



# **ANNUAL REPORT** 2015

Education in partnership





Education in partnership





























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### **REVIEW 2015**



Dear Colleagues,

On behalf of ESOR, I would like to report on yet another productive and creative year during which ESOR continued to play a leading role in providing complementary radiological education of high standards, both in Europe and worldwide.

During 2015 ESOR has expanded its range of activities by adding new course series and training programmes to its portfolio, to accommodate the ever-evolving needs for radiological education.

The outcomes once more emphasise the importance of establishing a long-term commitment for education in partnership and the value of delivering structured modular and mentored opportunities to learn from exchange.

2015 marked also the completion of nine years of ESOR in action, years of continuous growth in educational activities, tailored to address the needs of thousands of radiologists. During this period ESOR contributed significantly to raising the scientific profile of radiological education and, promoting the importance of subspecialisation as well as introducing fellowships in radiology in Europe. ESOR takes pride in being instrumental in mobilising resources available for radiological education in Europe and worldwide, thus moving forward with an informed body of luminaries, the ESOR community.

This is a fine opportunity for ESOR to express its profound appreciation and gratitude to all its devoted friends, believers in lifelong learning in radiology with whom ESOR has worked together in vision and practice throughout these years: industry, local organisers, lecturers and teachers, heads of departments, mentors and tutors, reference training centres, subspecialties and national societies. Their contribution and support is the backbone of ESOR's success and in fact the most valuable evidence that justifies our existence.

In this report all activities, established and continued or newly introduced during 2015 are presented. You are provided with a snapshot of the educational programmes assigned to more than 1,300 residents, fellows and board-certified radiologists along with a brief description of experiences gained from their participation and interaction.



#### ESOR STEERING COMMITTEE

March 2015 - March 2016

#### Scientific/Educational Director

Nicholas Gourtsoyiannis, Athens/GR

#### **Steering Committee Members**

Maria Argyropoulou, Ioannina/GR Thomas Helbich, Vienna/AT Hans-Ulrich Kauczor, Heidelberg/DE Luis Marti-Bonmati, Valencia/ES Malgorzata Szczerbo-Trojanowska, Lublin/PL

#### **Ex-Officio Members**

**Bernd Hamm,** Berlin/DE 2<sup>nd</sup> vice president of ESR

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Laura Oleaga, Barcelona/ES Chairperson of the Education Committee

**Costin Minoiu,** Bucharest/RO *Representative of RTF* 

Peter Baierl, Vienna/AT Executive Director ESR

Brigitte Lindlbauer, Vienna/AT Administrative Director ESOR

#### **Programme Planning Committee Members**

Minerva Becker, Geneva/CH Regina Beets-Tan, Maastricht/NL Vicky Goh, London/UK Apostolos Karantanas, Heraklion/GR Christian Loewe, Vienna/AT Roberto Pozzi Mucelli, Verona/IT Valentin Sinitsyn, Moscow/RU Christophoros Stoupis, Maennedorf/CH Majda Thurnher, Vienna/AT ESNR European Course of Neuroradiology

Siegfried Trattnig, Vienna/AT ESMRMB School of MRI

Professor Nicholas Gourtsoyiannis ESOR Scientific/Educational Director





Greek:ΓαληνόςLatin:Claudius Galenus of PergamumArabic:Jalinos

Galen was an ancient Greek physician whose teaching was influential all the way up to the Renaissance. His views dominated European medicine for over a thousand years and Galen's work can be seen as building on the Hippocratic theories of the body.

The GALEN courses are scheduled to rotate among representative venues throughout Europe. In terms of content and aim they are structured into foundation courses, focusing on the early years of training and advanced courses, directed at the later years of training and young radiologists. Each programme is structured along the lines of lecture series and interactive case discussions (workshops), assigned to internationally renowned European faculties. In 2015 one foundation and four advanced courses have been organised, covering topics across the modalities reaching a total number of 340 participants.

## **GALEN FOUNDATION COURSE**

One GALEN Foundation Course aimed at residents in their first, second or third year of training in radiology took place in partnership with Bracco and was dedicated to neuroradiology. It was attended by a total of 96 residents from 17 countries.

## GALEN ADVANCED COURSES

The four GALEN Advanced Courses were aimed at residents in their fourth or fifth year of training and/or general radiologists in their early years of practice and took place in partnership with Bracco. The courses were dedicated to topics in cross-sectional imaging (cardio-thoracic, women's, paediatric and oncologic imaging) and were attended by 244 doctors from 39 countries.



# GALEN FOUNDATION Course

#### LEVEL I+II

## NEURORADIOLOGY

June 25-27, 2015 Saint Petersburg/Russia

Local Organiser:

T. Trofimova Saint Petersburg/RU

#### **Topics and Faculty:**

**CT perfusion of the brain** I. Pronin, Moscow/RU

**Dementia: role of MRI** N. Ananyeva, Saint Petersburg/RU

MRI monitoring of cerebral gliomas after surgery and adjuvant therapy T. Trofimova, Saint Petersburg/RU

Pattern recognition in neuroradiology L. Van den Hauwe, Antwerp/BE

MRI of the brain: why, how, when R. Gasparotti, Brescia/IT

**Congenital abnormalities of the brain** M. Argyropoulou, Ioannina/GR

**Brain injury** P.M. Parizel, Antwerp/BE

**CNS malignancies** Y. Özsunar, Aydin/TR

**CNS infections** S. Karampekios, Heraklion/GR **Ring-like enhancing lesions** M. Thurnher, Vienna/AT

White matter diseases M. Thurnher, Vienna/AT

**Stroke: diagnosis and therapy** P. Vilela, Lisbon/PT

#### Number of participants: 96

**Country statistics:** Austria 1, Belgium 1, India 1, Italy 2, Jordan 1, Latvia 1, Lithuania 1, Macedonia 2, Netherlands 1, Russian Federation 47, Slovakia 3, Spain 2, Sweden 2, Switzerland 2, Turkey 27, United Arab Emirates 1, United States of America 1

## EUROPEAN SCHOOL OF RADIOLOGY

# **GALEN ADVANCED** Courses

#### LEVEL II

## CARDIO-THORACIC CROSS-SECTIONAL IMAGING

May 7-8, 2015 Bucharest/Romania

Local Organiser:

I. Lupescu Bucharest/RO

#### **Topics and Faculty:**

**My top 5 cardiac MR indications** M. Francone, Rome/IT

Most important cardiac MRI protocols A. de Roos, Leiden/NL

CT diagnosis/rule out of stable coronary heart disease V. Sinitsyn, Moscow/RU

Diagnosis of coronary heart disease beyond stenosis detection: imaging the ischemic myocardium (CT/ MR) M. Francone, Rome/IT

Non ischemic cardiomyopathies A. de Roos, Leiden/NL

My top 5 cardiac CT indications C. Loewe, Vienna/AT

State of the art CT cardiac imaging protocols H. Alkadhi, Zurich/CH

Valvular heart disease H. Alkadhi, Zurich/CH

**Congenital heart disease in children and adults** A. Madureira, Porto/PT

Current and future role of imaging in acute chest pain (CT/MRI) C. Loewe, Vienna/AT

Imaging of pulmonary embolism and pulmonary hypertension

N.J. Screaton, Cambridge/UK

HRCT of interstitial lung diseases A. Larici, Rome/IT

Management of intrapulmonary nodules H. Prosch, Vienna/AT

#### Number of participants: 64

**Country statistics:** Belgium 4, Estonia 1, Greece 1, Republic of Korea 1, Republic of Kosovo 1, Latvia 1, Poland 2, Romania 46, Switzerland 3, Turkey 1, United Arab Emirates 1, United Kingdom 1, United States of America 1

4



# GALEN ADVANCED Courses

#### LEVEL II

## WOMEN'S IMAGING

May 28–29, 2015 Zagreb/Croatia

#### Local Organiser:

B. Brkljačić Zagreb/HR

#### **Topics and Faculty:**

**Pelvic inflammatory disorders** R. Forstner, Salzburg/AT

**Evaluation of the indeterminate ovarian mass** I. Thomassin-Naggara, Paris/FR

**Cervical cancer: staging and detection of recurrence** F. Collettini, Berlin/DE

Diffusion weighted imaging and dynamic contrast enhancement in predicting response to chemoradiotherapy in patients with cervical cancer A. Sahdev, London/UK

Update on breast screening mammography E. Azavedo, Stockholm/SE

Update on advanced breast ultrasound including elastography A. Mundinger, Osnabruck/DE

Imaging, biology and management of ovarian cancer: unravelling pathways to surgery H. Hricak, New York/US **Digital breast tomosynthesis** M. Bernathova, Vienna/AT

MRI of the breast: state of the art M.H. Fuchsjäger, Graz/AT

Imaging and management of the axilla P. Britton, Cambridge/UK

Imaging of the postoperative breast B. Brkljačić, Zagreb/HR

### Number of participants: 69

**Country statistics:** Australia 2, Austria 1, Belgium 1, Bosnia and Herzegovina 11, Bulgaria 2, Croatia 31, Germany 4, Hong Kong 1, Latvia 2, Macedonia 1, Poland 3, Romania 1, Serbia 3, Slovakia 5, Slovenia 1

## EUROPEAN SCHOOL OF RADIOLOGY

# **GALEN ADVANCED** Courses

#### LEVEL II

## PAEDIATRIC IMAGING

September 17–18, 2015 Kayseri/Turkey

Local Organiser:

A. Coskun Kayseri/TR

#### **Topics and Faculty:**

Advances in CNS imaging in childhood M. Argyropoulou, Ioannina/GR

Applications of brain MR spectroscopy in children J.F. Schneider, Basel/CH

Imaging the temporal bone in children E. Vázquez, Barcelona/ES

Advances in imaging interstitial lung disease I. Barber, Barcelona/ES

New perspectives in imaging urinary system in childhood C. Granata, Genoa/IT

Updates of imaging in paediatric oncology F.W. Hirsch, Leipzig/DE

Updates and challenges in imaging inflammatory and infectious skeletal disorders in childhood M. Alison, Paris/FR

Advances in bowel imaging in children M. Raissaki, Heraklion/GR

Imaging in child abuse C. Adamsbaum, Paris/FR

#### Number of participants: 41

6

**Country statistics:** Austria 1, Germany 1, Hungary 1, Latvia 1, Lebanon 1, Pakistan 1, Saudi Arabia 1, Turkey 34



# GALEN ADVANCED Courses

#### LEVEL II+III

## **ONCOLOGIC IMAGING**

October 29–30, 2015 Lisbon/Portugal

Local Organiser:

C. Matos Lisbon/PT

#### **Topics and Faculty:**

Strategies, controversies and opportunities in imaging cancer L. Marti-Bonmati, Valencia/ES

Imaging for radiotherapy C. Greco, Lisbon/PT

New trends, challenges and management: Head and neck cancer A. Borges, Lisbon/PT

New trends, challenges and management: Breast cancer T. Helbich, Vienna/AT

New trends, challenges and management: Lung cancer P. Flechsig, Heidelberg/DE

Body diffusion-weighted imaging: from ADC to kurtosis N. Papanikolaou, Heraklion/GR

New trends, challenges and management: Liver-HCC F. Caseiro Alves, Coimbra/PT

New trends, challenges and management: Liver metastases V. Vilgrain, Clichy/FR

#### Number of participants: 70

**Country statistics:** Australia 1, Azerbaijan 1, Colombia 1, Croatia 1, Finland 1, France 3, Germany 1, Lithuania 1, Netherlands 3, Norway 1, Poland 8, Portugal 10, Romania 4, Russian Federation 2, Saudi Arabia 1, Slovakia 2, Slovenia 3, Spain 1, Sweden 2, Turkey 22, United States of America 1 New trends, challenges and management: Pancreatic cancer C. Matos, Lisbon/PT

New trends, challenges and management: Ovarian cancer R. Forstner, Salzburg/AT

New trends, challenges and management: Rectal cancer L. Curvo-Semedo, Coimbra/PT

New trends, challenges and management: Prostate cancer J. Futterer, Nijmegen/NL

Whole body MR imaging and DWI: clinical applications in oncology D.-M. Koh, London/UK

Measurement of treatment response: current criteria and their limitations M. Laniado, Dresden/DE

Measurement of treatment response: functional imaging biomarkers and their potential V. Goh, London/UK





Greek:ἈσκληπιόςLatin:Aesculapius

Asklepios (or Asclepius) was the God of Medicine and reputed ancestor of the Asklepiades, the ancient Greek doctors' guild.

Asklepios represents the healing aspect of medical arts. He had four daughters: Aglaa/Agle, goddess of natural beauty and fitness, Hygieia, goddess of disease prevention, Panacea, goddess of healing (literally, "all-healing"), and also, goddess of recuperation from illness.

Healing temples and "sancturies" called Asclepieia became increasingly popular around 300 BC where pilgrims flocked to Asclepieia to be healed. Asclepius' most famous sanctuary was in Epidaurus. Another famous "asclepieion" was on the island of Kos where Hippocrates, the legendary Father of Medicine, is said to have begun his career. Asklepios statues may be recognised by the presence of serpents.

### **ASKLEPIOS COURSES IN EUROPE**

This year's programme included three ASKLEPIOS courses, which were tailored to address recognised needs and were held in Europe. Content-wise these were very diverse and aimed, in particular, at general radiologists and private practitioners.

For the first time this year, an ESOR course on "Oncologic Imaging" was held in partnership with Lancet. This course took place in Sochi/Russia and was attended by 59 radiologists from Russia and CIS countries.

The long-term partnership with Affidea was continued with one ASKLEPIOS Multimodality Course organised in Geneva/Switzerland, attended by 41 participants from 16 countries.

After three successful courses in 2012, 2013 and 2014, ESOR again jointly with the European Society for Radiotherapy and Oncology (ESTRO) delivered a multidisciplinary course aimed at radiologists, radiation-oncologists and surgeons. The course took place in Brussels/ Belgium and was held under the title "Multidisciplinary Approach to Cancer Imaging". It was attended by 34 participants from 19 countries.

8



# ASKLEPIOS Courses

#### LEVEL I+II

## **ONCOLOGIC IMAGING**

May 14–15, 2015 Sochi/Russia

#### Local Organiser:

I. Tyurin Moscow/RU

#### **Topics and Faculty:**

Challenges in head and neck cancer imaging R. Maroldi, Brescia/IT

Characterisation and management of solitary pulmonary nodules I. Tyurin, Moscow/RU

Diagnostic challenges in primary liver cancer imaging C. Bartolozzi, Pisa/IT

Imaging cystic pancreatic tumours: detection and characterisation A. Filippone, Chieti/IT

CT and MR imaging of small renal tumours: pearls and pitfalls V. Sinitsyn, Moscow/RU

**Primary small intestinal malignancies:** radiologic pathologic correlations N. Gourtsoyiannis, Athens/GR

MR imaging of prostate cancer H.-P. Schlemmer, Heidelberg/DE

**CT colonography for colon cancer** D. Regge, Candiolo/IT

MR imaging of bone tumours K. Verstraete, Gent/BE

Number of participants: 59 Country statistics: Armenia 1, Australia 1, Kazakhstan 2, Russian Federation 55



# ASKLEPIOS Courses

### LEVEL II

## MULTIMODALITY COURSE

October 1–2, 2015 Geneva/Switzerland

Local Organiser: M. Becker

M. Becker Geneva/CH

#### **Topics and Faculty:**

Advanced MRI techniques in neuroradiology S. Bisdas, Tuebingen/DE

Multimodality imaging of stroke K.-O. Lovblad, Geneva/CH

Multimodality imaging of head and neck cancer M. Becker, Geneva/CH

Multimodality imaging of the paranasal sinuses C. Czerny, Vienna/AT

Whole body MR imaging and DWI: clinical applications V. Vandecaveye, Leuven/BE

MR imaging of the heart: why, how, when M. Gutberlet, Leipzig/DE

Imaging thoracic infectious diseases C.P. Heussel, Heidelberg/DE

Advanced abdominal MR imaging protocols for the oncologic patient N. Papanikolaou, Heraklion/GR

MR imaging of the kidneys O. Benjaminov, Tel Aviv/IL

#### Number of participants: 41

**Country statistics:** Bulgaria 2, Czech Republic 1, France 1, Greece 2, Hungary 3, Ireland 1, Italy 1, Lithuania 4, Portugal 4, Romania 8, Russian Federation 1, Saudi Arabia 1, Slovenia 1, Switzerland 8, Turkey 2, United States of America 1

# ASKLEPIOS Courses

#### LEVEL III

## MULTIDISCIPLINARY APPROACH TO CANCER IMAGING

October 15–17, 2015 Brussels/Belgium

#### Local Organiser:

R. Beets-Tan Maastricht/NL

#### Topics and Faculty:

Introduction: aim and methodology of the course R. Beets-Tan, Maastricht/NL V. Valentini, Rome/IT

Imaging technology in radiology and radiotherapy: protocols that matter Imaging technology in radiotherapy for radiologists Basic principle in radiation technology V. Valentini, Rome/IT

Imaging technology in radiology and radiotherapy: protocols that matter Imaging technology in radiotherapy for radiologists Clinical application D. Zips, Tuebingen/DE

Imaging technology in radiology and radiotherapy: protocols that matter Imaging technology in radiology for radiotherapists Basic principle in MR technology N. Papanikolaou, Heraklion/GR

Imaging technology in radiology and radiotherapy: protocols that matter Imaging technology in radiology for radiotherapists Clinical application M. Lahaye, Amsterdam/NL

#### Number of participants: 34

**Country statistics:** Austria 1, Belgium 9, Bulgaria 1, Canada 2, Egypt 1, France 1, Germany 2, Greece 1, Republic of Korea 1, New Zealand 1, Philippines 1, Poland 2, Portugal 1, Sweden 2, Switzerland 2, Netherlands 2, Turkey 2, United Kingdom 1, United States of America 1 Imaging technology in radiology and radiotherapy: protocols that matter Radiation technology for radiotherapists V. Valentini, Rome/IT

Imaging technology in radiology and radiotherapy: protocols that matter MR physics for radiologists N. Papanikolaou, Heraklion/GR

Node positive non-small cell lung cancer (NSCLC) Staging with imaging C. Schaefer-Prokop, Amersfoort/NL

How to manage treatment Surgery S. Margaritora, Rome/IT

How to manage treatment Radiotherapy D. Zips, Tuebingen/DE

**Liver - borderline resectable colorectal liver metastases CT and MRI of liver tumours** M. Karcaaltincaba, Ankara/TR

Liver - borderline resectable colorectal liver metastases How to manage treatment - invasive and non-invasive C. Dejong, Maastricht/NL

Liver - borderline resectable colorectal liver metastases How to manage treatment - radiation and systemic G. Lammering, Bonn/DE

Pancreas - borderline resectable pancreatic cancer CT and MRI of pancreatic tumours G. Brancatelli, Palermo/IT

Pancreas - borderline resectable pancreatic cancer How to manage treatment C. Dejong, Maastricht/NL

Rectal cancer How to manage treatment - surgery C. van de Velde, Leiden/NL

Rectal cancer How to manage treatment - radiation treatment V. Valentini, Rome/IT

**Rectal cancer MRI of rectal cancer** R. Beets-Tan, Maastricht/NL



## VISITING PROFESSORSHIP Programme Bulgaria within the ESR Support Initiative

This Visiting Professorship Programme was organised within the frame of the ESR Support Initiative. This project, launched and announced in November 2014, aims to improve access to radiological training and educational resources for aspiring physicians and scientists in less affluent regions in Europe, with the goal of ensuring better healthcare for future generations in those regions. In 2015, Bulgaria was selected by the ESR Board of Directors as the first country of this initiative.

The professorship was aimed at senior residents, board-certified radiologists and fellows interested in abdominal oncologic imaging. It was designed as an intense oneday programme, directly linked to the Bulgarian Congress of Radiology, as part of the ESR Support Initiative. A particular focus was on the applications of the latest imaging techniques, diagnostic criteria and staging principles of esophageal, biliary, pancreatic and rectal neoplasms. Renowned European experts ensured a high quality teaching programme, combining lectures and workshops, allowing for interactive case discussions.

## **ABDOMINAL IMAGING**

Date and Venue:

(65 participants)

Local Organiser: N. Traikova, Plovdiv/BG

September 24, Plovdiv/BG

#### **Topics and Faculty:**

Structured reporting of esophageal and GOJ neoplasms S. Jackson, Plymouth/UK

Imaging of hilar and peripheral cholangiocarcinomas O. Lucidarme, Paris/FR

Solid and cystic pancreatic tumours: radiologic, pathologic correlations C. Triantopoulou, Athens/GR

**Resectability of pancreatic cancer: new definitions and the value of MDCTA** C. Triantopoulou, Athens/GR

**CEUS in abdominal oncologic imaging** O. Lucidarme, Paris/FR

MR Imaging of rectal cancer: how, when and why S. Jackson, Plymouth/UK

12







## Visiting Seminars in Asia **AIMS** Advanced Imaging Multimodality Seminars

This year's Advanced Imaging Multimodality Seminar (AIMS) was organised jointly with the Korean Society of Radiology (KSR) and was supported by Bracco.

AIMS seminars are aimed at board-certified radiologists and specialists. They are organ- or subspecialty oriented, focused on the most recent diagnostic advances available and offer ample opportunities to share and exchange scientific knowledge and expertise.

The seminar on "Advanced Cardiac Imaging" took place in Seoul, with joint European and Korean faculties and attracted 53 Korean radiologists.





**AIMS KOREA** 

#### SEMINAR ON ADVANCED CARDIAC IMAGING

#### Date and Venue:

(53 participants)

Local Organiser: Jongming Lee, Seoul/KR

November 21, Seoul/KR

#### **Topics and Faculty:**

Session I: Multimodality Imaging in Ischemic Heart Disease

**Coronary CT angiography** E.J. Chun, Seoul/KR

Perfusion imaging: CT, MR and SPECT/PET K. Nikolaou, Tuebingen/DE

Cardiac MR C. Loewe, Vienna/AT

Session II: Multimodality Imaging in Non-Coronary Disease

Valvular heart disease D.H. Yang, Seoul/KR

Atrial fibrillation H.S. Yong, Seoul/KR

**Cardiomyopathy** M. Francone, Rome/IT



## Visiting Seminars in Latin America **AIMS** Advanced Imaging Multimodality Seminars

After a very successful start of the AIMS Seminars in Brazil in 2012, and the AIMS Seminars in Mexico in 2013, the long-term partnership with Bracco was continued. These features were again realised in partnership with the Brazilian College of Radiology, the Mexican Federation of Radiology (FRMI) and the Mexican Society of Radiology (SMRI). Both the AIMS Seminars in Brazil and in Mexico were aimed at participants from the respective country, in particular last year residents and certified general radiologists or specialists. The seminars in Mexico on "Women's Imaging" took place in Mexico City and Guadalajara and were attended by 100 and 97 participants respectively, a total of 197 participants. The AIMS programme in Brazil was dedicated to "Advanced Neuroimaging" and was hosted in Curitiba and Belo Horizonte with 97 and 82 attendees, summing up to 179 participants.





#### LEVEL II

## AIMS MEXICO

#### SEMINARS ON WOMEN'S IMAGING

#### **Dates and Venues:**

April 15-16, Mexico City/MX April 17-18, Guadalajara/MX

**Local Organisers:** 

A. López Ortiz, Mexico City/MX R. Anguiano Martínez, Aguascalientes/MX

(100 participants)

(97 participants)

B. Gonzáles-Ulloa, Guadalajara/MX

#### **Topics and Faculty:**

**Update on advanced breast ultrasound including elastography** A. Athanasiou, Athens/GR

Digital breast tomosynthesis B. González-Ulloa, Guadalajara/MX

MRI of the breast: state of the art T. Helbich, Vienna/AT

**Clinical challenges in breast MRI** S. Vinnicombe, Dundee/UK

Diagnosis of most common fetal malformations Mexico City: S. Martínez-Cruz, Mexico City/MX Guadalajara: R. Martinez Salinas, Monterrey/MX

Advanced imaging protocols for female pelvis R. Manfredi, Verona/IT

Imaging of ovarian cancer V. Espinoza-Cruz, Mexico City/MX

Cancer of the cervix: primary staging and detection of cancer recurrence A. Rockall, London/UK

**Pitfalls in female imaging** T.M. Cunha, Lisbon/PT

#### LEVEL II+III

### AIMS BRAZIL

#### SEMINARS ON ADVANCED NEUROIMAGING

#### **Dates and Venues:**

August 27-28, Curitiba/BR(97 participants)August 29-30, Belo Horizonte/BR(82 participants)

#### Local Organisers:

H. de Oliveira Mello Neto, Curitiba/BR R. Magalhães Lins, Belo Horizonte/BR L. Costa, Belo Horizonte/BR

#### **Topics and Faculty:**

**Update on multiple sclerosis** E. Papadaki, Heraklion/GR

New concepts in imaging tumours of the spinal canal M. Thurnher, Vienna/AT

**The craniocervical junction revisited** P.M. Parizel, Antwerp/BE

**Congenital malformations of the brain revisited** L. Vedolin, Porto Alegre/BR

Post surgical brain tumour imaging: how to do it and how to interpret it P. Sundgren, Lund/SE

**Stroke mimickers and pitfalls** P. Vilela, Lisbon/PT

New insights into neuroimaging in dementia C. Leite, São Paulo/BR

Vascular imaging of the brain I. Pronin, Moscow/RU

Imaging of epilepsy H. Carrete Juniór, São Paulo/BR



#### LEVEL II

# **ESOR/CIR Joint Course** on the occasion of CIR 2015

In 2015, ESOR took the next step to further strengthen the already existing bond between Latin American and European Radiology. It was a great pleasure for ESOR and the Colegio Interamericano de Radiologia (CIR) to hold a course dedicated to Musculoskeletal Radiology on the occasion of CIR 2015.

This course was aimed at senior residents, board-certified radiologists and fellows in MSK. It was designed to advance the knowledge of an array of indications for musculoskeletal cross-sectional imaging. The programme provided an update on various imaging techniques with an emphasis on MRI. Didactic lectures combined with interactive case discussions highlighted common pathologies in the diagnosis of joints, bones and soft tissue disorders. Internationally renowned European experts had presented the latest technical advances as well as specific imaging strategies to answer clinical questions in musculoskeletal imaging.

## ADVANCED MUSCULOSKELETAL CROSS-SECTIONAL IMAGING

Date and Venue:

June 4-5, Cancún/MX

(92 participants)

Local Organiser: A. Burdiles, Santiago/CL

#### **Topics and Faculty:**

**Hip impingement syndromes: normal vs. abnormal** R. Restrepo, Medellin/CO

Imaging of the cartilage S. Trattnig, Vienna/AT

MRI of bone marrow A. Karantanas, Heraklion/GR

MRI of the rotator cuff: what the clinician needs U. Aydingoz, Ankara/TR

MRI of the wrist G. Azulay, Buenos Aires/AR

MRI of the postoperative knee A. Burdiles, Santiago/CL

Sports injuries M. Maas, Amsterdam/NL

Bone tumours: old and new MRI techniques

K. Verstraete, Gent/BE

Soft tissue tumours F. Vanhoenacker, Antwerp/BE



## VISITING PROFESSORSHIP Programme Colombia

This Visiting Professorship Programme was aimed at senior residents, board-certified radiologists and fellows interested in MR imaging of the abdomen. It was designed as an intense one-day programme. Emphasis laid on state-of-the-art MR applications and diagnosing liver, pancreatic and small bowel diseases.

Renowned European lecturers ensured a high quality teaching programme combining lectures and workshops, allowing for interactive case discussions. The course in Cartagena was directly linked to the Colombian Congress of Radiology, while the course in Bogotà was held at the new ESR Latin America Office.

(90 participants)

(22 participants)

## **ABDOMINAL IMAGING**

#### **Dates and Venues:**

August 5, Cartagena/CO August 9, Bogotà/CO

#### **Local Organisers:**

A.M. Granados, Cali/CO F. Lubinus, Bucaramanga/CO

#### **Topics and Faculty:**

MR imaging of focal liver lesions L. Marti-Bonmati, Valencia/ES

MR imaging of the pancreas: an update C. Matos, Lisbon/PT

MR enteroclysis of the small bowel: stat of the art N. Gourtsoyiannis, Athens/GR

MR imaging of diffuse hepatic parenchymal disease and HCC L. Marti-Bonmati, Valencia/ES

Clinical applications of diffusion-weighted imaging and MR perfusion studies in the abdomen C. Matos, Lisbon/PT

Most common primary malignancies of the small bowel: radiologic pathologic correlations N. Gourtsoyiannis, Athens/GR



# TUTORIALS

In 2015, two ESOR Tutorials were organised in Astana/Kazakhstan and Graz/Austria.

The ESOR Astana Tutorial was organised by the National Research Cardiac Surgery Centre in Astana under the chairmanship of Dr. T. Dautov and supported by an unrestricted grant by Siemens Healthcare. For two weeks, 15 participants were offered practical and theoretical knowledge and the opportunity to be integrated in the activities of an academic department of radiology. The tutorial comprised lectures on a variety of topics, covering modern diagnostic and interventional radiology. Mentored hands-on workshops in ultrasound, CT and MRI were also included. The ESOR Astana Tutorial was aimed at radiologists from Central Asia, including Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.

The ESOR Graz Tutorial was organised by the Medical University Graz under the chairmanship of Prof. M. Fuchsjäger and supported by an unrestricted grant by Mallinckrodt. The aim of the tutorial was to further the experience of young radiologists, residents in their last year of training and board-certified radiologists, in daily radiological practice through intense teaching and exchange in a European reference centre. The participants, five Russian radiologists, were offered one week of practical and theoretical knowledge and the opportunity to be integrated in the activities of an academic department of radiology.





## **ESMRMB** School of MRI

With its motto 'Education in Partnership', the ESR's European School of Radiology (ESOR) has built up a network of quality assured European educational programmes, including a partnership with the School of MRI of the European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), avoiding unnecessary competition and providing better educational opportunities within the radiological community. The ESMRMB School of MRI programme is targeted at physicians and technicians/radiographers and offers advanced clinical courses in the field of MRI. The courses offer the opportunity to enhance knowledge and to get prepared for the need of modern daily MR business. 50% of the total teaching time is used for repetition sessions in small groups in order to intensify the learning experience.

In 2015 eleven School of MRI courses took place, with approximately 500 participants from 50 different countries. Thanks to the continuing commitment of the organisers and speakers, the ESMRMB held 149 courses since the year 2000.

The cooperation between ESOR and the ESMRMB School of MRI has been of high value to both and is therefore being continued.

#### Course

Course	Venue	Date	Participants
Advanced Head & Neck MR Imaging	Vienna/AT	April 9–11	28
Clinical fMRI & DTI - Theory and Practice	Basel/CH	May 7-9	33
Advanced MR Imaging of the Musculoskeletal System	Porto/PT	May 21-23	72
Advanced MR Imaging of the Abdomen	Verona/IT	September 3-5	69
Advanced Cardiac MR Imaging	Paris/FR	September 10-12	32
Advanced MR Imaging in Paediatric Radiology	Marseille/FR	September 17-19	43
Advanced Breast & Female Pelvis MR Imaging	Rome/IT	October 22–24	66
Advanced MR Imaging of the Musculoskeletal System - Spanish language	Alcorcón/ES	November 5-7	90
MR Safety	Lund/SE	November 19–21	45



# FURTHER ACTIVITIES

## CONTRIBUTION TO "ESR EDUCATION ON DEMAND"

ESOR is contributing to the ESR Education on Demand platform with several online courses, which have the goal to offer radiologists high-quality teaching from home. In 2015, over 20 online courses were available on the ESR Education on Demand platform, all of which included e-learning content in the form of recorded lectures with presentation material.

## PARTNERSHIPS WITH THE EUROPEAN SOCIETY OF NEURORADIOLOGY, DIAGNOSTIC AND INTERVENTIONAL (ESNR)

The ESNR and its European Courses of diagnostic and interventional Neuroradiology (ECNR) continued its 13<sup>th</sup> cycle with a course held in spring on "CNS tumours" with 309 participants from 46 countries and an autumn course on "vascular diseases", which attracted 311 attendees from 47 countries.





# VISITING SCHOLARSHIP PROGRAMMES EXCHANGE PROGRAMMES FOR FELLOWSHIPS ONE-YEAR FELLOWSHIPS

## VISITING SCHOLARSHIP PROGRAMMES

In 2015, 33 places were available in Europe with the support of Bracco, the ESR and the Spanish Foundation of Radiology. Two of these scholarships were offered to Bulgarian residents within the ESR Support Initiative.

Additionally, the Memorial Sloan-Kettering Cancer Center (MSKCC) in New York and the Case Western Reserve University in Cleveland have continued to support four scholars from Europe by offering an intense training course. Furthermore, one Chinese radiologist again had the opportunity to complete a three-month intense training course in the UK, thanks to a grant supported by the Jo Li Trust.

In total more than 284 residents have applied for the various programmes.

## **EXCHANGE PROGRAMMES FOR FELLOWSHIPS**

In partnership with the European subspecialty societies, 21 junior radiologists had the possibility to pass modular training in their chosen subspecialty. The programmes included abdominal radiology (ESGAR – two trainees), breast radiology (EUSOBI – four trainees), cardiac radiology (ESCR – two trainees), head and neck radiology (ESNR – two trainees), musculoskeletal radiology (ESSR – two trainees), neuroradiology (ESNR – four trainees), paediatric radiology (ESPR – three trainees) and thoracic radiology (ESTI – two trainees). In total 91 young radiologists applied for the various topics.

Additionally, the Memorial Sloan-Kettering Cancer Center (MSKCC) in New York supported two fellows by offering a six-month training programme on breast imaging.

## **ONE-YEAR FELLOWSHIPS**

Throughout the last year, ESOR established a new educational endeavour, the full one-year fellowships. This programme allowed five recently board-certified radiologists to undertake a twelve-month training at some of the most renowned European training centres.

To that end a special word of thanks is due to the highly esteemed academic training centres and tutors, who enabled more than 1900 trainees to apply for these programmes over the last nine years.

myESR.org/esor

# VISITING SCHOLARSHIP PROGRAMMES

My experience



Matthias Benz University Hospital Basel/Switzerland Topic: Oncologic Imaging Training Centre: Memorial Sloan Kettering Cancer Center, New York/USA

The three-month visiting scholarship at Memorial Sloan Kettering Cancer Center in New York provided a terrific opportunity to further advance my knowledge in oncologic imaging both academically and clinically. I was exposed to all aspects of oncologic imaging with a special focus on body MRI and Molecular Imaging. Dr. Evis Sala, Dr. Hebert Alberto and Dr. Wolfgang Weber were outstanding mentors. The clinical observation, lectures/courses, multidisciplinary clinical conferences and self-studies using case review workstations have been invaluable. I was encouraged to participate in and initiate several clinical research projects. My time at MSKCC has been very inspiring and I definitely would not want to miss it!



#### **Gloria Bettini**

Department of Medical, Surgical and Neuro Sciences, Diagnostic Imaging, University of Siena/Italy Topic: Chest Radiology Training Centre: Barts and The London NHS Trust - St. Bartholomew's Hospital, London/United Kingdom

Thanks to the ESOR Visiting Scholarship Programme I had the opportunity to spend three months in the Imaging Department at St. Bartholomew's Hospital, London, United Kingdom. I got involved in all activities of the department including case reporting, teaching sessions as well as attending multidisciplinary and research meetings. This allowed me to see a vast spectrum of cases both in cardiac and lung disease. I would like to take the opportunity to thank Dott. S. Ellis, Z. Aziz, but also F. Pugliese and A. Rossi for their invested time and experience to teach me. I am really grateful to ESOR for giving me this major opportunity.



**Metka Bradač** University Medical Centre Maribor/Slovenia Topic: Breast Imaging Training Centre: University Hospital Jena/Germany

First I would like to thank the ESOR for having enabled me an intensive, highly professional and subspecialized training in breast imaging at the Universitätsklinikum Jena in Germany. I had left for Jena with high expectations, which were later on exceeded by far in all aspects. My tutor Dr. Aimeé Herzog had made such arrangements that I felt welcome from the first moment. During the three-month scholarship I was taking part in breast MRI and ultrasound examinations, performing interventional procedures, profoundly learning how to treat women within the screening programme, participating in staging of patients as well as attending the multidisciplinary meetings. I would like to thank Dr. Aimeé Herzog with all of my heart for having prepared a perfect programme, shared altruistically with me her excellent knowledge of breast imaging and enabled me to collaborate with other doctors as well. I would also like to express my sincere thanks to Dr. Susanne Wurdinger who is a real treasury of breast imaging knowledge and was entirely unselfishly sharing that knowledge with me, encouraging me and proving me that I was able to carry out procedures, even when I had some doubts about that. Knowledge and skills gained during such subspecialized training are invaluable, therefore I am strongly encouraging the other residents to take advantage of the opportunities offered by the ESOR.





#### Sonja Butorac Mother Teresa UHC, Tirana/Albania Topic: Emergency Radiology Training Centre: Policlinico Universitario "Agostino Gemelli", Rome/Italy

My ESOR Emergency Radiology training was a wonderful learning and inspiring experience for me. It provided an excellent opportunity to improve my theoretical and practical skills on emergency radiology. I especially enjoyed my practical instruction on the way of structured reporting, imaging findings, emergency protocols and kept close note of the imaging pearls and tips Professor Danza shared with me, from x-ray to MRI imaging. Moreover, I was given the chance to attend the different MRI, vascular US subsections etc., which provided another great learning setting with wonderful teachers ready to share their knowledge with me. In addition to attending the regular daily multidisciplinary meetings on all sub-specialties of radiology, I was fortunate to attend multiple national and international courses organized right inside the hospital. I am immensely grateful to Prof. Bonomo, his highly-qualified staff and all of the residents who gave their best on a day to day basis in helping to fulfill my needs and in giving me some wonderful new perspectives for a successful everyday practice and research in the field of radiology and especially on emergency radiology.



#### Iztok Caglič

University Medical Centre Maribor/Slovenia Topic: Urogenital Radiology Training Centre: Cambridge University Hospital Trust - Addenbrooke's Hospital, Cambridge/United Kingdom

I am thankful to the ESOR for the unique experience of spending three months at the world renowned Addenbrooke's Hospital in Cambridge. I was given the opportunity to be involved in the daily clinical and research activities in urogenital radiology and I was also involved in all the other activities of the department, which included academic lectures, teaching sessions and multidisciplinary meetings, not only in urogenital imaging but also in other areas. I would like to express profound gratitude to my devoted and inspiring mentor Dr. T. Barrett as well as every other member of the staff especially Dr. Koo, Dr. Addley and Dr. Freeman who made me feel welcome from the first day on, and for sharing their enthusiasm and professional knowledge with me. Training at Addenbrooke's Hospital and living in an academic environment of Cambridge gave to me much more than I ever expected.



#### Adriana Mirela Calin

Emergency County Hospital, Cluj-Napoca/Romania Topic: Abdominal Radiology Training Centre: Innsbruck Medical University, Innsbruck/Austria

I would like to thank ESOR for offering me a three-month scholarship on abdominal imaging at the Innsbruck University Hospital in Austria. It has been a great opportunity to improve my knowledge in abdominal imaging in a highly academic environment with two excellently trained radiology teams. For the first half of my training, I had the chance to work with Dr. Eva Maria Gassner and her team in the emergency department, where I familiarized myself with abdominal emergencies and postoperative cases. The second part of my training focused on oncology cases, in the department lead by Dr. Renate Frank, my second tutor. I had the opportunity to observe modality techniques and protocols and discuss routine clinical cases with the tutors. I also participated in training programs and attended multidisciplinary meetings concerning abdominal imaging. Through this training program I also discovered Innsbruck, the capital of Tirol, a beautiful cozy city with wonderful people and spectacular mountain views. The ESOR scholarship offered me an excellent educational and social experience which will definitely contribute to my future medical career.



#### Réka Csernus

National Institute of Oncology, Budapest/Hungary Topic: Oncologic Imaging Training Centre: Heidelberg University Medical Center and German Cancer Research Center, Heidelberg/Germany

I am very grateful to ESOR and ESR for awarding me this three-month scholarship in oncologic imaging, and thus brought the opportunity for me to be trained in such a respected and acknowledged center as the Diagnostic and Interventional Radiology (DIR) at University of Heidelberg. I was given the opportunity to attend clinical work in various sections of the department, additionally I was enabled to spend a part of my training in the German Cancer Research Center (DKFZ) and in the Thoraxklinik too, thereby I could improve my knowledge in a very wide spectrum regarding oncologic imaging. I was able to familiarize myself and gather experience with the most up-to-date imaging methods and protocols, including the newest hybrid imaging technologies - such as PET-MRI. I also learned a remarkable amount from a large number of interesting and instructive cases, that I could review on a daily basis. During these three months I attended educational lectures, radiology and multi-disciplinary conferences, as well as tumor board meetings on a regular basis, which I found exceptionally educational. I would like to sincerely thank my tutors Prof. H.-U. Kauczor, Prof. H.-P. Schlemmer and Prof. C.-P. Heußel for their help and support and all other radiologists, residents and all the department's staff who welcomed me in a very warm manner. This scholarship was an outstanding opportunity for me to further improve myself both on a professional and personal level which I greatly appreciate.



#### Anna L. Falkowski

University of Basel Hospital, Basel/Switzerland Topic: Musculoskeletal Radiology Training Centre: General Hospital Vienna/Austria

I am very grateful to ESOR for giving me the opportunity for a three-month scholarship in musculoskeletal imaging at the radiology department of the General Hospital in Vienna. During my ESOR fellowship I was able to observe all areas of musculoskeletal imaging and could attend all radiological, multidisciplinary meetings and courses that took place in the department. I could also participate in the field of medical education. I would like to thank ESOR for making this experience possible and all the employees of the radiology department at the AKH, especially my tutor Prof. Dr. Franz Kainberger for making me feel welcome and part of the team.



Bert Geerts Gent University Hospital, Gent/Belgium Topic: Neuroradiology Training Centre: Pitié Salpêtrière University Hospital Paris/France

I am very grateful to the ESOR Committee for awarding me with a unique three-month scholarship at the 'Hôpital Universitaire Pitié Salpêtrière' in Paris. Pitiè Salpêtrière Hospital is a highly recommended academic and specialized center that applies a strong multidisciplinary approach and has a well-known neurodiagnostical, functional and neurointerventional radiology department. During this period, I was able to observe and participate in all areas of neuro- and head and neck radiology. I had the opportunity to attend multidisciplinary meetings, courses, congresses, daily educational seminars and to conduct research. In addition, this scholarship gave me valuable insights into the French culture and language. I would like to express my gratitude to Prof. Dr. Didier Dormont and the entire staff for their enthusiasm, openness in sharing their knowledge and making me feel welcome. Special thanks to Dr. Nadya Pyatigorskaya for the excellent guidance and for involving me in fascinating research projects. These three months were of great value to my professional and personal life experience which will profoundly influence my future career. Merci beaucoup!





#### Mariana-Mirela Gersak

Emergency County Hospital, Cluj Napoca/Romania Topic: Abdominal Radiology Training Centre: Groupe Hospitalier Paris Saint Joseph, Paris/France

The ESOR Abdominal Imaging Scholarship in the Radiology Department of Groupe Hospitalier Paris Saint Joseph was among the best professional experiences I ever had! During the three months I have spent there, I was actively included in all daily activities, including weekly courses and meetings they organized in their department. The highly qualified staff, the state-of-the-art equipment and the various pathology encountered there made this department the perfect place for me to greatly improve my knowledge in Abdominal Imaging. Having Dr. Zins as a tutor was a great honor for me and I am very grateful for the opportunity of him teaching me abdominal imaging. I would like to thank Dr. Zins, Dr. Boulay for everything they taught me and ESOR for giving me this unique opportunity!



#### **Teodor Gheorghiu**

University Center of Iasi – "Sf. Spiridon" Regional Clinical Emergency Hospital, Iasi/Romania Topic: Emergency Radiology Training Centre: University Center of Lille – Calmette Hospital – Department of Cardiothoracic Radiology, Lille/France

As a future emergency radiologist I am highly motivated to learn about state-of-the-art imaging. Furthermore I am specifically interested in newer CT techniques offering high temporal resolution that are required in the field of Thoracic and Cardiovascular imaging. Therefore I am very grateful to ESOR for the exceptional opportunity to spend three months in Lille at the Radiology Department of the Hospital Calmette headed by Prof. Martine Remy-Jardin. It was a great experience that has really changed my perspective on Emergency Radiology but most of all in the field of CT Imaging. I was very impressed by the new scan protocols that were adapted to the patient's morphotype in order to reduce radiation dose while maintaining a high quality image for diagnostic purposes. These specified protocols proved to be particularly well adapted for pregnant women and for pediatric patients. This scholarship was an amazing opportunity to see the inner workings of an elitist radiological center. I was continuously encouraged to find and to pursue what interested me the most and so I was able to satisfy my curiosity.



#### Hidayatullah Hamidi

French Medical Institute for Children, Kabul/Afghanistan Topic: Paediatric Radiology Training Centre: Innsbruck Medical University, Innsbruck/Austria

From a country where radiology as a medical specialty is very young, I really needed such an opportunity to spend some time in a state-of-the-art center in order to enrich my knowledge and experience. Since I knew about the ESOR scholarships in my first year of residency, it was my wish to one day have the chance to get it. Today as I finish my three-month training at Pediatric Radiology in this highly qualified radiology department, I am thankful to ESOR for realizing my dreams. These three months of training gave me the opportunity to improve my knowledge, practice and approach in pediatric radiology. I saw many entities I have only read in books and papers. I also had the chance to visit various parts of this big radiology department and observe how they are practicing. I am really thankful to my tutors: Dr. Gisela Schweigmann, Prof. Kathrin Maurer and Dr. Karin Unsinn for their endeavor to share their knowledge and experience with me. Special thanks to my kind tutor Dr. Gisela Schweigmann who did all her best to make this period more useful for me and had not only concern about my training, but also my daily carriers. Thanks to all my kind Tyrolean hosts for their nice hospitality which I will never forget. I also want to thank my home department, my family and friend for supporting me in this regard. I hope, next year my colleagues have the chance to get benefit of this unique educational opportunity.



#### Elena Inchausti Hospital Donostia/Spain Topic: Abdominal Radiology Training Centre: King's College Hospital, London/United Kingdom

Already from the first week but even more now, when my experience is about to finish I realised how fortunate I was when I got the scholarship to come to King's College Hospital in London. During these three months in abdominal imaging, focused on liver and hepatobiliary, this centre is one of the most specialised European centres in this field, I have been involved in all activities of the department. Attending the multidisciplinary meetings and educational lectures, helped me to improve my diagnostic skills. Besides and from the hand of my tutor Dr. P. Kane and the rest of the hepatobiliary team, I have had the opportunity to get closer to the interventional area which has been an outstanding and inspiring chance to expand my knowledge. Thanks so much to ESOR for giving me this unique opportunity that I will always keep as a lifelong positive experience.



Lovro Kavur KB Merkur, Zagreb/Croatia Topic: Abdominal Radiology Training Centre: Case Western Reserve University, Cleveland/USA

It was a tremendous honour to receive the ESOR Visiting Scholarship and spend three months at the Department of Radiology of the University Hospitals Case Medical Center, Cleveland. During that time, I was able to review a huge variety of different cases with a special focus on abdominal imaging. I have attended resident training sessions, various lectures, and multidisciplinary meetings. This experience significantly improved my knowledge in the field of abdominal radiology, primarily due to the devotion of all the tutors. The environment was very inspiring - enthusiasm and dedication of all the employees reminded me every day I got the unique opportunity to learn in one of the best radiology centres in the world. I would like to thank the Chairman of the Radiology Department, Prof. Pablo Ros, who devoted as much time as possible from his overcrowded schedule to welcome me and selflessly share his knowledge and skills in radiology. It was a great honour to learn from him. Everyone at the centre was very helpful. My mentor, Dr. Dean Nakamoto, gave me a fantastic support. I would also like to take the opportunity to thank Dr. Karin Herrmann, Dr. Raj Paspulati, Dr. John Haaga, Dr. Vikas Gulani, and all other radiologists, fellows and residents for their hospitality and assistance they have provided during my stay in Cleveland. I am very grateful to ESOR for giving me this opportunity to expand and improve my knowledge. I highly recommend this training programme to any resident striving for excellence as this was the most fascinating and unforgettable experience of my academic career.



#### Olga Kucheruk Federal Center of Medicine and Rehabilitation, Moscow/Russia Topic: Abdominal Radiology Training Centre: Hospital Clinic of Barcelona/Spain

The ESOR Visiting Scholarship Programme gave me the great opportunity to spend a unique three-month training period in abdominal imaging at Hospital Clinic of Barcelona. I was very warmly welcomed by Prof. Carmen Ayuso and her team, who provided me with a very high level of teaching and training. I would like to thank all of the department's radiologists, especially the Professors Juan Ramón Ayuso, Mario Pages and Sonia Rodríguez, with whom I spent most of my training time and who shared their professionalism and knowledge with me. During the training period I was able to participate in all available activities of the department, including daily teaching sessions for residents, weekly multi-disciplinary teaching sessions for the whole team and multi-disciplinary meetings twice a week. Thanks to my tutor Prof. Carmen Ayuso I was given the opportunity to be involved in the clinical and research activities of Barcelona Clinic Liver Cancer, the center of excellence in this field. At the invitation of Prof. Ayuso I entered two days multimodality teaching course PATH. This experience made great impact on my professional path. I want to thank again the entire ESOR team for providing me with this exceptional opportunity.





Lazar Lazovic Clinical Center Nis/Serbia Topic: Neuroradiology Training Centre: Barts and The London NHS Trust - St. Bartholomew's Hospital, London/United Kingdom

I am sincerely grateful for the unique opportunity to participate in the ESOR scholarship program of threemonth training at St Bartholomew's Hospital and The Royal London Hospital under the supervision of Dr Jane Evanson and her colleagues Dr Levansri Makalanda and Dr Ken Won. I am positive that this remarkable experience will deeply influence my future work and career. Being fully involved in all the activities of the department, including case reporting, attendance of multidisciplinary meetings, educational lectures and teaching courses as well as observation of many interesting neuro-interventional procedures made me drastically expand my knowledge in endovascular treatment of cerebral aneurism and cerebral and spinal AVM. I am very grateful to all department members who have helped me adopt in fastest possible way to the new environment. I strongly encourage other trainees to participate in this life changing experience.



#### **Rishi Philip Mathew**

Father Muller Medical College, Mangalore, Karnataka/India Topic: Abdominal Imaging Training Centre: University Zurich Hospital, Zurich/Switzerland

I was thrilled and overjoyed when I received a mail in the month of June, 2015 stating that I had been selected for a three month scholarship program in Abdominal Imaging at the prestigious and world famous University Zurich Hospital (UZH) in Switzerland. I commenced my course on August 1st, 2015. The UZH is a well-equipped hospital with 6 MRI machines, 4 CTs and several ultrasound units. I would like to thank Prof. Dr. Hatem Alkadhi and Dr. Caecilia Reiner for integrating me into their busy department and also allowing me to take part in research. Lastly I would like to thank ESOR for providing me with the scholarship, which allowed me to broaden my knowledge in this subspecialty of radiology and also to experience an advanced work environment.



#### **Carmelo Messina**

IRCCS Policlinico San Donato, Milan/Italy Topic: Musculoskeletal Radiology Training Centre: Innsbruck Medical University, Innsbruck/Austria

I would like to thank ESR and ESOR for the opportunity to spend three months at the musculoskeletal radiology department of Innsbruck University Hospital, in the frame of the ESOR Visiting Scholarship Programme. I am very thankful to the head of department, Prof. Werner Jaschke, for his warm welcome. I also want to express my sincere gratitude to my tutors Dr. Gruber, Dr. Loizides, Dr. De Zordo, Dr. Henninger and Dr. Klauser for teaching and sharing their experience and enthusiasm in radiology with me. I was fully involved in all the department's activities as well as several interdisciplinary meetings, with a significant knowledge improvement not only in the field of musculoskeletal radiology. I especially appreciated the days I spent in the Ultrasound department, each one full of interesting and stimulating cases. "Pfiat di" to all the new nice friends and colleagues I met in the Hospital!





VISITING SCHOLARSHIP PROGRAMMES

#### Elena Miglio

La Sapienza, Latina/Italy Topic: Breast Radiology Training Centre: King's College Hospital, London/United Kingdom

I have just finished my breast radiology training. I would like to say thank you to all the ESOR staff for giving me this special and amazing experience not only for my work and knowledge, but also for my life. I found a really wonderful and friendly staff at King's College Hospital. During this time I improved my knowledge and my practice in all the clinical skills and I enjoyed to see another point of view at work.



#### Alvaro Mauricio Morales Vargas

Hospital Universitario La Paz, Madrid/Spain Topic: Emergency Radiology Training Centre: Barts And The London NHS Trust - St. Bartholomew's Hospital, London/United Kingdom

I am very grateful to the ESR/ESOR for awarding me the ESOR visiting scholarship in Emergency Radiology at Royal London Hospital. It has been an extremely rewarding educational opportunity, and the three months of training in this prestigious hospital have been definitely an invaluable experience. I could actively participate in weekly multidisciplinary meetings and teaching sessions and I was welcomed to get involved in daily practice. I would like to express my gratitude especially to my tutor Dr. Susan Cross for her constant support. I also want to thank all the department staff for being so helpful. It was inspiring to work with people who enjoy their work and are willing to share their knowledge even on very busy days.



#### Murat Alp Öztek

Akdeniz Üniversitesi Hastanesi Radyoloji Anabilim Dalı Kampüs, Antalya/Turkey Topic: Head and Neck Radiology Training Centre: Barts And The London NHS Trust - St. Bartholomew's Hospital, London/United Kingdom

ESOR gave me the great opportunity to learn from the head and neck radiology department at St Barts and the Royal London Hospitals in London, where I learned from some of the leading people in the UK and Europe in a very friendly and warm environment. I was involved in all reporting and ultrasound sessions and multidisciplinary meetings. I have seen and discussed a huge number of head and neck cases, gaining lots of experience. Overall, this was a great experience for me. I would like to thank ESOR for the opportunity and the head and neck people at St. Barts for their friendship and efforts! I would recommend this great experience to everyone.





#### Diana Penha Pereira

Hospital Prof. Dr. Fernando Fonseca, Lisbon/Portugal Topic: Cardiac Imaging Training Centre: Liverpool University Hospital NHS Foundation Trust, Liverpool/United Kingdom

The ESOR Visiting Scholarship Programme in Cardiac Imaging, at Liverpool Heart and Chest Hospital was an outstanding and amazing experience. Thanks to this programme and to my outstanding supervisor, Dr. Binukrishnan Sukumaran, I had the opportunity to improve my knowledge of cardiothoracic imaging at a very subspecialized centre that performs a huge number of cardiac evaluations on a daily basis. Not only was I given the chance to learn cardiac CT and MRI, but also to attend several general and sub-specialised multidisciplinary meetings such as cardiomyopathies meetings or TAVI meetings. My scholarship was also complemented with further training in lung pathology taught by Dr. Klaus Irion to whom I am grateful. Furthermore, by the hand of Dr. Binukrishnan Sukumaran, I was given the opportunity to get in contact with a wide range of other thoracic interventional techniques such as EBUS (endobronchial ultrasound and biopsy) and CT guided percutaneous lung biopsies; to attend and participate in several teaching sessions; and I was also encouraged to embrace several research projects focusing on cardiothoracic pathology. I am truly grateful to ESOR and to the LCHC imaging department for this opportunity, which allowed me to expand and enrich my knowledge in cardiothoracic imaging, in one of the most differentiated centres in Europe. These few months have changed the way I face and live cardiothoracic imaging. They have been one of the most unforgettable experiences of my career.



#### **Robin Peters**

University Medical Center Groningen/The Netherlands Topic: Chest Radiology Training Centre: King's College Hospital Foundation Trust, London/United Kingdom

Between October and December 2015 I had the opportunity to spend the ESOR visiting scholarship at the department of Radiology at King's College Hospital in London under the supervision of Dr. Desai and Dr. Walsh. All residents and staff were very welcoming. I was involved in the daily clinical activity in Chest radiology. The training was very well-structured, with sessions of plain film reporting, CT reporting and participating in extremely interesting multidisciplinary meetings four times a week and multiple teaching sessions. I would strongly recommend to all radiology residents to take the chance to apply for this unforgettable experience.



#### Vasileios Rafailidis

AHEPA University General Hospital of Thessaloniki/Greece Topic: Contrast Enhanced Ultrasound Training Centre: King's College Hospital Foundation Trust, London/United Kingdom

I would like to thank ESOR for giving me the opportunity to spend three months of training in contrast enhanced ultrasound at King's College Hospital. During that time, I was given the chance to familiarize myself with a wide range of contrast-enhanced ultrasound examinations along with other highly specialized applications of ultrasound including elastography and ultrasound-guided procedures. Moreover, I attended various multidisciplinary and research meetings as well as teaching sessions, all of which introduced me to a different health system and attitude towards patients. Living and working in a highly academic environment like King's was a unique and inspiring experience which had a strong positive influence on me, both in terms of personality and professionalism. I am profoundly grateful to my tutor Prof. Paul Sidhu for his mentoring, commitment to teaching and sharing of experience. I would also like to thank all the doctors of the department for sharing their knowledge with me and creating a welcoming environment.





Loizos Siakallis Attikon University Hospital Athens/Greece Topic: Neuroradiology Training Centre: Cambridge University Hospital Trust - Addenbrooke's Hospital, Cambridge/United Kingdom

I am grateful to the ESOR for providing me with this unique opportunity to enhance my knowledge and interest in Neuroradiology. During the three-month visiting scholarship period at Addenbrooke's Hospital in Cambridge, I had the opportunity to participate in a wide range of multimodality diagnostic imaging studies, case discussions and multidisciplinary meetings, as well as to observe advanced neurointerventional procedures. The multidisciplinary meetings were of particular interest to me, offering the opportunity to observe interesting and sometimes rare cases from admission to diagnosis and treatment planning and furthermore to appreciate the role of neuroradiology in decision making across different disciplines. In addition, the daily teaching sessions, weekly Neuroscience Grand Rounds and Radiology Forums further enriched the knowledge acquired from everyday work at the department. I would like to thank Professor Gillard and all the members of the neuroradiology team for welcoming me and sharing their knowledge and passion for neuroradiology with me. This has been a wonderful educational experience that will influence my future career choices and I would definitely recommend it to residents in training.



#### Marieta Stoeva

Tokuda Hospital Sofia/Bulgaria Topic: Paediatric Radiology Training Centre: Hospital Universitario Vall d'Hebron, Barcelona/Spain

My three-month training in the Paediatric Radiology Department of Hospital Universitario Vall d'Hebron was a result of the combined efforts of three teams, located in Austria, Spain and Bulgaria. After the initial preparation and excitement, I entered a structured residents' programme on Paediatric Imaging. I also participated in multidisciplinary discussions on a daily basis. I gained useful knowledge on subtle radiology topics and my paediatric diagnostic skills improved greatly in just several weeks. I am especially grateful to Dr. Élida Vázquez, Dr. Joan Carles Carreño, Dr. Ignasi Barber and Dr. Joaquim Piqueras, who invested a lot of their time to teach me and helped me to get accustomed to the Spanish culture. I would also like to thank Dr. Galina Kirova, head of the Radiology Department in Tokuda Hospital, who encouraged me to apply and supported me through the process. The ESOR Visiting Scholarship Programme is a professional and life-changing experience I would recommend to anyone at any time.



#### Frederik Strobl

Ludwig-Maximilians-University Hospital Munich/Germany Topic: Musculoskeletal Radiology Training Centre: King's College Hospital, London/United Kingdom

The ESOR Visiting Scholarship Programme was a unique opportunity for me to spend a three-month training period in the subspecialisation of musculoskeletal radiology at the prestigious King's College Hospital in London, UK. This stay was certainly one of the best experiences of my medical career, both professionally and personally. Under the supervision of my tutor Dr. David Elias I was able to attend and perform MSK ultrasound examinations, to write MRI reports by myself, to assist in interventions and to join various meetings. In addition, it was possible for me to perform a small research project together with Dr. Elias on patients with Sickle Cell Disease and avascular necrosis. The department also made it possible for me to attend a MSK ultrasound and a MSK MRI course with great lectures and hands-on courses from well-known specialists. Overall, thanks to the great teaching of Dr. Elias and all other members of the team, I could broaden my knowledge and interest in MSK radiology a lot. In addition, having the possibility to spend three months in a city like London with all its cultural offers is an outstanding experience. I want to thank Prof. Karani and the whole MSK radiology team, especially Dr. David Elias and Dr. Lisa Meacock, as well as the European School and Society of Radiology for the support and for providing me with this amazing experience.





#### Madalina Brindusa Szep

Emergency County Hospital, Cluj-Napoca/Romania Topic: Breast Imaging Training Centre: Cambridge University Hospital Trust - Addenbrooke's Hospital, Cambridge/United Kingdom

I would like to express my gratitude to ESOR and Addenbrooke's Hospital, Cambridge, UK for awarding me this three-month scholarship in breast imaging. It has been a privilege and an excellent educational opportunity to work with my tutor, Dr. Ruchi Sinnatamby and her colleagues from the breast imaging team. During these three months I participated in clinical and educational activities of the department, which included: daily symptomatic new patient clinic; breast screening discussion; screening assessments; multidisciplinary meetings; breast MRI meeting; as well as interventional procedures (US, stereotactic and MRI biopsies). With no direct patient care responsibilities, I had the possibility to observe clinical activities and counseling of the patients who underwent interventional procedure. In addition, I was able to attend teaching sessions and gastrointestinal radiology courses for registrars. I had the opportunity to attend the Annual Scientific Meeting of British Society of Breast Radiology in Nottingham, which was a valuable educational event, including imaging peculiarities and research updates relevant to every radiology fellow. I would also like to thank Prof. Fiona Gilbert, Dr. Penny Moyle, Dr Peter Britton and Dr Fleur Kilburn-Toppin for their warm welcome and the willingness to share their knowledge. I also had the opportunity to discover Cambridge, an amazing city where I spent wonderful moments with beautiful people. This scholarship provided me with an excellent educational and social experience which I greatly appreciate.



#### Francesca Tona

Policlinico Umberto I, Rome/Italy Topic: Neuroradiology Training Centre: The National Hospital of Neurology and Neurosurgery UCLH Foundation Trust, London/United Kingdom

Thanks to the ESOR Visiting Scholarship Programme I had the privilege to come to Queen Square at the National Hospital for Neurology and Neurosurgery, one of the most highly esteemed academic training centres in Europe in the field of neuroscience. During these three months, I had the opportunity to get to know another training environment and to increase my interest for Neuroradiology, taking part in the core knowledge training programme through meetings, lectures and teaching on routine clinical cases, led by my tutor Dr. Indran Davagnanam. I would also like to express my gratitude to the head of department, Prof. Tarek Yousry for welcoming me in his department. The ESOR scholarship has been an amazing experience. I will recommend to any resident to apply for the ESOR programme.



**Lora Tsvetkova** Military Medical Academy, Sofia/Bulgaria Topic: Abdominal Imaging Training Centre: Diagnostic Imaging Department, Städtisches Klinikum Karlsruhe/Germany

The ESOR Visiting Scholarship gave me the unique opportunity to be trained in such a respected and acknowledged center as is the Diagnostic Imaging Department, Karlsruhe/Germany, under the supervision of Dr. D. Wollschläger, my Tutor and Prof. P. Reimer, Head of Department. I am realy grateful to ESOR and ESR for this opportunity, great educational experience and privilege to be part of an excellent radiology team. During this educational period i was fully involved in all activities of the Department - educational lectures, case reporting and attendance to multidisciplinary meetings. I would like to thank all Department members who were very nice and made my stay comfortable and useful. I also would like to express my deep gratitude to Dr. Sebastian Arnold for all neuroimaging and MRI knowledge that I get, and it was a real privilege to meet such an inspiring teacher. This program will definitely make an influence to my future career and make me a better radiologist.





VISITING SCHOLARSHIP PROGRAMMES

#### Tom Verstraeten

Gent University Hospital, Gent/Belgium Topic: Musculoskeletal Radiology Training Centre: University Clinic Heidelberg/Germany

I am very grateful to the ESOR Visiting Scholarship Programme for this opportunity. This three-month training in the musculoskeletal department of Heidelberg is such an incredible experience that it will deeply influence my future work and career. This is all thanks to my tutors Prof. Dr. Marc-André Weber, Dr. Daniel Spira and Dr. Christoph Rehnitz. They and the whole team in Heidelberg made me feel real welcome and part of the team. The high level of expertise and the possibility to participate in all fields of musculoskeletal imaging (including interventional techniques) have made that this scholarship has fulfilled all my expectations.



#### Ainhoa Viteri Hospital Universitario Basurto, Bilbao/Spain Topic: Oncologic Imaging

Training Centre: Memorial Sloan Kettering Cancer Center, New York/USA

I am very grateful to the ESOR and the MSKCC for this outstanding learning opportunity. This scholarship is revealing itself as the most mind-opening experience in my career. This program has a strong research focus: I am taking part in several research projects where I can learn firsthand from the leading researchers in oncologic imaging, and I attend the enlightening research seminars from the Sloan Kettering Institute. Besides, I am expanding my knowledge from a clinical perspective: I learn from the attending radiologists in the reading rooms and I attend to the lectures at the Radiology Department and the multidisciplinary meetings of the Disease Management Teams. MSKCC is an optimistic and fertile environment, which I am enjoying, surrounded by creative people that develop new ideas into cutting edge cancer patients' care. Thanks Professor Hricak, Professor Panicek and the rest of the Radiology Department. My time with you is proving to be very enriching!



#### Rui Wang

Anzhen Hospital, Captial Medical University, Beijing/China Topic: Chest/Cardiovascular Imaging Training Centre: University Hospital Birmingham - Queen Elizabeth Medical Centre, Birmingham/United Kingdom

Many thanks to ESOR for giving me this chance to train in the Queen Elizabeth hospital, I appreciate that. I believe that my motivation for applying for this programme is achieved; I believe that the training is a good chance for every Chinese radiologist; I believe that Queen Elizabeth Hospital will continue to provide an excellent training for other foreign scholars. It is very helpful for my work. Moreover, Birmingham is a beautiful and historical city in UK. Many thanks again.





#### Maksim Zagura Tartu University Hospital, Tartu/Estonia Topic: Cardiac Imaging Training Centre: King's College Hospital, London/United Kingdom

I am grateful to ESOR for the great opportunity to spend three months at King's College Hospital in London. During the training I was able to review and interpret a variety of cardiac MRI and CT as well as chest CT scans. Moreover, I have learned several techniques for the assessment of CMR perfusion studies and enhanced my skills in the interpretation of coronary angiograms. I have had a chance to observe transcatheter aortic valve implantation and stress echocardiography procedures. I took part in various multidisciplinary and research meetings. In conclusion, the training at King's College Hospital was efficient and well-organized. I would like to thank Dr. Sujal Desai for the perfect supervision, constant support and sharing his experience with me. I found the training very rewarding and will recommend the ESOR Visiting Scholarship Programme to other radiology residents in Estonia.



## EXCHANGE PROGRAMMES FOR FELLOWSHIPS

My experience

#### Exchange Programme for Abdominal Radiology Fellowship



#### Pál Novák Kaposi

Semmelweis University, Budapest/Hungary Topic: Abdominal Imaging Training Centre: Addenbrooke's Hospital, Cambridge/United Kingdom

EUROPEAN SCHOOL OF RADIOLOGY

I am most grateful to the European School of Radiology for awarding the Exchange Fellowship in abdominal imaging at Addenbrooke's Hospital in Cambridge to me. This fellowship has been an exceptional opportunity to enhance my knowledge of diagnostic radiology. With the mentorship of Prof. Lomas, I could participate in the routine activities of the gastrointestinal imaging unit. I attended reporting sessions with specialists of abdominal radiology in all modalities. I learned about latest advancements in imaging techniques such as hepatic fat fraction measurement and liver elastography. I could observe endoscopic ultrasound procedures and other image guided interventions. Multidisciplinary team discussions dedicated to organ specific diseases were part of the daily routine. This provided me an invaluable insight into the radiologist's role in clinical decision making. My schedule also included regular teaching sessions organized for registrars and fellow trainees on various topics. The social life of the department was vibrant. I was able to participate in many of the community events, and enjoyed the rich cultural traditions. I thank ESOR/ESGAR again for the opportunity to update my expertise in a highly specialized, top-tier medical center. The experience provides inspiration for my future endeavours to achieve excellence in radiology.



#### Binit Sureka

Institute of Liver & Biliary Sciences, New Delhi/India Topic: Abdominal Radiology Training Centre: University of Verona/Italy

I am extremely thankful to ESOR for granting me this great learning opportunity for three months for the Abdominal Radiology Fellowship at University of Verona, Italy. During my writing of this report, it has been about two weeks since I have joined the Department in October 2015. The head of the Department Prof. Roberto Pozzi Mucelli and my mentor Prof. Mirko D'Onofrio are extremely helpful and no words can explain my gratitude towards them. I attend the inter-departmental clinical meet sessions, interesting case presentation sessions by the residents and daily postings in various modalities. The centre is a referral centre for pancreatic pathologies. Within two weeks' time I have seen biopsy proven varied spectrum of pancreatic pathologies which have been correlated with all the modalities (CEUS, CT and MRI). Radiological interventions are also of very high standards. Definitely, I would like to recommend choosing Verona as a training centre as the experience is just great. The residents are very helpful and co-operative. My special thanks to Alma Olivieri, Nicolo Cardobi and Lisa.

myESR.org/esor



#### Exchange Programme for Breast Radiology Fellowship



#### Andrea Luparia

Azienda Provinciale Servizi Sanitari (APSS)-U.O. Senologia Clinica e Screening Mammografico, Trento/Italy Topic: Breast Imaging Training Centre: IRCCS Policlinico San Donato/Italy

The ESOR Fellowship Programme at IRCCS Policlinico San Donato was a great experience and opportunity to expand and improve my radiological knowledge. This Fellowship, focused on Breast Imaging, was intense and fruitful: I was deeply involved in several research projects and in the clinical work. I have been very welcomed to participate in daily routine practice with my tutor and the on-site fellows and residents, as well as in weekly lectures. The ESOR Programme was a truly positive experience for me, from the professional as well as from the personal point of view. I would like to express a special thanks to Prof. Francesco Sardanelli, as well as my tutor, Dr. Luca Carbonaro and all the staff who took a lot of care to ensure that my course was really useful to me. I would finally like to thank ESOR for making this great learning experience possible.



#### Linda Metaxa

St. Bartholomew's Hospital, London/United Kingdom Topic: Breast Imaging Training Centre: Policlinico Uberto I, Rome/Italy

My sincere gratitude to ESOR for another amazing opportunity. This year I was fortunate to be awarded the ESOR/EUSOBI fellowship programme in Breast Imaging at Policlinico Uberto I, in Rome. My tutor Dr. Federica Pediconi informed me about everything. She introduced me to the staff of the clinic and showed me around the facilities. All the team made me feel welcome and part of the breast clinic. I divided my attendance into two sections: clinical care in breast imaging and enhancing my skills in research methodology, engaging in retrospective research, in cooperation with Sapienza University. I had the opportunity to follow daily routine practices in all aspects of breast imaging such as mammograms and tomosynthesis, ultrasound examinations, MRI scans and different type of biopsies, and attend high level weekly multidisciplinary meeting and courses on Breast Imaging and Oncology that held in Sapienza University. I benefited greatly from discussing interesting cases with my tutor Dr. Pediconi and other radiologists, especially Dr. Maria Laura Luciano and I was amazed by their willingness to share their precious time and knowledge with me. The institution has impressive resources that allow trainees to deepen their knowledge, skills and experience in clinical activity and medical research. A lot of scientific trials are running at the moment and I was really fortunate to be involved in some of them, such as the fractal analysis of micro calcifications in mammograms and the research on the DCIS and MRI. Last but not least was the exponential personal growth I received when exploring the eternal city. It is an education like no other. Every corner, every street, every monument has an amazing history and significance.



#### Cennet Şahin

Istanbul Şişli Etfal Education and Research Hospital, Istanbul/Turkey Topic: Breast Radiology Training Centre: Hospital Universitary Vall d'Hebron, Barcelona/Spain

Thanks to ESOR, ESR and EUSOBI for giving me this great opportunity to have such an educative fellowship programme at Breast Radiology Department in Barcelona Vall d'Hebron University Hospital. During this time, I had the chance to see several complicated cases, many interventional techniques and to attend several multidisciplinary meetings in such a breast unit that works as a reference hospital. I would like to thank Dr. Ignacio Miranda Gomez and all the other doctors for their hospitality, warm welcome and willingness to share their knowledge. It will be a great experience for my life and career.



#### Sara Viganò

Fondazione IRCCS Ca' Granda - Ospedale Maggiore Policlinico, Milan/Italy Topic: Breast Imaging Training Centre: Medical University of Vienna/Austria

Thanks to the ESOR/EUSOBI 2015 Exchange Programme for Fellowships I had the unique opportunity to spend three months at the Medical University of Vienna, Austria. Thanks to this excellent educational experience, with a very high level quality of teaching and training, I have managed to improve my knowledge and skills in breast imaging. I got the chance to be involved in daily clinical practice as well as in educational and scientific activities. I had the possibility to discuss challenging and attend very interesting clinical practice comprehensive of all the different breast imaging techniques, multidisciplinary meetings and interesting lectures which enriched this experience. I want especially to thank Prof. Thomas Helbich and his amazing highly qualified and experienced staff, including the residents I have met, radiographer, and colleagues, who made these months extremely useful and interesting and to whom I am very grateful to. Among them: Prof. P. Baltzer, Dr. M. Bernathova, Dr. P. Kapetas, Dr. R. Woitek, as well as Dr. P. Clauser and Dr. M. Marino.



#### Exchange Programme for Breast Imaging Fellowship (USA)



#### Luca Carbonaro

IRCCS Policlinico San Donato, San Donato Milanese/Italy Topic: Breast Imaging Training Centre: Memorial Sloan-Kettering Cancer Center, New York/USA

At MSKCC I had the possibility to observe all the wide spectrum of imaging techniques; the huge number of exams performed amplified the experience I could acquire in few months. Besides the quantity, the quality is constantly maintained by the application of the most careful methodology, whose bases are ACR guidelines and BI-RADS lexicon, and which benefits from up-to-date scientific results. Scheduled daily meetings for all fellows and observers and weekly multidisciplinary meetings are corollary of the teaching activity I could benefit during these months. During this time, I was involved in multiple research projects which may lead to significant and high-quality results (the department publishes 10-20 papers/year on breast imaging in peer-reviewed journals).



#### Lucas Gennaro

Hospital de Clínicas - UFPR, Curitiba/Brazil Topic: Breast Imaging Training Centre: Memorial Sloan-Kettering Cancer Center, New York/USA

The six-month ESOR MSKCC Breast Imaging Fellowship gave me the opportunity to be part of a stateof-the-art breast center team. The program is designed to offer a great overview in breast imaging for screening and diagnosis using mammography, ultrasound, MR Imaging and some emerging modalities such as contrast-enhanced digital mammography (CEDM) and digital breast tomosynthesis (DBT). Daily lectures, conferences and clinical rounds are held to improve the discussion, knowledge and understanding in breast imaging. This fellowship also offered the possibility of developing a great number of clinical projects assisted by a mentor and how to organize and manage a database for continued research.



#### Exchange Programme for Cardiac Radiology Fellowship



#### Tuğba Akinci D'Antonoli

Medipol University, Istanbul/Turkey Topic: Cardiac Radiology Training Centre: CMI-Center for Medical Imaging, University Medical Center Groningen/ The Netherlands

It was a great experience and opportunity to be an exchange fellow in Cardiac Radiology at the CMI-Center for Medical Imaging, University Medical Center Groningen, Netherlands. I am so grateful to ESOR/ESR, ESCR and the founders of this program. CMI-UMCG is not only the biggest academic and clinical center in the north of the Netherlands, it is also a state-of-the-art imaging center with a wide range image archive. I have been participating in cardiac imaging on all modalities, during three months. Also I reviewed several teaching cases in both MRI and CTI. I have attended regular meetings with radiologists and cardiologists at the end of the cardiac imaging days, which was held in English during my stay. Furthermore, I had the chance to take part in research. I believe that being an exchange fellow in Cardiac Radiology has strengthened my knowledge, improved my experience and academic side. I hereby thank my tutors Dr. Rozemarijn Vliegenthart and Dr. Niek Prakken, head of CMI Prof. Dr. Matthijs Oudkerk, Estella Noach, Peter van Ooijen, all PhD students and residents and also all staff of the Radiology Department.



#### Irina Rjabceva

Riga East Clinical University Hospital, Riga/Latvia Topic: Cardiac Radiology Training Centre: CHU la Timone, Marseille/France

My ESOR fellowship in cardiac imaging at La Timone hospital in Marseille started on 01.10.2015 and was an incredible experience. I was able to learn how to read cases and to structure reports of cardiac MRI, cardiac CT and cardiovascular studies, preoperative aortic valve assessment, pre-transplantation and predevice implantation cardiac assessment by MRI. I also had the opportunity to learn the acquisition and study of many cardiac MRI cases such as cardiomyopathies, myocardial infarction, myocarditis, sarcoidosis, amyloidosis, cardiac masses, ARVC and congenital heart diseases. I have participated in multidisciplinary meetings, teaching sessions and I could learn from the CT and MRI archive. This fellowship was profitable from both professional and personal point of view. I have improved my skills in cardiovascular imaging in an excellent hospital with a high professional level and a great team. They made me feel like a member of the team. Living in Marseille and having the opportunity to get to know the different culture was great experience for me. I would like to thank the ESOR and Prof. Alexis Jacquier and his team for making this amazing experience possible.



#### Exchange Programme for Head and Neck Radiology Fellowship



#### Darka Hadnađev Šimonji

Clinical Center of Vojvodina, Novi Sad/Serbia Topic: Head and Neck Radiology Training Centre: University of Study of Brescia/Italy

It was a great honour for me to get a three-month ESR/ESOR/ESHNR fellowship in Head and Neck Radiology, in one of the biggest diagnostic reference centres for Ear-Nose-Throat diseases in Italy. During my stay at Univeristy Hospital of Brescia, at "Radiologia 2" Department, I have been given the opportunity to look, listen and learn from a group of highly experienced radiologists in the field, led by Professor Roberto Maroldi. So far I have followed daily MR and (CB)CT examinations, actively participated in writing reports with residents, and discussed some challenging cases with my tutors, Davide Farina and Marco Ravanelli. Professor Roberto Maroldi has been also willing to share his invaluable knowledge. I have attended weekly multidisciplinary meetings and participated in an academic course (in Radiation Oncology) as well. This fellowship has given me unforgettable educational experience by enabling me to get better perspective of imaging pitfalls that can be decisive for patients.



#### Shashank Sood

Medanta - The Medicity Hospital, Gurgaon/India Topic: Head and Neck Radiology Training Centre: Medical University of Vienna/Austria

I am very thankful to ESOR for awarding me the Head and Neck Radiology fellowship. It was my pleasure to spend three months at the department of musculoskeletal and neuroradiology AKH University Hospital Vienna, Austria. The institution has impressive resources that allow fellows to deepen their clinical knowledge, skills and research. I enrolled myself in daily work including case reporting, reading sessions with residents, attending multidisciplinary meetings, and educational lectures and had the opportunity to see a variety of cases which benefited me in increasing my knowledge. I also had the opportunity to attend the ESHNR 2015 Annual meeting where I interacted with many radiologists who are pioneers in this field and shared my experiences which further strengthened my interest in Head and Neck radiology. Besides my tutor Professor Christian Czerny I am especially grateful to Dr. Stephan Nemac and Dr. G. Kasprian for their excellent teaching and enthusiasm. I also had the chance to explore the beautiful city of Vienna and make new friends. I would strongly recommend this programme for future radiology trainees.



#### Exchange Programme for Musculoskeletal Radiology Fellowship



#### Neal Larkman

Leeds General Infirmary, Leeds/United Kingdom Topic: Musculoskeletal Radiology Training Centre: Centre de Consultation et d'Imagerie, Lille/France

I was warmly welcomed into the musculoskeletal radiology service of Professor Cotten at CHRU Lille. Mme Cotten and her team have ensured my program is tailored to the diagnostic areas I wanted to improve in and also several ongoing academic projects. There is a strong emphasis on teaching and ample opportunity to improve knowledge with regular interesting case presentations, weekly resident teaching, one-toone modality based teaching. Professor Demondion (Radiologist & Anatomist) ensures close ties to the University anatomy department. I am very grateful to the ESR, ESOR, ESSR and the Orthopaedic Radiology department of CHRU Lille for this opportunity.



#### Justyna Wagel

Uniwersytecki Szpital Kliniczny, Wrocław/Poland Topic: Musculoskeletal Radiology Training Centre: Scientific Institute Hospital "Casa Sollievo della Sofferenza", San Giovanni Rotondo/Italy

Thanks to the ESOR Exchange Programme for Musculoskeletal Radiology Fellowship I have had the opportunity to spend three months in the Musculoskeletal Imaging Department at Scientific Institute Hospital "Casa Sollievo della Sofferenza", San Giovanni Rotondo, Italy, under the direction of Prof. Giuseppe Guglielmi. During my fellowship I had the opportunity to be involved in the daily clinical activities in the Department, especially in evaluation of metabolic bone disease with imaging techniques such as dualenergy x-ray absorptiometry (DXA), quantitative computed tomography and vertebral morphometry. I also had the opportunity to actively participate in writing the musculoskeletal reports by means of radiographs, CT and MRI in several diseases: osteoarthritis, joint diseases, bone marrow hematological disorders and metabolic endocrinological disorders. I have also extended my knowledge in musculoskeletal ultrasound. Additionally, during these three months I had the possibility to attend the MSK Imaging Summer School, a course organized by my tutor Prof. Guglielmi and International Office of University of Foggia under the patronage of the European Society of Musculoskeletal Radiology (ESSR). I'm sure this fellowship will have a strong positive impact on my future clinical practice and I really thank the ESOR programme for the great opportunity I received.



#### Exchange Programme for Neuroradiology Fellowship



#### **Prabath Kumar Mondel** Kem Hospital, Mumbai/India Topic: Neuroradiology Training Centre: Istanbul University Cerrahpasa School of Medicine, Istanbul/Turkey

It gives me immense pleasure to pen down this report of my three-month training program at the Cerrahpasa Medical Facility, Istanbul University. This was a unique chance for me to experience the field of Neurointerventional Imaging. Right from the beginning of my radiology residency I was keenly interested in this field and I am grateful to ESNR for giving this opportunity. My daily schedule included supervising and monitoring the various neuroangioangraphy studies. This was followed by discussion with the senior fellows and faculty regarding the imaging findings and methodical reporting. Most cases were reviewed and the relevant topics were taught by Prof. Naci Kocer or Dr. Civan Islak. Either of them was always available, to answer every single question. Right from the beginning of my radiology residency I was keenly interested in neurointerventional imaging and ESR/ESNR has opened the doors to an academic and research career in this field. My sincere thanks to ESR/ESOR and Prof. Naci Kocer for this wonderful experience.



#### **Richard Olatunji**

LAUTECH Teaching Hospital, Ogbomoso/Nigeria Topic: Neuroradiology Training Centre: Medical University of Vienna/Austria

I am grateful to the ESOR/ESNR for offering me this Fellowship training. Eminent Neuroradiologists led by Prof. Daniela Prayer combined didactic, interactive and hands-on methods to enhance my experience. Several high impact activities like departmental-cum-multidisciplinary meetings on various themes were routine. Constant literature review and interaction with clinicians to ensure accurate diagnosis were very instructive. My tutor, Prof. Majda Thurnher, graciously groomed me in logical reasoning through hands-on sessions and case quizzes on state-of-the-art modalities. I got acquainted with fetal MRI, functional MRI and plexus Neuroimaging. Special thanks to Prof. Gregor Kasprian, Dr. Maria Schmook and many others for making my Vienna experience indelible.





#### **Georgios Velonakis**

Research Center of Radiology and Medical Imaging of the University of Athens/Greece Topic: Neuroradiology Training Centre: University Hospitals Leuven/Belgium

I am grateful to ESOR/ESR and ESNR for awarding me with this three-month fellowship in neuroradiology at the radiology department, University Hospitals Leuven, Leuven (Belgium). Thanks to the great expertise of my supervisor tutor Prof Dr. Philippe Demaerel and my tutor Prof. Dr. Stefan Sunaert, I had the opportunity to broaden my knowledge in Neuroradiology. I was given the opportunity to follow the daily clinical activity in Neuroradiology, and review many interesting studies from the archive. As a leading site, this center is equipped with the newest technologies such as high field MR and PET-MR. Prof. Dr. Ph. Demaerel shared with me his knowledge every day by discussing interesting cases on all Neuroimaging topics. Furthermore, thanks to Prof. Dr. St. Sunaert, I had the opportunity to deal with many clinical f-MRI and DTI studies. Moreover I would like to thank all of the department staff and residents in Leuven for making a visiting fellow like me feel welcome and part of the family. I strongly encourage other trainees to participate in this life-changing experience.



#### Ivan Vukasinovic Clinical Center of Serbia, Belgrade/Serbia Topic: Neuroradiology Training Centre: CHU Toulouse – Hôpital Purpan, Toulouse/France

The ESOR Exchange Programme for Fellowships gave me the opportunity to spend three months at University Hospital Purpan in Toulouse, in the Department of Neuroradiology. Upon my arrival I was warmly welcomed and accepted by the colleagues and staff members. With the subtle and skillful mentoring from Prof. Cognard, I was included in all the department activities, including multidisciplinary meetings, educational lectures, occasional training workshops, and case-by-case discussions of interventional strategies and application of classical and novel endovascular devices. I also learned from a wide range of cases stored in a PACS, which permitted me to pursue all applied imaging modalities and match them with clinical data, all in a time range of several years. In that way we analyzed and discussed all thrombectomy stroke cases done in last two years (more then 200), including complete diagnostic work-up, treatment decision making, interventional strategies, including neurological clinical assessment and follow-up. Even more, during my fellowship I was given a chance to be directly involved in these interventions with the supervision of Prof. Cognard and Dr. Januel. This practical and theoretical experience is for me particularly important, as we are in the critical moment to start performing endovascular stroke treatment in my hospital. Considering all, I was given unique upgrade of professional skills that will give benefit to my department and improve quality of care for our patients. It was a privilege to work in the team of Prof. Cognard.





#### Exchange Programme for Paediatric Radiology Fellowship



#### Danko Batinić KBC Zagreb/Croatia Topic: Paediatric Radiology Training Centre: Medical University of Graz/Austria

I find it to be one of the best experiences in my radiological education. The number and variety of pathology displayed during such a short time was astounding. It is rare to see such a well-educated and well-tuned team of doctors, technicians and nurses. I thank all those that have given me useful tips and tricks, especially my mentor Prof. Riccabona as well as Prof Sorantin. I find my time spent there to be enlightening and a great opportunity to broaden my view of paediatric radiology. Due to my health circumstances unfortunately my stay was shortened.



#### KVN Dhananjaya

S. P. Multispeciality Hospitals Pvt Ltd, Thiruvananthapuram/India Topic: Paediatric Radiology Training Centre: University of Ioannina/Greece

It was a great opportunity provided by European School of Radiology and the European Society of Paediatric Radiology. I am very thankful for selecting me for the Exchange Programme for Fellowships 2015 and awarding me the three-month training in Paediatric radiology at University Hospital of Ioannina, Greece under the supervision of Prof. Maria Argyropoulou. I have participated in the daily activities including CR, USG, CT and MRI reporting. I also attended everyday meetings and discussions about complicated cases, interesting and rare diseases. Extensive knowledge, experience and skills of Prof. Maria Argyropoulou helped me to understand the field of paediatric radiology better and I admire her enthusiasm to teach. I would like to particularly thank Dr. Vassilis Xydis with whom I have spent a considerable amount of time. I have gained more experience in performing neurosonogram in premature ward, ultrasonography of abdomen and small parts, Fluoroscopy procedures, paediatric MRI protocols and evaluations. I would also like to express my gratitude to all the radiologists for their excellent support. The residents, technicians, radiographer and supporting staff were very kind and always helpful. I gained valuable experience in the field of paediatric radiology and now I can confidently practice in my home country.



#### Angélica María Rueda Mejía

Hospital General de Catalunya, Sant Cugat del Valles, Barcelona/Spain Topic: Paediatric Radiology Training Centre: Hôpital du Kremlin Bicêtre, Le Kremlin Bicêtre/France

I am very grateful to the ESOR/ESPR program for giving me the great opportunity to do a fellowship in paediatric radiology at "Hôpital du Kremlin Bicêtre" in Paris, where I could strengthen my knowledge and skills in this subspecialty. My tutors Prof. Catherine Adamsbaum and Dr. Danièle Pariente, and all members of the paediatric radiology department always made effort to teach me as much as possible. The hospital is a referral center for hepatobiliary pathology in France and other neurological and musculoskeletal diseases in children. I had the opportunity to participate in different multidisciplinary and interesting academic sessions where patients with these diseases were discussed. I was also able to observe clinical activities in different techniques (MRI, Ultrasound, Xray, CT, barium studies and interventional radiology procedures) and participate in a research project, under the supervision of Prof Adamsbaum, to whom I am extremely grateful. This fellowship provided me with an excellent educational and social experience which I greatly appreciate and I hope to implement the knowledge acquired in Spain.



#### Exchange Programme for Thoracic Radiology Fellowship



#### Prerana Agarwal

Osmania General Hospital, Hyderabad/India Topic: Thoracic Radiology Training Centre: Medical University of Vienna/Austria

My fellowship in Thoracic Radiology was in the cultural capital of Europe - Vienna, where my experience of working at the Allgemeines Krankenhaus was professionally enriching and engaging. Through ESOR, I was given a wonderful platform to learn the latest trends and guidelines in the field of thoracic imaging. I was delighted to be a part of their daily routine such as the various interdisciplinary discussions and CT guided procedures that provided me with a fresh perspective of the disease entities and expanded my knowledge in the field. I would like to thank my mentor Dr. Helmut Prosch, for making me feel a part of his team, imparting his knowledge whole-heartedly and inspiring me towards newer avenues such as scientific writing. I would also like to thank & congratulate the ESOR for this unique programme that lets Doctors with different backgrounds come together, connect, learn and experience the science of radiology from a whole new vantage point. I strongly recommend the fellowship as it gives novice radiologists an opportunity to learn the latest trends & technology in some of the best teaching hospitals in Europe.



#### Archana Rai Columbia Asia Hospital, Bangalore/India Topic: Thoracic Radiology Training Centre: University Hospital Heidelberg/Germany

I am very grateful to ESOR for giving me the golden and unique opportunity to spend three months at the Radiology department of Thoraxklinik, University Hospital, Heidelberg. I would like to take this opportunity to thank Prof C.P Heussel, my tutors - Dr Schmaehl and Dr Eichinger and all the staff members for making it an unforgettable experience. I was able to get involved in all activities of the department including case reporting, teaching sessions, as well as multidisciplinary and research meetings. Prof Heussel and his staff were always willing to share and discuss interesting cases with me. I got an opportunity to attend a three-day preceptorship course on IPF (Idiopathic Pulmonary Fibrosis). Weekly ILD Boards and this preceptorship course have exposed me to a vast spectrum of interstitial lung diseases and have helped me to develop a patterned approach to diagnose any interstitial lung disease. I have had the opportunity to do scientific work under the guidance of Prof Heussel and Dr Eichinger and was able to complete a retrospective study on comorbidities (rib fractures and osteoporosis) in COPD, which has already been submitted as an abstract for scientific paper in the upcoming ECR 2016. It was indeed a great opportunity to improve my skills in clinical and scientific work. Thank you for such a wonderful experience!!





**ONE-YEAR FELLOWSHIPS** 

My experience

#### **Abdominal Imaging**



#### Claudia Libotean Satu Mare County Hospital Emergency, Satu Mare/Romania Topic: Abdominal Imaging Training Centre: CHU Beaujon, Paris/France

First of all I would like to thank ESOR for giving the opportunity to young specialists to improve their radiological skills and also to take part in an imagistic medical research. I have just started my one-year fellowship at Beaujon Hospital in Paris, France, recognized as a reference center in Abdominal Imaging, under the guidance of my tutor, Prof. Valerie Vilgrain. I want to thank Prof. Valerie Vilgrain and her collaborators for welcoming me and giving me the feeling that I am already part of their team. Until now I had the opportunity to follow interesting cases by performing advanced imaging in US, CT and MRI and I also attended multidisciplinary meetings. By the end of this one-year fellowship programme I hope that both sides (me and the training centre) will be satisfied by our work together.



#### **Chest Radiology**



**Roman Rubtsov** Nikolaev City Emergency Hospital, Nikolaev/Ukraine Topic: Chest Radiology Training Centre: Heidelberg University Hospital, Heidelberg/Germany

Now it is month and a half since I started my training in the departments of Diagnostic and Interventional Radiology at Thoraxklinik Heidelberg (Prof. Heussel) as well as at University Hospital of Heidelberg (Prof. Kauczor) as a participant of the ESOR One-year Fellowship Programme. From the very start I was included into a prepared sequence of research projects in thoracic imaging, where my role was determined considering my previous experience and skills. The first project on comorbidities in COPD-patients in which I found myself in close collaboration with German and foreign scientists has already resulted in abstract submission to ECR (me as co-author). At present, I am involved in a project of lung segmentation in patients with IPF using results of YACTA and LUFIT software for fully-automated data analysis. Having tremendous possibilities in clinical and scientific fields, with several specialized, up-to-date equipped chest-radiology closely cooperating with German cancer research center (DKFZ), University clinic allows me to develop myself not only as a young researcher but also to broaden my practical outlook as a clinical radiologist as I am always cordially invited by friendly staff to observe interventions, attend internal and interdisciplinary boards, seminars, and lectures. Having had six years of practical experience in Nikolaev City Emergency Hospital (Ukraine), this ESOR fellowship is a great opportunity to compare two systems of medical education, health care, diagnostic and clinical approach, to find out more about novel methods in radiology, oncology, and pneumology as well as to boost my career being among top-ranked European specialists by taking a deep dive into science. ESOR gave me an opportunity not only to grow as a professional but also to enjoy living in the beautiful city of Heidelberg at Neckar river, learning German, finding new friends. Much has already been done till now but still it is a long way to go.



#### Interventional Neuroradiology



#### Oscar Sabino Chirife Chaparro Hospital Clinic de Barcelona/Spain Topic: Interventional Neuroradiology Training Centre: Hospital Clinic de Barcelona/Spain

I would like to thank ESOR / ESR for the opportunity to spend this time of training in the Hospital Clinic of Barcelona with the team of Dr. Macho and Dr. Oleaga. I am currently in my third month of training, and I plan to complete the year. During this initial period, the main activity is to participate in clinical multidisciplinary meetings and clinical sessions in the neurovascular pathology department. We have the opportunity to participate in diagnostic and therapeutic procedures at the angio Suite. We also contribute to the research projects that the team conducts. All this, combined with an excellent group of people makes this an invaluable experience.



#### Federico Xavier Zarco Contreras Hospital Teknon, Barcelona/Spain Topic: Interventional Neuroradiology Training Centre: Hospital Clinic de Barcelona/Spain

First of all I would like to thank the ESOR team for providing me with this One-year-fellowship in Interventional Neuroradiology 2015, in partnership with Hospital Clinic of Barcelona/Spain. This programme exposed the fellows to the experience and expertise of a highly specialized European professor and also to the kindness and friendly environment meanwhile learning. This was a memorable educational experience and great opportunity to obtain new perspectives in reporting cases and approaches to neuro-interventional procedures. I want to specially acknowledge my tutors Dr. Juan Macho , Dr. Jordi Blasco and Dr. Luis San Roman for their constant support and always sharing their large experience and knowledge.



#### **Oncologic CT Imaging and CT Tumour Perfusion**



Victor Rodriguez Laval Complejo Hospitalario de Toledo, Madrid/Spain Topic: Oncologic CT Imaging Traning Centre: Universitätsklinikum Charité, Berlin/Germany

I am very grateful to the ESOR for giving me the opportunity to do the one-year fellowship in Oncologic CT Imaging at Charité - Universitätsmedizin Berlin. During this period I have attended diverse weekly multidisciplinary meetings, such as pancreas, liver and neuroendocrine tumour sessions. I had also the opportunity to start my doctoral thesis in the subject of gastrointestinal neuroendocrine tumours. This experience has allowed me to improve my research skills and to integrate in a highly experienced team. I would like to thank Prof. Hamm, my tutor PD Dr. Denecke and all the members of the abdominal section for teaching me and getting me involved in their daily activity.



Faculty 2015



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52

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54

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Christian Czerny Medical University of Vienna/AT Head and Neck Radiology



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# Paul S. Sidhu

King's College Hospital London/UK Contrast Enhanced Ultrasound



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60





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Chest Radiology



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#### Moderators:

L. Bonomo, Rome/IT N. Gourtsoyiannis, Athens/GR

Introduction L. Bonomo, Rome/IT

**ESOR in action 2015** N. Gourtsoyiannis, Athens/GR

The role of the European Training Curriculum: present and future B. Ertl-Wagner, Munich/DE

Spoon-feeding: present and future P. Ros, Cleveland/USA

E-learning portfolios: present and future M. Maas, Amsterdam/NL

#### Awards

On the occasion of the session, scholars and fellows were awarded certificates for successfully completing the 2014 Visiting Scholarship Programmes, Exchange Programmes for Fellowships and Teach-the-Teachers programmes.

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- Herzegovina

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- 26 Sibiu/Romania
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- Madrid/Spain 32
- Umea/Sweden 33
- 34 Barcelona/Spain
- 35 Iasi/Romania
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- 39 Kaliningrad/Russia
- 40 Munich/Germany
- Lille/France 41
- Riga/Latvia 42
- 43 Geneva/Switzerland
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- Odessa/Ukraine 46
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- 12 Shenzhen/China
- 13 Guilin/China
- Shenyang/China 14
- 15 Shijiazhuang/China
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- 18 Hefei/China
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- 23 Taiyuan/China24 Harbin/China
- 25 Jinan/China
- Urumqi/China 26 Changchun/China 27
- 28 Nanchang/China
- 29
- Ningbo/China Haikou/China 30
- Wuxi/China 31
  - Yinchuan/China 32
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