

Moderator: M.M. Thurnher; Vienna/AT

## 4<sup>th</sup> Workstation Face-Off Session

**Friday, March 4, 12:15–13:30**

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

## Standards and Audit

### Professional performance:

### how to be a good radiologist, and show it

**Saturday, March 5, 10:30–12:00**

Moderator: E.J. Adam; London/UK

- How to write a good radiological report  
L.P. Lawler; Dublin/IE
- Structured reporting:  
European perspective  
R. Silverio; Grosseto/IT
- Structured reporting:  
improving the quality of radiology reports  
C.E. Kahn; Milwaukee, WI/US

## Hospital Management Symposium

**Saturday, March 5, 14:00–18:30**

(organised in cooperation with European Hospital)







# Satellite Symposia

**Satellite Symposia  
organised by**

**Bayer Schering Pharma**

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# Update Your Skills

## Practical Courses

### Image-Guided Breast Biopsy: How to do it

#### Coordinator:

M.H. Fuchsjaeger; Vienna/AT

#### Speakers:

I. Schreer; Kiel/DE  
T.H. Helbich; Vienna/AT  
C. Boetes; Maastricht/NL

#### Instructors:

C.S. Balleyguier; Villejuif/FR  
B. Boyer; Paris/FR  
C. Dromain; Villejuif/FR  
R. Gruber; Vienna/AT  
G. Heinz-Peer; Vienna/AT  
A. Malich; Nordhausen/DE  
L. Levy; Paris/FR  
M. Locatelli; Gorizia/IT  
L. Rotenberg; Neuilly-sur-Seine/FR  
B. Szabo; Szeged/HU  
C.F. Weismann; Salzburg/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](http://www.myESR.org)) as of October 1, 2010, and must pay a fee of €50. Important details, including the schedule for the subscribed course, are indicated on the confirmation/invoice. Attendance at the lecture session on Thursday afternoon is mandatory to participate in the pre-registered practical training course.

#### Schedule:

##### Thursday, March 3

SK 123 14:00–15:30 Introductory lectures

##### Friday, March 4

SK 323 08:30–10:00 US guidance  
SK 423 10:30–12:00 Stereotactic guidance  
SK 523 14:00–15:30 MR imaging guidance  
SK 623 16:00–17:30 Stereotactic guidance

##### Saturday, March 5

SK 723 08:30–10:00 US guidance  
SK 823 10:30–12:00 Stereotactic guidance  
SK 923 14:00–15:30 MR imaging guidance  
SK 1023 16:00–17:30 US guidance

##### Sunday, March 6

SK 1123 08:30–10:00 Stereotactic guidance  
SK 1223 10:30–12:00 US guidance  
SK 1323 14:00–15:30 MR imaging guidance  
SK 1423 16:00–17:30 MR imaging guidance

### Musculoskeletal US: Shoulder and elbow

#### 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:

N. Boutry; Lille/FR  
M. Cohen; Copenhagen/DK  
J. De Rooij; Nijmegen/NL  
A.J. Grainger; Leeds/UK  
A. Klauser; Innsbruck/AT  
C. Martinoli; Genoa/IT  
P. O'Connor; Leeds/UK  
P. Peetrons; Brussels/BE  
M. Reijnierse; Leiden/NL  
E. Silvestri; Genoa/IT

#### Registration:

The number of participants for each course is restricted. Participants need to register in advance for the practical training courses ([www.myESR.org](http://www.myESR.org)) as of October 1, 2010, and must pay a fee of €50. Important details, including the schedule for the subscribed course, are indicated on the confirmation/invoice. It is recommended that non-experienced users follow the introductory lectures before entering the practical training course.

#### Schedule:

##### Friday, March 4

SK 324 08:30–10:00 Introductory lectures  
SK 424 10:30–12:30 Shoulder and elbow  
SK 524 14:00–16:00 Shoulder and elbow

##### Saturday, March 5

SK 824 10:30–12:30 Shoulder and elbow



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# List of Dignitaries

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Martine Rémy-Jardin

Lille/FR, *Gold Medallist*

Ralph Weissleder

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Chicago, IL/US, **Honorary Lecturer**

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Gif-sur-Yvette/FR, **Opening Lecturer**

José Cáceres

Barcelona/ES, **Honorary Lecturer**

Marc Ghysels

Brussels/BE, **Guest Lecturer**

Majda M. Thurnher

Vienna/AT, **Honorary Lecturer**



The Rape of Lucretia  
by Benjamin Britten

La sonnambula  
by Vincenzo Bellini

# Opera

Madama Butterfly  
by Giacomo Puccini





Ariadne auf Naxos  
by Richard Strauss

Aida  
by Giuseppe Verdi

# *in Vienna*

Gianni Schicchi  
by Giacomo Puccini

Die Zauberflöte (The Magic Flute)  
by Wolfgang Amadeus Mozart

Carmen  
by Georges Bizet







Avant-garde at  
the Secession

# *Fine Arts*


Contemporary art at  
the Kunsthalle

Baroque at  
the Kunsthistorisches Museum

Renaissance at  
the Liechtenstein Museum

Applied Arts  
at the MAK





Vienna Actionism at  
the Sammlung Essl

Expressionism at  
the Albertina

# *in Vienna*

Jugendstil at  
the Leopold Museum

Impressionism at  
the Belvedere

Pop Art at  
the MUMOK

Photography at  
the KunstHausWien

Medieval art at  
the Gemäldegalerie

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(March 2010 – March 2011)

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# ECR 2011 Committees

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### Categorical Courses

B. Hamm; Berlin/DE  
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### E<sup>3</sup> – European Excellence in Education:

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

**Foundation Course**  
V. Donoghue; Dublin/IE

### e-Learning

D. Caramella; Pisa/IT  
P. Pokieser; Vienna/AT

### Cases of the Day

R. Hermans; Leuven/BE

### Physics Programme

A. Del Guerra; Pisa/IT

### Image Interpretation Quiz

D. Vanel; Bologna/IT

### Junior Image Interpretation Quiz

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*The ESR would like to thank ESCR for their cooperation on this subcommittee*

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*The ESR would like to thank ESSR for their cooperation on this subcommittee*

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S. Ryan; Dublin/IE  
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## Physics in Radiology

*The ESR would like to thank EFOMP for their cooperation on this subcommittee*

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

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T. Pfammatter; Zurich/CH  
F. Thony; Grenoble/FR



# ECR 2011

## Topic Coordinators

### Categorical Courses

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**KISS (Keep it simple and straightforward):**  
**Musculoskeletal MRI**  
A.M. Davies; Birmingham/UK

**Radiology in Abdominal Emergencies**  
B. Hamm; Berlin/DE  
P. Rogalla; Berlin/DE

**CLICK (Clinical lessons for imaging core knowledge):**  
**Common Clinical Cases**  
A. Palkó; Szeged/HU

### Mini Courses

---

**Organs from A to Z: Pancreas**  
F. Caseiro-Alves; Coimbra/PT

**The Beauty of Basic Knowledge:**  
**Interpretation of the Chest Radiograph**  
J. Cáceres; Barcelona/ES

**Functional Imaging of Tumours: How to do it**  
C.A. Cuénod; Paris/FR

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

### E<sup>3</sup> – European Excellence in Education

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**Foundation Course: Paediatric Radiology**  
V. Donoghue; Dublin/IE

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

### Update Your Skills (Practical Courses)

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**Image-Guided Breast Biopsy: How to do it**  
M.H. Fuchsjäger; Vienna/AT

**Musculoskeletal US: Shoulder and elbow**  
E.G. McNally; Oxford/UK

### 4<sup>th</sup> Workstation Face-Off Session

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



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**March 3–7**

**ECR**  
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European Congress  
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**Paper Abstract  
Submission**

(Oral Presentations)

July 5 – September 18, 2010

The annual meeting of  **myESR.org**

European Society of Radiology