

ECR 2021

PRELIMINARY PROGRAMME

LIVE

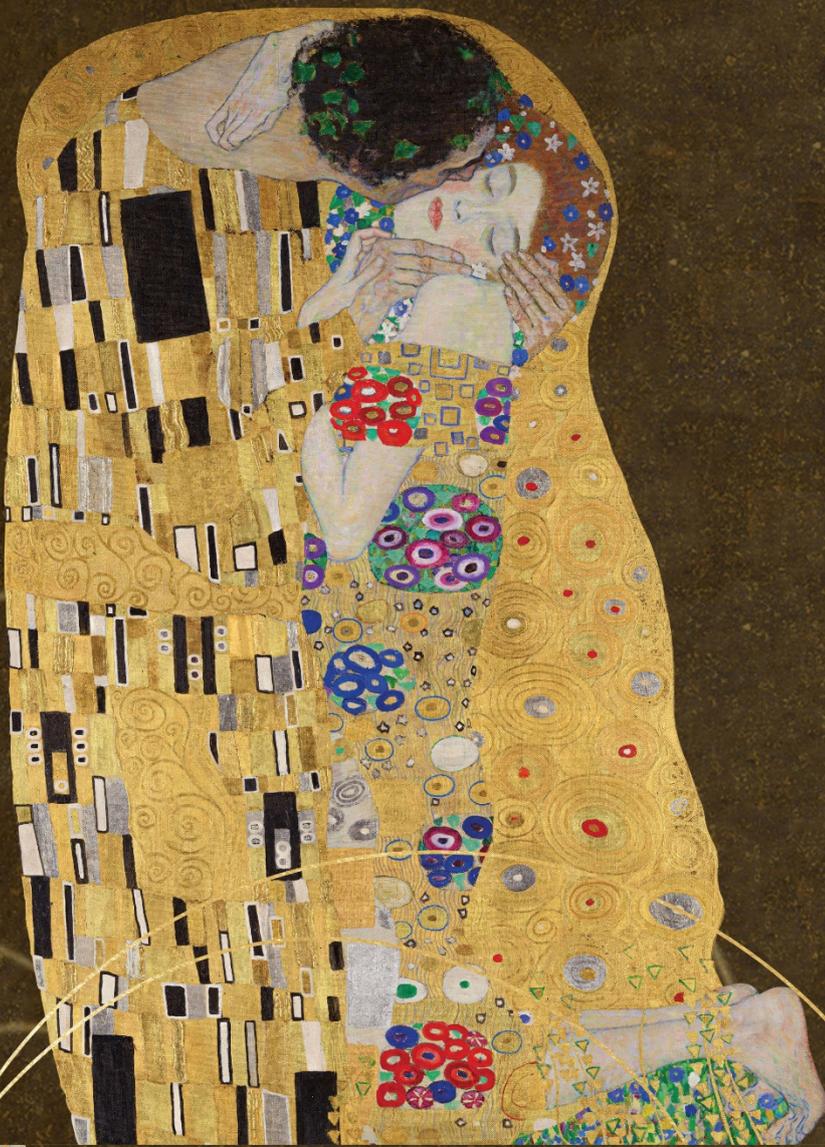
MARCH 3-7

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PRELIMINARY PROGRAMME AS OF
DECEMBER 20, 2020.

NO UPDATES WILL BE MADE UNTIL THE
PUBLICATION OF THE FINAL PROGRAMME.

ESRF EUROPEAN SOCIETY
OF RADIOLOGY



ECR 2021

LIVE PROGRAMME

|| CLICK ON THE SESSION TITLE FOR MORE DETAILS ||

Wednesday, March 3, 2021

EU 6 - Building capacity and quality/safety awareness in Africa

PC 6 - Radiographers meeting the challenges of the COVID-19 pandemic

SF 2 - Cranial nerves: the good, the bad, and the ugly

E³ 1026 - CT in musculoskeletal imaging: tips and tricks

Meets 2 - Radiology in India

RC 206 - Monitoring therapeutic effects: response criteria

RC 414 - Imaging and protecting the foetus

E³ 25A - Basic principles and magnetic field interactions

MS 2 - Fibrotic lung disease

RC 501 - Colon cancer: a multidisciplinary approach

C 13 - Joint EIBIR-EURAMED session on European radiation protection research

E³ 326 - Cardiac imaging in arrhythmia and sudden cardiac death

SF 9 - My three top tips for breast imaging

E³ 1526 - Cone-beam, 4D, and more: new diagnostic tools for vascular diseases

JIIQ - t.b.a.

SF 5 - How to read a chest radiograph

E³ 726 - Renal involvement in coronavirus infection

ESR/EORTC - Trials and tribulations: can imaging biomarkers tell the whole bony story?

NH 2 - Radiology sequencing: massive radiomics analysis in practice

RC 312 - Fluoroscopy: a mainstay state of the art in paediatric radiology

TC 128 - Current status of stroke workup and treatment

TF - Highlighted Lectures

Thursday, March 4, 2021

C 4 - Radiology in the cloud: advantages and threats

PC 4 - Safety challenges in everyday clinical practice

SA 1 - My future and me: personalised cardiac risk stratification

BS 13 - Radiologic anatomy: chest

RC 110 - Ultrasound in musculoskeletal radiology

Meets 3 - Arabian Peninsula radiology: challenges and advances in regulations, education, and practice

RC 307 - The role of MRI for each therapeutic option in prostate cancer follow-up

SF 20 - Clinical impact of artificial intelligence (AI): status report

BS 11 - Musculoskeletal: lower extremities

EU 2 - Avoiding or reducing ionising radiation in children: the ALARA principle

Lancet Oncology - Ensuring sustainable healthcare systems: The Lancet Oncology Commission on Medical Imaging and Nuclear Medicine

SF 25 - Interventional radiology (IR) treatment for arterial occlusive disease and thrombo-embolic disease: lessons learned from head to toe

ESR/EFOMP - High-field vs low-field MRI: time for a re-think?

CB - Case-Based Diagnosis Training

E³ 226 - Radiomics and radiogenomics in breast cancer

ESR Audit - The role of clinical audit in radiology service improvement

RC 114 - Communicating imaging justification

SF 7 - My three top tips: pearls and pitfalls in abdominal imaging

E³ 618 - Demyelination potpourri or "antibody-mediated autoimmunity"?

RC 417 - Penetrating injuries: understanding mechanisms and effects

IF 1 - Resilient individuals: from chronic stress and burnout to happy, healthy, and resilient

SF 1 - My three top tips for CT evaluation of lung parenchyma

TC 228 - Practical stroke imaging and mimics

PL 1 - Plenary Lecture



Friday, March 5, 2021

E³ 626 - Clinical impact of image quantification and artificial intelligence (AI)

RC 208 - Dental imaging for general radiologists

Meets 5 - Embracing our profession in Austria

PL 2 - Plenary Lecture

ESR/ESTRO - MR-guided radiation therapy of gynaecological cancer

Meets 1 - Beats in the mountains

RC 511 - Epilepsy imaging

C 10 - Setting up and managing imaging trials

E³ 1319 - Cardiovascular imaging in pregnancy

ESR QuADRANT - Quality improvement through audit in diagnostic radiology, radiotherapy, and nuclear medicine: a European project on behalf of the European Commission

RC 113 - Blue skies and current trends in digital radiography (DR), computed tomography (CT), and interventional radiology (IR)

SF 8 - The most challenging bowel requests and how to deal with them

IIQ - Star Wars - Episode XXI: the ESR strikes back

MS 1 - Venous thromboembolic disease

E³ 1726 - Post-treatment emergencies in oncologic patients

ESR/EIBIR - Funding the future of research in artificial intelligence (AI) and cardiac imaging: reports from the ESR Research Seed Grant projects

IF 2 - Resilient organisations: the role of the organisation in ensuring employee vitality, engagement, and productivity

BS 8 - Breast imaging

NH 1 - Visualising obesity: the new epidemic

SF 19 - Big data use and governance: top tips for radiographers

TC 328 - Endovascular treatment



Saturday, March 6, 2021

EF 1 - European quality controls (QC) in diagnostic and interventional radiology

PC 1 - Subspecialisation vs despecialisation

RC 415 - Vasculitis and inflammation in arteries

SF 17 - Male erectile dysfunction (ED)

E³ 126 - Update of diffusion-weighted MRI

SF 26 - Recent developments in diagnosing congenital and acquired vascular and lymphatic disorders in children: when, how, and why?

HW - t.b.a.

C 5 - Communicating with patients: adding value to the patient's first encounter with radiology

SF 22 - My three top tips in post-mortem imaging (PMI)

E³ 24B - Basis of breast ultrasound and multimodality readings

Meets 6 - Radiography (imaging and therapy) services in Singapore

C 12 - Innovations in breast imaging: keys to funding success

EFRS WS - Radiographers and patient-centred care

RC 404 - Thoracic manifestations of COVID-19

E³ 426 - Autoimmune thoracic diseases

NH 3 - Thera(g)nostics

E³ 1126 - Acute ischaemic stroke in the era of mechanical thrombectomy

EU 5 - "Yield the shield": new approaches and challenges in the use of gonadal shielding during radiography in children

MS 3 - Sarcoma

IF 3 - The science of meditation and mindfulness

BS 14 - Radiologic anatomy: head and neck

RC 205 - How artificial intelligence (AI) has changed radiology

TC 428 - The future strategy for stroke thrombectomy

PL 4 - Plenary Lecture



Sunday, March 7, 2021

- ESR/EFSUMB - New options of diagnosis and treatment in MSK ultrasound
- MS 4 - Rectal cancer treatment: which are the clinically relevant questions?
- C 19 - Guidance for IT in radiology: how radiologists can benefit from DIAM (Digital Imaging Adoption Model)
- E³ 1226 - Artificial intelligence (AI) applications in the growing body
- SF 21 - Lung cancer screening implementation in Europe: where are we now?
- Meets 4 - Blooming radiology in an ancient nation
- RC 102 - Breast tomosynthesis in screening: where do we stand?
- SA 3 - Assessment of incidental and screen-detected pulmonary nodules
- ESR eHealth - How to enhance radiologist-patient communication through IT
- RC 416 - Cancer becoming a chronic disease: role of imaging and radiomics
- RTF Quiz - Beating heart of radiology
- RC 203 - The radiologist at the centre of the heart team
- SF 12 - Liver transplantation: imaging and intervention
- E³ 826 - Implants in the head and neck
- ESR EIBALL - Navigating an imaging biomarker from concept into the clinic
- PC 5 - The state-of-the-art of everyday radiation: benefit-risk communication
- C 15 - Image quality and dose: a practical guide for radiologists
- SF 13 - Can we limit gadolinium use in neuroimaging?
- C 6 - Professional regulation and opportunities across Europe
- SF 15 - How to succeed in brachial plexus imaging
- IF 4 - Make your own resilience and well-being plan
- BS 1 - Challenges in cross-sectional imaging
- C 1 - Attracting the next generation of radiologists: exploring ways forward
- E³ 1626 - Whole-body MRI (and PET/MRI)



EuroSafe Imaging Session

EU 6 - Building capacity and quality/safety awareness in Africa

Jointly organised by EuroSafe Imaging and IAEA

Wednesday, March 3, 2021 | 08:00-09:00

Moderator

Guy Frija; Paris/FR

Introduction

Shaukat Abdulrazak; Vienna/AT

May Abdel Wahab; Vienna/AT

IAEA policy in Africa

Peter Johnston; Vienna/AT

1. To provide an overview of IAEA's efforts to promote radiation protection in patients in Africa.
2. To understand the challenges and opportunities to improve patient safety in Africa through the demonstration of successful examples.
3. To provide a roadmap for improving radiation protection of patient activities in Africa.

Strengthening radiology in Africa: the IAEA multifactorial approach

Diana Paez; Vienna/AT

1. To provide an overview of IAEA's capacity building activities in Africa.
2. To learn how African countries can concretely benefit from IAEA support.
3. To explore synergies between IAEA, ESR, and Africa.

African Society of Radiology (ASR) expectations

Tarek El-Diasty; Mansoura/EG

1. To understand the role of the African Society of Radiology in promoting quality and safety in radiology practice in Africa.
2. To understand the needs of different African countries.
3. To discuss methods of promoting the exchange of knowledge between African countries via ESR and IAEA.

EuroSafe Imaging Star concept in Africa

Boudjema Mansouri; Algiers/DZ

1. To integrate the AFROSAFE Rad Stars initiative into the AFROSAFE Rad radiation safety campaign (action plan 2019-2021).
2. To define new criteria and rates adapted for the specificities of African countries, the practice of medical imaging, and the implementation of radiation protection.
3. To learn about the impact of EuroSafe Imaging on the launch of AFROSAFE Rad Stars.

Introducing ESR iGuide Clinical Decision Support in Africa

Dina Hussein Salama; Cairo/EG

Michael G. Kawooya; Kampala/UG

Live Q&A



Professional Challenges Session

PC 6 - Radiographers meeting the challenges of the COVID-19 pandemic

Wednesday, March 3, 2021 | 09:15-10:15

Moderators

Carst Buissink; Groningen/NL

George Tsivtsivadze; Tbilisi/GE

How have our clinical practices changed due to COVID-19?

Kari G. Vikestad; Oslo/NO

1. To discuss the challenges in medical imaging brought about by the pandemic.
2. To highlight the approaches and actions being taken to return to normal clinical services.
3. To understand the potential long-term effects of the outbreak on clinical practice.

To look back on a year of COVID-19: the impact on radiographer education

Pete Bridge; Liverpool/UK

1. To understand the ongoing educational challenges.
2. To present staff and student experiences from the past year.
3. To recognise what we have learned through a widespread move to online teaching, learning, and assessment.

Well-being in the era of COVID-19

Jenny Gårdling; Lund/SE

1. To understand what well-being means in the COVID era.
2. To explore strategies to help radiographers reflect and renew.
3. To discuss the coping challenges of radiographers in adjusting to the crisis.

Live Q&A: The impact of COVID on imaging practice



Special Focus Session

SF 2 - Cranial nerves: the good, the bad, and the ugly

Wednesday, March 3, 2021 | 09:15-10:15

Moderator

Elizabeth Loney; Halifax/UK

The good: cranial nerve anatomy

Jan Walther Casselman; Bruges/BE

1. To learn about cranial nerve anatomy.
2. To understand which imaging techniques and sequences to use to best visualise each nerve.
3. To appreciate the path each nerve takes and adjacent structures which might affect it.

The bad: non-neoplastic pathology

Simonetta Gerevini; Milan/IT

1. To appreciate the wide range of non-neoplastic conditions which may affect cranial nerves.
2. To become familiar with the best techniques and sequences to use to image such conditions.
3. To see examples of such pathology in order to aid recognition if encountered during ones own practice.

The ugly: perineural tumour spread

Bernhard F. Schuknecht; Zurich/CH

1. To revise those conditions more likely to present with perineural tumour spread.
2. To become familiar with the best techniques and sequences to use to image such conditions.
3. To see examples of such pathology in order to aid recognition if encountered during ones own practice.

Live Q&A: Challenges and solutions when imaging cranial nerves



E³ - ECR Master Class

E³ 1026 - CT in musculoskeletal imaging: tips and tricks

Wednesday, March 3, 2021 | 10:30-11:30

Moderator

Hatice Tuba Sanal; Ankara/TR

A. Metal artifact reduction: does it work?

Anagha P. Parkar; Bergen/NO

1. To describe how to optimise protocols for metal artifact reduction.
2. To list the pitfalls related to metal type and to understand the strengths and weaknesses of CT vs MRI.
3. To explain how to implement metal artifact reduction effectively in clinical practice.

B. Bone marrow oedema (BME): can CT get it right?

Emma Rowbotham; Leeds/UK

1. To explain the usefulness of dual-energy assessment of bone marrow.
2. To list the pitfalls in diagnosing BME on CT and to understand the strengths and weakness of CT vs MRI.
3. To explain how to implement dual-energy assessment of bone marrow effectively in clinical practice.

C. 4D-CT in musculoskeletal imaging

Thomas Le Corroller; Marseille/FR

1. To describe how to optimise protocols for 4D-CT.
2. To list the normal and pathological findings in joints.
3. To explain the pitfalls in 4D-CT.

D. Soft tissue applications of dual-energy CT (DECT)

Andrea S. Klauser; Innsbruck/AT

1. To describe how to optimise your protocol.
2. To list the indications of DECT for soft tissue and to understand the strengths and weakness of CT vs MRI.
3. To explain the pitfalls in DECT.

Live Q&A



ESR meets India

Meets 2 - Radiology in India

Wednesday, March 3, 2021 | 10:30-11:30

Moderators

Michael H. Fuchsjäger; Graz/AT

Chellathurai Amarnath; Chennai/IN

Temporal lobe epilepsy imaging

Hemant Patel; Ahmedab/IN

1. To understand the importance of imaging in partial focal seizures arising from the temporal lobe.
2. To learn the imaging pearls for establishing the diagnosis of mesial temporal sclerosis on MR imaging.
3. To discuss the updates on various advances in MR imaging such as T2 relaxometry, hippocampal volumetry, and PET MRI.

Interlude 1: Unity in diversity in India

Imaging of CNS infection: spectrum of usual and unusual aetiologies

Deepak P. Patkar; Mumbai/IN

1. To understand the imaging features of various CNS infections.
2. To understand the role of various imaging modalities.
3. To understand the role of advanced MRI sequences like perfusion and spectroscopy.
4. To understand the pearls and pitfalls of various imaging techniques.
5. To understand imaging findings to differentiate infections from other differentials.

Interlude 2: A tour of the history of radiology in India

Ethics in radiology practice

Kunnummal Mohanan; Thrissur/IN

1. To elaborate basic principles of medical ethics applied in radiology.
2. To elaborate ethical principles and diagnostic imaging: over imaging and over diagnosis.
3. To highlight about ethical principles and radiation protection.
4. To inform about ethics in interventional radiology and fetal radiology.
5. To highlight about ethics and innovative approaches in radiology.
6. To highlight ethics and radiology research.
7. To elaborate about ethics and the law.

Imaging in paediatric neurometabolic disease

Chellathurai Amarnath; Chennai/IN

1. To review the classification of neurological metabolic diseases.
2. To highlight the important MRI findings in paediatric leucodystrophies.
3. To present some clues for differential diagnosis and an image-based approach.

Live Q&A



Refresher Course: Hybrid, Molecular and Translational Imaging

RC 206 - Monitoring therapeutic effects: response criteria

(Organised by ESHI(MT))

Wednesday, March 3, 2021 | 10:30-11:30

Moderator

Gerald Antoch; Düsseldorf/DE

A. Morphological response assessment: RECIST 1.1 and 1.0

Sebastian Keil; Aachen/DE

1. To understand the basic concepts of morphological therapy monitoring.
2. To understand how RECIST 1.1 has simplified the previous criteria (RECIST 1.0).
3. To understand the limitations of morphological therapy monitoring.

B. Molecular response assessment: from EORTC to PERCIST

Helmut Prosch; Vienna/AT

1. To understand the basic concepts of molecular therapy monitoring.
2. To understand the limitations of molecular therapy monitoring.
3. To learn of non-FDG tracer applications for therapy monitoring.

C. Monitoring immune-therapy: iRECIST and iPERCIST

Egesta Lopci; Rozzano/IT

1. To understand the basic concepts of morphological therapy monitoring of immune therapies.
2. To understand the differences between various response criteria.
3. To understand the limitations of the various response criteria.

Live Q&A: Implications for clinical workflows



Refresher Course: Radiographers

RC 414 - Imaging and protecting the foetus

Wednesday, March 3, 2021 | 10:30-11:30

Moderators

Louise A. Rainford; Dublin/IE

Nadica Mitreska; Skopje/MK

A. Foetal ultrasound

David Degiorgio; Msida/MT

1. To discuss the role of ultrasound in multiple pregnancies.
2. To outline the presentation of normal anatomy and anomalies on ultrasound.
3. To explore the challenges in imaging common foetal pathologies on ultrasound.

B. Foetal MRI

Christina Malamateniou; London/UK

1. To discuss the current clinical applications of foetal MRI.
2. To outline the presentation of normal anatomy and anomalies on MRI.
3. To explore the challenges and optimisation considerations in foetal MRI.

C. Protecting the foetus during emergency radiography

Jacob Geleijns; Leiden/NL

1. To highlight the importance of justification and record-keeping in radiographic pregnant patients in an emergency setting.
2. To discuss the value of shielding the pregnant female in an emergency setting.
3. To present advice on exposure parameter optimisation in radiography of the pregnant female in a trauma setting.

Live Q&A



E³ - The Beauty of Basic Knowledge: Understanding MRI Technique and MRI Safety

E³ 25A - Basic principles and magnetic field interactions

Wednesday, March 3, 2021 | 11:45-12:45

Moderator

Ursula Reiter; Graz/AT

From the proton to the MR image: the principle of clinical MRI

Andrew Webb; Leiden/NL

1. To understand how the hydrogen nuclei in our bodies respond to the main magnet, the transmitting RF coil, and the magnetic field gradients.
2. To understand how we form an image and how image artifacts can occur.
3. To understand how to produce different contrasts in an MR image.

A systematic overview on MRI interactions with magnetic and electrically conductive material

Fritz Schick; Tübingen/DE

1. To learn about the hardware components that generate different types of electromagnetic fields.
2. To learn about the interactions between the static magnetic field and magnetic material.
3. To learn about the interactions between time-varying electromagnetic fields and electrically conductive material.

Live Q&A



Multidisciplinary Session

MS 2 - Fibrotic lung disease

Wednesday, March 3, 2021 | 11:45-12:45

Moderator

Nicola Sverzellati; Parma/IT

Clinical diagnosis and therapeutic options

Nazia Chaudhuri; Manchester/UK

1. To review the key clinical features of individual fibrotic lung disorders.
2. To understand the prognostic and therapeutic implications of the differential diagnosis among fibrotic lung disorders.
3. To suggest appropriate pharmacologic therapy for patients with individual fibrotic lung disorders.

Radiological patterns and differential diagnoses

Melanie Greaves; Manchester/UK

1. To recognise the key HRCT features of individual fibrotic lung disorders.
2. To understand when clinico-radiological data are sufficient to secure a correct diagnosis.
3. To show how HRCT can provide additional information to histology in the multidisciplinary discussion.

Radiological and pathological patterns and differential diagnoses

M. Angeles Montero-Fernandez; Manchester/UK

1. To recognise the key HRCT features of individual fibrotic lung disorders.
2. To understand when clinico-radiological data are sufficient to secure a correct diagnosis.
3. To show how HRCT can provide additional information to histology in the multidisciplinary discussion.

Multidisciplinary case presentation

Nicola Sverzellati; Parma/IT

Live Q&A



Refresher Course: Abdominal and Gastrointestinal

RC 501 - Colon cancer: a multidisciplinary approach

Wednesday, March 3, 2021 | 11:45-12:45

Moderator

Ivana Blazic; Belgrade/RS

A. What are the expectations from the surgeon?

Dejan Ignjatovic; Oslo/NO

1. To learn about the different surgical options for colon cancer.
2. To learn the surgical nomenclature used for the different variants of surgical procedures, in particular that related to the vasculature.
3. To understand how anatomical vascular variants and lymph node involvement on CT can affect the surgical procedure.

B. My CT protocol for staging colon cancer

Max J. Lahaye; Amsterdam/NL

1. To demonstrate the CT acquisition protocol relevant for staging of colon cancer that also allows demonstration of bowel vasculature.
2. To learn about the vascular anatomy of the colon and nodal pathways as visualised on CT.
3. To understand how software post-processing can facilitate assessment and demonstration of vascular anatomy and lymph node involvement.

C. Integrated staging and vascular assessment

Anne Negaard; Lørenskog/NO

1. To show how a structured report can illustrate local and distant staging in colon cancer.
2. To demonstrate how the vascular assessment is performed in the same examination.
3. To present typical cases that demonstrate the importance of assessment, both in relation to the extent of disease as well as the vascular anatomy.

Live Q&A



Coffee & Talk (open forum) Session

C 13 - Joint EIBIR-EURAMED session on European radiation protection research

Organised by EIBIR

Wednesday, March 3, 2021 | 14:15-15:15

Moderator

Christoph Hoeschen; Magdeburg/DE

Talk from the MEDIRAD project: understanding and evaluating the health effects of low-dose ionising radiation exposure from diagnostic and therapeutic imaging

Guy Frija; Paris/FR

1. To learn about the MEDIRAD research project.
2. To understand the risks of low-dose ionising radiation exposure.

Talk from the SINFONIA project: developing comprehensive risk appraisal for the detrimental effects of radiation exposure on patients and healthcare professionals (during the management of lymphoma or brain tumour patients)

John Damilakis; Iraklion/GR

1. To learn about the SINFONIA research project.
2. To learn about risk appraisal for radiation exposure.

Talk from the EURAMED rocc-n-roll project: developing a strategic research agenda for medical applications of ionising radiation and related radiation protection

Ursula Nestle; Freiburg/DE

1. To learn about the EURAMED rocc-and-roll project.
2. To appreciate the European radiation protection research efforts.

Live Q&A



E³ - ECR Master Class

E³ 326 - Cardiac imaging in arrhythmia and sudden cardiac death

Wednesday, March 3, 2021 | 14:15-15:15

Moderator

Paulo Donato; Coimbra/PT

A. The role of cardiovascular magnetic resonance (CMR) in sudden cardiac death

Katarzyna Gruszczynska; Katowice/PL

1. To become familiar with the pathophysiology of sudden cardiac death.
2. To introduce CMR biomarkers to prevent sudden cardiac death.
3. To learn how to perform and how to interpret CMR to prevent sudden cardiac death.

B. Preventing sudden cardiac death with CT: pure theory or new diagnostic paradigm?

Hubert Cochet; Bordeaux/FR

1. To learn what to look for on CT to prevent sudden cardiac death.
2. To receive an overview of the existing evidence for performing cardiac CT in this indication.
3. To discuss the possible role of cardiac CT in preventing sudden cardiac death.

C. Imaging to drive electrophysiology procedures

Antonio Esposito; Milan/IT

1. To learn about the importance of early identification of potentially lethal arrhythmias.
2. To become familiar with the tips and tricks for successful CT/CMR in patients with arrhythmia.
3. To understand the role of imaging in the planning of electrophysiological procedures.

Live Q&A: Should we screen, who should we screen, and how should we screen in order to prevent sudden cardiac death?



Special Focus Session

SF 9 - My three top tips for breast imaging

Wednesday, March 3, 2021 | 14:15-15:15

Moderator

Isabelle Thomassin-Naggara; Paris/FR

Screening with tomosynthesis

Sophia Zackrisson; Malmö/SE

1. To understand why tomosynthesis is better than mammography for breast cancer screening.
2. To appreciate the current scientific evidence of tomosynthesis in screening.
3. To acknowledge what further steps are needed before implementation in screening.

Automated breast ultrasound

Ritse M. Mann; Nijmegen/NL

1. To recognise artefacts specific to automated breast ultrasound (ABUS).
2. To appreciate the value of multiplanar reconstruction and the coronal spiculation pattern.
3. To gain insight into possible indications for ABUS.

Complex cystic and solid lesions

Panagiotis Kapetas; Vienna/AT

1. To understand the difference between complex cystic and solid lesions from other cystic lesions of the breast.
2. To become familiar with complementary sonographic techniques for the accurate characterisation of cystic breast lesions.
3. To be able to properly manage complex cystic and solid lesions of the breast.

Imaging the axilla

Isabelle Thomassin-Naggara; Paris/FR

1. To understand the clinical role of axillary staging.
2. To learn the imaging features of abnormal lymph nodes and the criteria for biopsy.
3. To understand the importance of discriminating minimal vs advanced nodal disease.

Contrast-enhanced spectral mammography

Eva M. Fallenberg; Munich/DE

1. To understand the technical principles of contrast-enhanced spectral mammography.
2. To understand the added value of information provided by contrast-enhanced spectral mammography.
3. To become familiar with the information provided by contrast-enhanced spectral mammography and breast MRI regarding lesion morphology and enhancement.

Stereotactic-guided biopsy

Elisabetta Giannotti; Nottingham/UK

1. To understand the indications for stereotactic-guided breast biopsy.
2. To learn about the technical aspects of stereotactic biopsy.
3. To understand the importance of marker clip placement post-biopsy.

US-guided biopsy

Alexandra Athanasiou; Athens/GR

1. To understand current indications, contraindications, and possible complications of US-guided biopsy.
2. To be familiar with different available biopsy systems and to know which one to choose according to the clinical setting.
3. To learn the most important technical tips for performing a US-guided biopsy successfully.



MRI-guided biopsy

Gul Esen; Istanbul/TR

1. To understand the importance of pre-biopsy preparation including patient information.
2. To be familiar with how to relate lesion and needle positions.
3. To appreciate tricks for targeting lesions in complicated locations (superficial, deep, retroareolar).

Treatment response and therapy monitoring

Chantal Van Ongeval; Leuven/BE

1. To learn what is important in the reporting of the treatment response.
2. To understand the accuracy of mammography, ultrasound, and magnetic resonance in the monitoring of therapy.

Post-therapy evaluation

Julia Camps Herrero; Valencia/ES

1. To understand and learn the different phases of fat necrosis and its imaging correlates in all modalities.
2. To know what to report in patients with breast implants and oncoplastic reconstructions.
3. To learn the different appearances of breast cancer recurrence.

Live Q&A



E³ - ECR Master Class

E³ 1526 - Cone-beam, 4D, and more: new diagnostic tools for vascular diseases

Wednesday, March 3, 2021 | 15:30-16:30

Moderator

Tobias F. Jakobs; Munich/DE

A. The role of intraprocedural perfusion assessment in peripheral arterial disease

Jim A. Reekers; Amstelveen/NL

1. To understand the technique of intraprocedural perfusion assessment.
2. To learn how to target peripheral revascularisation therapy based on perfusion assessment.
3. To discuss the value of using intraprocedural perfusion assessment on the outcome of endovascular therapy for peripheral artery disease.

B. CT 4D imaging after thoracic endovascular aortic repair (TEVAR)

Rüdiger Scherthaner; Vienna/AT

1. To understand the challenges of imaging follow-up after TEVAR.
2. To become familiar with the technique of 4D CT.
3. To learn how to establish treatment recommendations based on 4D CT results after TEVAR.

C. How cone-beam CT can change your practice in interventional radiology

Raman Uberoi; Oxford/UK

1. To understand the technique of cone-beam CT.
2. To learn about the role and applications of the cone-beam in the angio suite.
3. To discuss the influence on daily clinical practice in interventional radiology.

Live Q&A



Junior Image Interpretation Quiz

JIIQ - t.b.a.

Wednesday, March 3, 2021 | 15:30-16:30

Moderator

Emina Talakić; Graz/AT

Introduction

Michael H. Fuchsjäger; Graz/AT

Panellists

t.b.a.

Live Q&A



Special Focus Session

SF 5 - How to read a chest radiograph

Wednesday, March 3, 2021 | 15:30-16:30

Moderator

Mariaelena Occhipinti; Florence/IT

The lungs

Nigel Howarth; Chêne-Bougeries/CH

1. To review the approach to focal and diffuse lung diseases at chest radiography.
2. To learn how to describe signs of interstitial changes, alveolar opacities, and airway diseases.
3. To appreciate the chest radiograph limitations for focal and diffuse lung diseases.

The hila and pulmonary vasculature

Arjun Nair; London/UK

1. To appreciate the radiographic features of the structures forming the hila.
2. To review the differences between pulmonary arteries and veins.
3. To examine patterns of distribution of pulmonary flow.

The heart and mediastinum

José Vilar; Valencia/ES

1. To review the normal mediastinal lines.
2. To learn about the normal and abnormal mediastinal contour.
3. To focus on the cardio-pericardial silhouette.

The pleura and chest wall

Denis Tack; Baudour/BE

1. To learn about the signs of air and fluid accumulation in the pleural space.
2. To appreciate how to distinguish pleural from extra-pleural lesions.
3. To review the most common chest wall lesions.

Live Q&A: What not to miss in chest radiography?



E³ - ECR Master Class

E³ 726 - Renal involvement in coronavirus infection

Wednesday, March 3, 2021 | 16:45-17:45

Moderator

Raymond H. Oyen; Leuven/BE

A. Pathophysiology of the coronavirus on the kidney

Nicolas Grenier; Bordeaux/FR

1. To understand the impact of COVID-19 on renal function and the underlying pathophysiology.
2. To learn about the association of renal involvement and patient outcome.

B. Renal imaging during the COVID-19 pandemic

Lorenzo E. Derchi; Genoa/IT

1. To become aware of ways to organise renal imaging during the COVID-19 pandemic.
2. To learn the appearance of the kidneys and how best to depict them.
3. To become familiar with what renal clinicians expect from radiologists during COVID-19 pandemic.

C. Renal sequelae of COVID-19 infection

Riccardo Manfredi; Rome/IT

1. To learn the spectrum of post COVID-19 chronic kidney changes.
2. To learn how to follow up post COVID-19 chronic kidney changes.
3. To understand the impact of COVID-19 on patients with pre-existing chronic renal disease.

Live Q&A: The impact of COVID-19 on the kidneys



Joint Session of the ESR and EORTC

ESR/EORTC - Trials and tribulations: can imaging biomarkers tell the whole bony story?

Joint Session with the ESR and EORTC

Wednesday, March 3, 2021 | 16:45-17:45

Moderator

Frédéric E. Lecouvet; Brussels/BE

WB-MRI vs PET for imaging prostate cancer

Ken Herrmann; Essen/DE

1. To learn about the techniques of whole-body MRI and PET for assessing bone metastases from prostate cancer.
2. To appreciate the strengths and limitations of the techniques.
3. To understand when to use these techniques in the clinic.

MRI and PET in breast cancer

Lioe Fee de Geus-Oei; Leiden/NL

1. To learn about the techniques of PET for assessing bone metastases from breast cancer.
2. To appreciate the strengths and limitations of the techniques.
3. To understand when to use MRI vs PET techniques in the clinic.

WB MRI in myeloma

Marius E. Mayerhöfer; Vienna/AT

1. To learn about the techniques of whole-body MRI for assessing myeloma.
2. To appreciate the strengths and limitations of the techniques.
3. To understand when to use MRI for assessing myeloma in the clinic.

Live Q&A: WB-MRI vs PET for imaging bone: is there a right answer?



New Horizons Session

NH 2 - Radiology sequencing: massive radiomics analysis in practice

Wednesday, March 3, 2021 | 16:45-17:45

Moderator

Emanuele Neri; Pisa/IT

Radiomics and phenotyping cancer

Nickolas Papanikolaou; Lisbon/PT

1. To describe the radiomics principles and the concept of imaging phenotype.
2. To show the radiomics pipeline.
3. To explain the concept of deep learning radiomics.

Radiomics: from research to clinics in cancer imaging

Regina G.H. Beets-Tan; Amsterdam/NL

1. To show how to set up a radiomics study in oncology.
2. To discuss the use of imaging data for radiomics validation in view of the GDPR.
3. To discuss the exploitation of research results for the clinical implementation of radiomics.

Linking radiomics features to other omics data in clinical practice

Evis Sala; Cambridge/UK

1. To learn the concept of radiogenomics (how to link, heat maps, etc.).
2. To review the potential applications of radiogenomics (radiomics vs genomics, proteomics, metabolomics etc.).
3. To discuss how to analyse such big data (imaging biobanks, large repositories, etc.).

A research spot in radiomics: the EU EucanImage project

Karim Lekadir; Barcelona/ES

1. To describe the EucanImage project.

Live Q&A: How to go beyond visual perception?



Refresher Course: Paediatric

RC 312 - Fluoroscopy: a mainstay state of the art in paediatric radiology

Wednesday, March 3, 2021 | 18:00-19:00

Moderator

Nadica Mitreska; Skopje/MK

A. Use of fluoroscopy in neonates with suspected gastrointestinal pathology

Ingegerd Aagenaes; Oslo/NO

1. To learn about the most common indications for fluoroscopy in non-urogenital queries in neonates.
2. To become familiar with the technique, findings, and pitfalls for the most common fluoroscopy non-urogenital queries in the neonate.
3. To discuss the best fluoroscopic approach in suspected bowel obstruction in a neonate.

B. Gastrointestinal and other applications in the older child

Joy Barber; London/UK

1. To learn about the most common indications for fluoroscopy in non-urogenital queries in infants and older children.
2. To become familiar with the most common fluoroscopy queries in this patient group.
3. To discuss the most common findings and pitfalls.

C. Urogenital applications

Giulia Perucca; Turin/IT

1. To learn about the indications for fluoroscopy in urogenital queries in children.
2. To become familiar with the technique in fluoroscopic urogenital queries.
3. To discuss the most common findings and pitfalls.

D. When can ultrasound replace fluoroscopy?

Simon G.F. Robben; Maastricht/NL

1. To learn about the indications for dynamic ultrasound studies.
2. To become familiar with the technique of dynamic ultrasound.
3. To discuss the most common pitfalls.

Live Q&A: When can ultrasound imaging replace fluoroscopy?



Transatlantic Course of ESR and RSNA (Radiological Society of North America): Stroke Imaging and Endovascular Treatment: Now and the Future

TC 128 - Current status of stroke workup and treatment

Wednesday, March 3, 2021 | 18:00-19:00

Moderators

Raman Uberoi; Oxford/UK

Achala Vagal; Cincinnati, OH/US

A. Current status of endovascular management of acute ischaemic stroke: evidence and guidelines

Raman Uberoi; Oxford/UK

1. To learn about current evidence of endovascular treatment in acute ischaemic stroke.
2. To become familiar with evidence-based guidelines (AHA/ASA and ESO/ESMINT) in stroke treatment.

B. CT-based evaluation of acute stroke: advantages and challenges

Achala Vagal; Cincinnati, OH/US

1. To learn about the advantages and challenges of CT-based stroke imaging workup.
2. To become familiar with the pitfalls of CT perfusion imaging.

C. MRI-based evaluation of acute stroke: advantages and challenges

Max Wintermark; San Francisco, CA/US

1. To learn about the advantages of MRI-based stroke imaging workup.
2. To become familiar with the challenges of MRI-based stroke imaging workup.

Live Q&A: Strategy for acute stroke imaging and intervention



RTF - Radiology Trainees Forum

TF - Highlighted Lectures

Wednesday, March 3, 2021 | 18:00-19:00

Moderators

Martin Reim; Tartu/EE
Saif Afat; Tübingen/DE

Introduction

Martin Reim; Tartu/EE
Saif Afat; Tübingen/DE

1. To focus on the up-to-date radiological principles in the management of acute ischaemic stroke; the diagnostic approach and interventional radiology strategies.
2. To improve the understanding of myotendinous junction anatomy and its clinical/radiological importance.
3. To encourage young radiologists in their on-call duty with tips from experienced emergency specialist.

Stroke: from diagnosis to treatment

Alan O'Hare; Dublin/IE

1. To learn how to approach stroke from a radiology perspective: the possibilities, indications, and limitations.
2. To appreciate and improve the collaboration to diagnose and treat the stroke patients in the most effective way.
3. To understand the importance of timely diagnostic imaging studies and access to interventional procedures.

Myotendinous junction anatomy and muscle injury

Anagha P. Parkar; Bergen/NO

1. To learn the detailed anatomy of the myotendinous junction and the clinical importance of the injuries in that region.
2. To appreciate the importance of small details in the anatomy and to improve the knowledge of musculoskeletal radiology.
3. To understand the possibilities and limitation in diagnosing muscular injuries.

My first night on call: tips to overcome fear

Elizabeth Dick; London/UK

1. To learn about the possible difficulties that young radiologist will face early in their career at emergency radiology departments and during the nervous first on-call shifts.
2. To appreciate the lessons learned from other professionals and to find out about the tips and tricks to facilitate their on-call work.
3. To understand how to achieve a more confident approach and avoid the possible mistakes that every radiologist might face while being on-call.

Live Q&A: What is the most critical knowledge that young radiologists should take from your talk and this session?



Coffee & Talk (open forum) Session

C 4 - Radiology in the cloud: advantages and threats

Thursday, March 4, 2021 | 08:00-09:00

Moderator

Luis Martí-Bonmatí; Valencia/ES

Trustworthy radiology in the cloud

Ignacio Blanquer; Valencia/ES

1. To learn about the concept of trustworthiness in cloud services.
2. To understand the different dimensions of trustworthiness.
3. To understand the complexity of cloud services when dealing with the processing of sensitive data.

Data protection, cybersecurity, and GDPR in cloud radiology practice

Arnon Makori; Tel Aviv/IL

1. To learn about the key requirements for data protection, cybersecurity, and GDPR relating to cloud-based radiology services.
2. To understand the challenges of cybersecurity in cloud-based radiology services.
3. To understand how to evaluate data protection and GDPR compliance of cloud-based radiology services.

Pseudonymisation and full anonymisation

Karine Seymour; Labège/FR

1. To understand the differences between full anonymisation and pseudonymisation and the implications with respect to GDPR.
2. To identify the roles and obligations of data controllers and data processors in the deidentification process.
3. To become familiar with the confidentiality profiles defined by the DICOM standard and existing solutions.

Live Q&A



Professional Challenges Session

PC 4 - Safety challenges in everyday clinical practice

Thursday, March 4, 2021 | 08:00-09:00

Moderators

Andrew England; Salford/UK

Berit Verbist; Leiden/NL

Benefit/risk communication to adult and paediatric patients: top tips

Jonathan Portelli; Msida/MT

1. To become familiar with benefit and risk communication for adult and paediatric patients.
2. To appreciate opportunities to promote the effective communication of benefit/risk.

MRI safety: recent incidents and continued opportunities to improve

Anne Dorte Blankholm; Aarhus/DK

1. To learn about recent incidents regarding MRI safety.
2. To become familiar with opportunities for improving MRI safety within clinical practice.

Embedding quality improvement in your everyday clinical practice

Marie-Louise Ryan; Dublin/IE

1. To learn about quality improvement tools and strategies.
2. To understand how to embed quality improvements within everyday clinical practice.

GDPR: confidentiality and patient safety considerations for radiographers

Christian Schneckenleitner; Vienna/AT

1. To appreciate the legislative issues surrounding confidentiality and patient safety.
2. To understand patient safety issues pertinent to radiographers.

Live Q&A: How to build a better safety culture among clinical radiographers?



State of the Art Symposium

SA 1 - My future and me: personalised cardiac risk stratification

Thursday, March 4, 2021 | 08:00-09:00

Moderator

Gorka Bastarrika; Pamplona/ES

Screening asymptomatic individuals: state of the evidence and future directions

Rozemarijn Vliegthart; Groningen/NL

1. To become familiar with the evidence for CT calcium scoring in asymptomatic individuals.
2. To learn about the current role of CT calcium scoring in primary prevention guidelines.
3. To appreciate the issues of the wide-spread use of CT calcium scoring and future directions.

Stable chest pain and current guidelines

Giuseppe Muscogiuri; Milan/IT

1. To become familiar with the clinical indication of CCTA in patients with chest pain.
2. To understand the clinical management of patients following CCTA results based on the current guidelines.
3. To understand the economic impact of CCTA in clinical practice following the guidelines.
4. To appreciate the impact of CCTA in terms of prognosis.

Risk stratification in the emergency department

Fabian Bamberg; Freiburg/DE

1. To learn about the role of cardiac CT in the emergency setting.
2. To become familiar with the different findings in cardiac CT in the emergency setting.
3. To understand the value of triple-rule-out CT scanning for risk stratification.
4. To learn about embedding in a non-imaging cardiac risk stratification in the emergency setting.

Emerging artificial intelligence biomarkers: above the current state of the art?

Michael Williams; Cambridge/UK

1. To learn about current and future applications of machine learning/artificial intelligence in cardiac imaging.
2. To understand what is meant by the terms machine learning, deep learning, and radiomics in cardiac imaging.
3. To appreciate some of the limitations of artificial intelligence biomarkers in cardiac imaging.

Live Q&A: How to match the best patient for the best test?



E³ - Rising Stars Programme: Basic Sessions

BS 13 - Radiologic anatomy: chest

Organised by the ESOR

Thursday, March 4, 2021 | 09:15-10:15

Moderator

Fabian Rengier; Heidelberg/DE

Mediastinal

Mariaelena Occhipinti; Florence/IT

1. To review the mediastinal anatomy according to old and new classifications.
2. To define "normal" and "abnormal" mediastinal anatomy.
3. To use radiologic anatomy to characterise mediastinal lesions and to stage tumours.

Lungs

Cornelia M. Schaefer-Prokop; Amersfoort/NL

1. To learn how to interpret mediastinal lines and contours in chest radiography.
2. To become familiar with the "signs" in chest radiography helpful for diagnosis.
3. To learn about the normal appearance of lung parenchyma on CT and to use the anatomy of the secondary lobule for analysis of chest diseases.

Vasculature

Iva Zuza; Rijeka/HR

1. To identify thoracic vascular structures on chest x-rays.
2. To interpret chest vasculature, including aorta and coronary arteries, major aortic branches, and pulmonary arteries and veins, by using multidetector CT (MDCT).
3. To review and illustrate the most common variants and anomalies.
4. To discuss the challenges and limitations in interpretation based on particular CT scanning protocols.

Live Q&A



Refresher Course: Musculoskeletal

RC 110 - Ultrasound in musculoskeletal radiology

Thursday, March 4, 2021 | 09:15-10:15

Moderator

Andrew J. Grainger; Leeds/UK

A. Musculoskeletal ultrasound in the emergency department

Luca M. Sconfienza; Milan/IT

1. To explain the indications of musculoskeletal ultrasound in the emergency department.
2. To describe differential diagnostic considerations of musculoskeletal ultrasound in the emergency department.

B. The role of ultrasound in the diagnosis of soft tissue tumours

Maria Pilar Aparisi Gomez; Valencia/ES

1. To explain the ultrasound findings of soft tissue tumours.
2. To describe differentials in the diagnosis of soft tissue tumours by ultrasound.

C. Ultrasound elastography in musculoskeletal radiology

Jean-Baptiste Pialat; Lyon/FR

1. To explain the techniques used in ultrasound elastography of the musculoskeletal system.
2. To describe ultrasound elastography findings in musculoskeletal radiology.

Live Q&A: New clinical roles for musculoskeletal ultrasound



ESR meets the Arabian Peninsula

Meets 3 - Arabian Peninsula radiology: challenges and advances in regulations, education, and practice

Thursday, March 4, 2021 | 10:30-11:30

Moderators

Michael H. Fuchsjäger; Graz/AT

Lamia Jamjoom; Jeddah/SA

Saqer AlTai; Muscat/OM

Usama M.H. AlBastaki; Dubai/AE

Saudi healthcare: new frontiers

Sattam Saud Lingawi; Jeddah/SA

1. To learn about the overall health affairs' changes planned in Saudi Arabia for vision 2030 and their impact on healthcare policymakers, providers, investors, and the general population.
2. To understand the health policies and practices' reforms in Saudi Arabia in 2020 and Saudi Arabia's new era of international openness in collaboration with international counterparts.
3. To appreciate the corrective measures in medicine in Saudi Arabia and the empowerment of youth, women, and qualified personnel in leadership, emphasising health awareness and education, active lifestyle, and preventive measures.
4. To become familiar with Saudi Arabia's private sector enablement, international investors facilitation, and public-private-partnership (PPP) programmes, transferring medical operations from government-based to private-based, starting with radiological services, teleradiology, and artificial intelligence.

Interlude 1: Saudi Arabia to infinity and beyond

Radiology education in Oman

Jokha Al Kalbani; Muscat/OM

1. To provide an introduction about the evolution of the radiology education in Oman, lead both by the society and the members who are also trainers in the Omani post-graduate education board.
2. To discuss the role of the Omani Radiology society in setting regulations and imaging guidelines as well as spreading the awareness on radiation protection and safe practice in collaborations with international bodies.
3. To describe the international collaborations and emphasis on the role of the society in education and up-to-date conferences.
4. To touch on the challenges and opportunities that the society is facing both locally and internationally.
5. To provide a short description of the society's plans and the timeline for achieving them.

Interlude 2: Oman the past the current and the vision

Challenges facing radiology in the United Arab Emirates and how to tackle them

Taleb Almansoori; Al Ain/AE

1. To introduce the evolution of the radiology sector in the United Arab Emirates.
2. To discuss the implementation of radiology science in undergraduate and post-graduate medical education.
3. To review the current residency programmes and the challenges being faced to attract medical students into the field.
4. To become familiar with the educational activities being organised for radiologists in the United Arab Emirates.

Interlude 3: Overview of the health care system in the UAE

Live Q&A



Refresher Course: Genitourinary

RC 307 - The role of MRI for each therapeutic option in prostate cancer follow-up

Thursday, March 4, 2021 | 10:30-11:30

Moderator

Raphaële Renard-Penna; Paris/FR

A. After radiation therapy and surgery

Valeria Panebianco; Rome/IT

1. To understand the capabilities of MRI to identify prostate cancer recurrence after radiotherapy and radical prostatectomy.
2. To become familiar with the potential reporting/standardisation of prostate cancer recurrence after radiotherapy and radical prostatectomy.
3. To learn the clinical impact of MRI and the optimal integration with the different modalities.

B. After focal therapy

Jurgen J. Fütterer; Nijmegen/NL

1. To understand the capabilities of MRI to identify prostate cancer recurrence after focal therapies.
2. To become familiar with the potential reporting/standardisation of prostate cancer recurrence.
3. To learn the clinical impact of MRI and the optimal integration with the different modalities.

C. During active surveillance

Francesco Giganti; London/UK

1. To understand the role of mpMRI for low and intermediate risk prostate cancer during active surveillance (AS).
2. To become familiar with the dedicated scoring (PRECISE) used to assess radiological change on serial mpMRI during AS.
3. To be aware of the current limitations of PRECISE and how to tackle the challenges ahead.

Live Q&A: How to manage and standardise the prostate cancer follow-up with MRI



Special Focus Session

SF 20 - Clinical impact of artificial intelligence (AI): status report

Thursday, March 4, 2021 | 10:30-11:30

Moderator

Elmar Kotter; Freiburg/DE

AI in chest x-ray prioritisation: has it been useful?

Carlos F. Muñoz-Nuñez; Valencia/ES

1. To understand why prioritisation is useful in clinical practice.
2. To learn how AI can support prioritisation of chest x-rays.
3. To understand the limitations of AI-based prioritisation.

Benefits of AI challenges to clinical practice: algorithms that won and made it to the clinic

Bram Van Ginneken; Nijmegen/NL

1. To learn about AI challenges and their organisation.
2. To understand what happens with the data collected and algorithms created during AI challenges.
3. To learn about examples of AI algorithms that made it from challenges to the clinic.

Research action in AI: a national pilot study in France, DRIM AI

Marc Zins; Paris/FR

1. To understand the organisation of DRIM.
2. To learn about the use cases addressed by DRIM.
3. To understand what lessons can be derived from DRIM.

Live Q&A: AI in practice and research: what are the next steps?



E³ - Rising Stars Programme: Basic Sessions

BS 11 - Musculoskeletal: lower extremities

Organised by the ESR

Thursday, March 4, 2021 | 11:45-12:45

Moderator

Mario Maas; Amsterdam/NL

The degenerative hip

Ustun Aydingoz; Ankara/TR

1. To learn about imaging methods in degenerative hip evaluation.
2. To learn about imaging features in the degenerative hip.

The degenerative knee

Jan L.M.A. Gielen; Antwerp/BE

1. To learn about imaging methods in degenerative knee evaluation.
2. To learn about imaging features in the degenerative knee.

The degenerative ankle

Apostolos H. Karantanas; Iraklion/GR

1. To learn about imaging methods in degenerative ankle evaluation.
2. To learn about imaging features in the degenerative ankle.

Live Q&A



EuroSafe Imaging Session

EU 2 - Avoiding or reducing ionising radiation in children: the ALARA principle

Jointly organised by EuroSafe Imaging and ECR Subcommittee on Paediatric

Thursday, March 4, 2021 | 11:45-12:45

Moderator

Erich Sorantin; Graz/AT

An update on dose reduction techniques in paediatric CT and radiography

Erich Sorantin; Graz/AT

1. To learn about the different technical possibilities.
2. To understand how to improve the benefit/risk-ratio of children in radiography and CT.
3. To become familiar with the relevant resources for radiation protection.

Orthopaedic imaging in children

Lena Gordon Murkes; Stockholm/SE

Jeannette Kraft; Leeds/UK

1. To learn how to limit the indications for CT in skeletal imaging.
2. To learn about the possibilities of low-dose applications in skeletal imaging.
3. To appreciate the important role of ultrasound or MRI for musculoskeletal imaging in children.

Imaging lung diseases in children and adolescents: can we avoid CT?

Diane M. Renz; Hannover/DE

1. To appreciate the role of radiography.
2. To become familiar with the role of ultrasound in lung imaging.
3. To learn about the advantages of lung MRI.

Avoiding radiation in our smallest patients

Willemijn M. Klein; Nijmegen/NL

1. To learn about the alternatives to radiography for depicting lines and tubes in the NICU.
2. To learn about the potential and limitations of bowel ultrasound versus contrast enemas.
3. To understand the potential and limitations of CEUS versus cystography.

Dose management systems (DMS): how they can be beneficial to paediatric patients

Claudio Granata; Genoa/IT

1. To understand how a DMS can be a useful tool for the implementation of the ALARA principle in children.
2. To learn how to optimise a DMS in paediatric radiology.
3. To appreciate the importance of communicating dose exposure to the parents.

Live Q&A



Lancet Oncology Commission Session

Lancet Oncology - Ensuring sustainable healthcare systems: The Lancet Oncology Commission on Medical Imaging and Nuclear Medicine

Thursday, March 4, 2021 | 11:45-12:45

Moderator

David Collingridge; London/UK

Introduction

David Collingridge; London/UK

1. To introduce The Lancet Oncology Commission's programme and objectives.
2. To understand the value of imaging in cancer care.
3. To identify gaps in cancer imaging availability and their implications for healthcare provision.

Goals and scope of The Lancet Oncology Commission on Medical Imaging and Nuclear Medicine

May Abdel Wahab; Vienna/AT

1. To provide information on the scope and aims of the project.
2. To provide information on the data collection methodology.
3. To provide an overview of the related efforts of the IAEA.

Global utilisation of imaging and nuclear medicine in oncology

Andrew Scott; Melbourne, VIC/AU

1. To provide information on the results of the equipment and workforce global survey.
2. To provide information on gaps identified in low- and middle-income countries.
3. To outline technology advances that can improve the delivery of imaging to cancer patients.

Health economic analysis of cancer imaging

Rifat Atun; Boston, MA/US

1. To outline the methodology and results of health economics analysis for imaging in cancer at a global and country level.
2. To outline the investment in imaging required for improved health outcomes.
3. To present an investment case for cancer imaging.

Overview and recommendations

Hedvig Hricak; New York, NY/US

1. To provide a summary of results.
2. To provide recommendations for policy and investment with respect to the imaging of cancer patients at country and global levels.
3. To highlight how the commission's findings may aid in the implementation of the 2017 Cancer Resolution "Cancer prevention and control in the context of an integrated approach".

Live Q&A



Special Focus Session

SF 25 - Interventional radiology (IR) treatment for arterial occlusive disease and thrombo-embolic disease: lessons learned from head to toe

Thursday, March 4, 2021 | 11:45-12:45

Moderator

Elias N. Brountzos; Athens/GR

Revascularisation in acute ischaemic stroke

Gregoire Boulouis; Paris/FR

1. To learn how to select suitable candidates for mechanical stroke thrombectomy (MST) on the basis of the clinical and imaging evaluation.
2. To learn about basic techniques of MST and the most used tools.
3. To learn about the results and complications.

Aorta and aortic branches interventions: current evidence

Viktor Bérczi; Budapest/HU

1. To learn about the indications, techniques, results, and complications of interventions for isolated aortic stenoses.
2. To learn about the indications for IR treatment of athero-occlusive lesions of the innominate and subclavian arteries (aortic arch arteries).
3. To understand the results of IR treatment of the athero-occlusive lesions of the renal arteries.

How to treat acute and chronic mesenteric ischaemia

Tomasz Jargiello; Lublin/PL

1. To learn how to select patients with acute arterial mesenteric ischaemia for IR treatment on the basis of clinical and imaging evaluations.
2. To understand the techniques used in IR treatment of acute arterial mesenteric ischaemia and to learn about the results and complications.
3. To understand the indications for IR treatment of patients with chronic mesenteric ischaemia.
4. To learn about the techniques, results, and complications of IR treatment for chronic mesenteric ischaemia.

Endovascular treatment of the diabetic foot: new techniques

Marco Manzi; Abano Terme/IT

1. To learn about the indications of innovative arterial access for diabetic foot IR treatment, i.e. pedal access.
2. To learn about the new tools for treating long total occlusions.
3. To learn about the indications and techniques of lithotripsy.
4. To understand the role of drug-eluting technology.

Live Q&A: Are IR techniques evolving as the first-line treatment modality for atheromatous disease? Are there any exceptions to the rule?



Joint Session of the ESR and EFOMP

ESR/EFOMP - High-field vs low-field MRI: time for a re-think?

Thursday, March 4, 2021 | 14:15-15:15

Moderators

David J. Lurie; Aberdeen/UK

Marion Smits; Rotterdam/NL

Advantages of 0.5 Tesla and below: physics and technology

Andrew Webb; Leiden/NL

1. To become familiar with the low-field MRI technology.
2. To explore the advantages of low-field MRI.
3. To understand the drawbacks of low-field MRI.

Clinical benefits of low-field MRI

Sebastian Kozerke; Zurich/CH

1. To become familiar with the clinical applications of low-field MRI.
2. To understand the benefits of low-field MRI of the heart.
3. To understand the disadvantages of low-field MRI for clinical application.

Advantages of 7 Tesla and above: physics and technology

David Brunner; Zurich/CH

1. To become familiar with the high-field MRI technology.
2. To explore the advantages of high-field MRI.
3. To understand the drawbacks of high-field MRI.

Clinical benefits of high-field MRI

Anja van der Kolk; Utrecht/NL

1. To become familiar with the clinical applications of high-field MRI.
2. To understand the benefits of high-field MRI of the brain.
3. To understand the disadvantages of high-field MRI for clinical application.

Live Q&A: Does clinical value scale with magnetic field strength?



E³ - Rising Stars Programme: Case-Based Diagnosis Training

CB - Case-Based Diagnosis Training

Thursday, March 4, 2021 | 14:15-16:30

Moderators

Soraya Robinson; Vienna/AT

Klaus M. Friedrich; Vienna/AT

Liver

Filipe Caseiro Alves; Coimbra/PT

Neuro

Daniela Prayer; Vienna/AT

Musculoskeletal

Franz Kainberger; Vienna/AT

Maxillofacial

Soraya Robinson; Vienna/AT

Genitourinary

Michael Toepker; Vienna/AT

Interlude: Air in the wrong place

Burce Ozgen Mocan; Chicago, IL/US

BREAK

Head and neck

Christian Czerny; Vienna/AT

Chest

Helmut Prosch; Vienna/AT

Spine

Klaus M. Friedrich; Vienna/AT

Gastrointestinal

Wolfgang Schima; Vienna/AT

Breast

Michael H. Fuchsjäger; Graz/AT



E³ - ECR Master Class

E³ 226 - Radiomics and radiogenomics in breast cancer

Thursday, March 4, 2021 | 15:30-16:30

Moderator

Thomas H. Helbich; Vienna/AT

A. What is it and how does it work?

Katja Pinker-Domenig; New York, NY/US

1. To understand the definitions of radiomics and radiogenomics.
2. To understand how the information is generated from images and genomics.
3. To learn about the newest literature on the topic.

B. Can it be clinically useful?

Nicolò Luca Matteo Battisti; London/UK

1. To understand the current challenges in estimating prognosis in breast cancer.
2. To appreciate when radiomics and radiogenomics can add to the clinical picture.
3. To learn about their potential role for personalised medicine.

C. AI-improved breast imaging "omics"

Ritse M. Mann; Nijmegen/NL

1. To learn about the basic definitions of AI.
2. To discuss the possible applications of AI beyond detection.
3. To appreciate when the addition of AI may improve "omics".

Live Q&A: Are we ready to integrate prognostic imaging into the tumour board?



ESR Audit and Standards Session

ESR Audit - The role of clinical audit in radiology service improvement

Thursday, March 4, 2021 | 15:30-16:30

Moderator

David C. Howlett; Eastbourne/UK

Radiology service improvement: what can be learned from industry?

Steven Lee; Guildford/UK

1. To understand the concepts of quality/service improvement.
2. To appreciate the experience of industry in service improvement.
3. To highlight the benefits for radiology departments of effective processes of quality improvement.

The EU Basic Safety Standards Directive and related clinical audit requirements

Alexandra Karoussou-Schreiner;
Luxembourg/LU

1. To appreciate the roles of HERCA and inspection.
2. To highlight the importance of clinical audit as defined within the EU-BSS.
3. To consider the findings and implications of ESR EU-BSS uptake surveys.

Development of European radiological clinical audit: the role of the national societies

Andrea G. Rockall; London/UK

1. To review the structure and function of the ESR national societies network.
2. To appreciate the concepts of internal vs external audit and audit with external direction.
3. To consider future development of pan-European radiology clinical audit networks.

Live Q&A: Quality improvement and radiology: how to enhance clinical audit practice?



Refresher Course: Radiographers

RC 114 - Communicating imaging justification

Thursday, March 4, 2021 | 16:45-17:45

Moderators

Paul Bezzina; Msida/MT

Irina Abelskaya; Minsk/BY

A. The role of radiographers as practitioners

Shane J. Foley; Dublin/IE

1. To become familiar with the EU Basic Safety Standards (BSS) directive on the role of the practitioner.
2. To understand the role of radiographers as practitioners.
3. To explore the future role of radiographers as practitioners.

B. Teamwork in the justification process

Kristin Bakke Lysdahl; Kongsberg/NO

1. To highlight the importance of radiographers working within a multidisciplinary team.
2. To provide practical advice for radiographers in performing justification.
3. To present the different roles of radiographers as practitioner in different countries.

C. The challenges of referral guideline implementation

Amanda Martin; Manchester/UK

1. To introduce the iRefer and ESR iGuide referral guidelines.
2. To present the challenges in implementing referral guidelines for radiography.
3. To discuss the advantages and limitations of referral guideline implementation.

Live Q&A: How best can we progress the issue of justification in the current clinical environment?



Special Focus Session

SF 7 - My three top tips: pearls and pitfalls in abdominal imaging

Thursday, March 4, 2021 | 16:45-17:45

Moderator

Nikolaos Kartalis; Stockholm/SE

Liver

Yves Menu; Paris/FR

1. To identify key imaging findings in the evaluation of the liver.
2. To understand the importance of appropriately performed examination protocols.
3. To become familiar with the most common pitfalls and how to avoid them.

Bile ducts

Miriam Klauß; Heidelberg/DE

1. To identify key imaging findings in the evaluation of the bile ducts.
2. To understand the importance of appropriately performed examination protocols.
3. To become familiar with the most common pitfalls and how to avoid them.

Pancreas

Celso Matos; Lisbon/PT

1. To identify key imaging findings in the evaluation of the pancreas.
2. To understand the importance of appropriately performed examination protocols.
3. To become familiar with the most common pitfalls and how to avoid them.

Colon/rectum

Andrea Laghi; Rome/IT

1. To identify key imaging findings in the evaluation of the colon and rectum.
2. To understand the importance of appropriately performed examination protocols.
3. To become familiar with the most common pitfalls and how to avoid them.

Spleen

Ali Devrim Karaosmanoglu; Ankara/TR

1. To identify key imaging findings in the evaluation of the spleen.
2. To understand the importance of appropriately performed examination protocols.
3. To become familiar with the most common pitfalls and how to avoid them.

Kidney

Kevin Murphy; Cork/IE

1. To identify key imaging findings in the evaluation of the kidney.
2. To understand the importance of appropriately performed examination protocols.
3. To become familiar with the most common pitfalls and how to avoid them.

Adrenal

Giles Boland; Boston, MA/US

1. To identify key imaging findings in the evaluation of the adrenal.
2. To understand the importance of appropriately performed examination protocols.
3. To become familiar with the most common pitfalls and how to avoid them.

Prostate

Harriet C. Thoeny; Fribourg/CH

1. To identify key imaging findings in the evaluation of the prostate.
2. To understand the importance of appropriately performed examination protocols.
3. To become familiar with the most common pitfalls and how to avoid them.

Live Q&A: How can we really avoid mistakes from imaging pitfalls?



E³ - Advanced Courses: Neuro

E³ 618 - Demyelination potpourri or "antibody-mediated autoimmunity"?

Thursday, March 4, 2021 | 18:00-19:00

Moderator

Tarek A. Yousry; London/UK

A. Circumventricular organs and neuromyelitis optica spectrum disorders (NMOSD)

Majda M. Thurnher; Vienna/AT

1. To learn about circumventricular organs.
2. To understand the imaging findings in NMOSD.
3. To learn how to differentiate between demyelinating diseases.

B. Multiple sclerosis (MS): views from the rooftop

Frederik Barkhof; Amsterdam/NL

1. To learn about the currently valid MS diagnostic criteria and how to use them in clinical routine.
2. To discuss the "perfect" MS protocol, including contrast use.
3. To learn how and when to use artificial intelligence programs for MS.

C. Acute disseminated encephalomyelitis (ADEM) and similar parainfectious syndromes

Andrea Rossi; Genoa/IT

1. To discuss the clinical background in ADEM and ADEM-related diseases.
2. To learn the different imaging patterns in ADEM.
3. To adopt the checklist for reporting in suspected ADEM.

Live Q&A



Refresher Course: Emergency Imaging

RC 417 - Penetrating injuries: understanding mechanisms and effects

Thursday, March 4, 2021 | 18:00-19:00

Moderator

Mari T. Nummela; Helsinki/FI

A. Penetrating injury: blades, bullets, and beyond

Nupur Verma; Gainesville, FL/US

1. To become familiar with knife/sharp object wounds and how to detect their effect on tissues.
2. To understand the mechanism of injury at different velocities.
3. To recognise the predictable and unpredictable trajectories of bullets and flying fragments within the body.

B. Penetrating injuries of the upper body: head, neck, chest, and upper limbs

Ken Linnau; Seattle, WA/US

1. To develop a systematic approach for reviewing the relevant structures in a patient with a surface wound.
2. To recognise occult signs of penetrating injury.
3. To learn how to help clinicians evaluate and re-evaluate a patient with a penetrating injury.

C. Penetrating injuries of the lower body: diaphragm, abdomen, pelvis, and lower limbs

Elizabeth Dick; London/UK

1. To seek out constellations of obvious and occult injuries in pelvic penetrating trauma, including neurovascular and perineal injuries.
2. To become familiar with the spectrum of vascular injuries including active bleeding, pseudoaneurysms, dissection and thrombus formation, and arteriovenous fistulas.
3. To recognise where radiologists can add value and guide the surgical approach.

Live Q&A: How to manage and standardise the prostate cancer follow-up with MRI



Healthcare Professionals in Focus

IF 1 - Resilient individuals: from chronic stress and burnout to happy, healthy, and resilient

Thursday, March 4, 2021 | 18:00-19:30

Moderator

M.G. Myriam Hunink; Rotterdam/NL

From Big Bang to burnout

Witte Hoogendijk; Rotterdam/NL

1. To understand how we are not adapted to the stressors of modern life.
2. To appreciate the increase in chronic stress among healthcare providers due to the pandemic.

The stress of being a radiologist

Markus F. Berger; Nottwil/CH

1. To learn to recognise the early symptoms of burnout in oneself.
2. To understand how life events and work stress in radiology contribute to burnout.
3. To appreciate the challenges in dealing with burnout.
4. To understand what is needed to prevent chronic stress and burnout.

Healthy minds

t.b.a.

1. To learn what the science tells us about well-being and healthy minds.
2. To understand what this means for cultivating well-being.
3. To appreciate the brain imaging findings of a healthy mind versus those of a stressed mind.

Live Q&A: Interventions at the individual level that cultivate resilience and well-being



Special Focus Session

SF 1 - My three top tips for CT evaluation of lung parenchyma

Thursday, March 4, 2021 | 19:45-20:45

Moderator

Anagha P. Parkar; Bergen/NO

How to differentiate cystic diseases from emphysema

Peter Beddy; Dublin/IE

1. To know what is normal aging.
2. To understand the CT imaging criteria of emphysema.
3. To know what defines a lung cyst.

How to differentiate honeycombing from paraseptal emphysema

Johny A. Verschakelen; Leuven/BE

1. To understand the CT definition of paraseptal emphysema.
2. To learn the definition of honeycombing.
3. To know the significance recognising honeycombing.

How to differentiate the main cystic diseases from one another

Anastasia Oikonomou; Toronto, ON/CA

1. To recognise the patterns of the commonest cystic lung diseases.
2. To recognise the rarer diseases.
3. To learn about the prevalence of the various diseases.

How to differentiate bronchial dilatation from bronchiectasies

Helmut Prosch; Vienna/AT

1. To learn the definition of bronchial dilatation.
2. To learn the definition of bronchiectasies
3. To learn what to report or recommend when there is uncertainty.

How to differentiate solid from subsolid nodules

Felix Doellinger; Berlin/DE

1. To learn the definition and CT imaging criteria of solid nodules.
2. To learn the definition and CT imaging criteria of subsolid nodules.
3. To learn the difference in follow up of the nodules.

How to differentiate intralobular and interlobular lines

Thomas Frauenfelder; Zurich/CH

1. To learn the definition and CT imaging criteria of intralobular lines.
2. To learn the definition and CT imaging criteria of interlobular lines.
3. To understand why it is important to recognise these patterns.

How to differentiate centrilobular and septal nodules

Carole Ridge; London/UK

1. To learn the definition and CT imaging criteria of centrilobular nodules.
2. To learn the definition and CT imaging criteria of septal nodules.
3. To understand why it is important to recognise these patterns.

How to differentiate ground glass from mosaic attenuation

Marie-Pierre Revel; Paris/FR

1. To learn the definition and CT imaging criteria of ground glass opacities.
2. To learn the definition and CT imaging criteria of mosaic attenuation.
3. To understand why it is important to recognise these patterns.

Live Q&A



Transatlantic Course of ESR and RSNA (Radiological Society of North America): Stroke Imaging and Endovascular Treatment: Now and the Future

TC 228 - Practical stroke imaging and mimics

Thursday, March 4, 2021 | 19:45-20:45

Moderators

Jean-Pierre Pruvo; Lille/FR

Achala Vagal; Cincinnati, OH/US

A. Stroke mimics and "chameleons": how to recognise them

Didier Leys; Lille/FR

1. To learn about the definitions of stroke mimics and chameleons.
2. To understand the clinical challenges of stroke mimics.
3. To become familiar with the imaging signs and differential diagnosis of stroke mimics

B. Practical review of stroke imaging and triage: within six hours and beyond including wake-up strokes

Lotfi Hacein-Bey; Sacramento, CA/US

1. To learn about optimal patient triage in acute ischaemic stroke in early and delayed time windows.
2. To understand stroke imaging in wake-up strokes and unknown onset time.
3. To appreciate the importance of efficient workup and time metrics.

C. Interactive case presentation

Lotfi Hacein-Bey; Sacramento, CA/US

Didier Leys; Lille/FR

1. To learn how imaging can help in decision making in acute stroke.
2. To consolidate the knowledge gained from the session with interactive cases.

Live Q&A



Plenary Lecture

PL 1 - Plenary Lecture

Thursday, March 4, 2021 | 21:00-21:30

Moderator

Michael H. Fuchsjäger; Graz/AT

ACE2 - a rationale front line therapy for COVID-19

Josef Penninger; Vancouver/CA

Live Q&A



E³ - ECR Master Class

E³ 626 - Clinical impact of image quantification and artificial intelligence (AI)

Friday, March 5, 2021 | 08:00-09:00

Moderator

Thomas Beyer; Vienna/AT

A. The role of quantification in brain imaging

Ralf Buchert; Hamburg/DE

1. To learn quantification methods for brain metabolism and dementia.
2. To outline reliable quantification methods for neuroinflammation.
3. To discuss the added value of quantification.

B. Quantitative imaging and AI in cardiovascular diseases

Niek Prakken; Groningen/NL

1. To outline machine learning techniques and metrics for cardiac imaging.
2. To learn about quantification of cardiac and intravascular flow.
3. To understand the value of quantitative cardiac imaging for myocardial ischaemia.

C. Quantitative imaging and radiomics in oncology

Gary Cook; London/UK

1. To outline quantitative methods, radiomics, and machine learning in oncological molecular imaging.
2. To learn about potential targets and metrics as promising imaging biomarkers.
3. To discuss the challenges of quantitative imaging and radiomics in oncology.

Live Q&A: what can we quantify and what is clinically essential?



Refresher Course: Head and Neck

RC 208 - Dental imaging for general radiologists

Friday, March 5, 2021 | 08:00-09:00

Moderator

Edith Vassallo; Msida/MT

A. Dental variants: what the general radiologist needs to know

Andy Whyte; Perth/AU

1. To revise the anatomy of teeth and surrounding structures.
2. To learn about commonly encountered dental variants.
3. To become acquainted with how to image and report such findings.

B. Odontogenic cysts: sorting the wood from the trees

Nicholas Drage; Cardiff/UK

1. To become familiar with different types of odontogenic cysts.
2. To learn how best to image these lesions.
3. To review those imaging features that help differentiate lesions from one another.

C. Reporting orthopantomogram (OPT): what and what not to report

Kaan Orhan; Ankara/TR

1. To review indications for OPT and when to perform other imaging.
2. To learn about artefacts on OPT and how to obtain better images.
3. To understand which pathology to comment upon and why.

Live Q&A: Personal pearls and pitfalls in reporting



EFRS meets Austria

Meets 5 - Embracing our profession in Austria

Friday, March 5, 2021 | 09:15-10:15

Moderators

t.b.a.

Introduction: radiographers in Austria

Sabine Weissensteiner; Vienna/AT

1. To introduce the radiography profession in Austria and the priorities of the national society.
2. To introduce Austria as a country, the Austrian lifestyle, and the Austrian culture.

Continuing professional development for radiographers: criteria in training and education

Fritz Friedl; Vienna/AT

1. To learn about the Austrian guidelines, the need for further education, and continuous professional development (CPD).
2. To explore the use of dedicated software to support the CPD programme and the individual health professional/radiographer.
3. To understand the challenges in implementing CPD guidelines and standards.

Masters programmes for Austrian radiographers

Sabine Leitner; Vienna/AT

1. To become familiar with the different degree programmes for radiographers in Austria.
2. To consider the potential scope of practice for, and impact of, master's degree graduates.
3. To discuss the career challenges for master's degree graduates.

Interlude: Austria: beyond ECR

Radiographer research in Austria

t.b.a.

1. To learn about radiographer research activity in Austria.
2. To discuss research opportunities available to Austrian clinical and academic radiographers.
3. To explore future plans for growing radiographer research involvement in Austria.

Evaluation of the eye lens dose in angiography

t.b.a.

1. To consider EU Council Directive 2013/59/Euratom in terms of eye lens doses and dose measurement.
2. To learn about the Austrian guidelines for eye lens dose.
3. To explore the impact of eye lens dose measurement and methods for dose evaluation.

MedAustron: cancer treatment with particle therapy and the radiographers' role

Harald Hentschel; Wiener Neustadt/AT

1. To introduce the use of particle therapy for cancer treatment.
2. To identify the radiographers' role within particle therapy and the wider multidisciplinary team.
3. To consider future opportunities for radiographers involved in a particle therapy service.

Live Q&A



Plenary Lecture

PL 2 - Plenary Lecture

Friday, March 5, 2021 | 10:45-11:15

Moderator

Michael H. Fuchsjäger; Graz/AT

t.b.a.

Thomas Bubendorfer; Monaco/MC

Live Q&A



Joint Session of the ESR and ESTRO

ESR/ESTRO - MR-guided radiation therapy of gynaecological cancer

Friday, March 5, 2021 | 11:45-12:45

Moderators

Regina G.H. Beets-Tan; Amsterdam/NL

Ben J. Slotman; Amsterdam/NL

Functional MRI for cervical cancer

Evis Sala; Cambridge/UK

1. To review the role of functional MRI in the treatment selection of patients with cervical cancer.
2. To understand the role of functional MRI in radiotherapy treatment planning.
3. To learn about the potential of functional MRI in assessing treatment response and predicting outcome.

A first experience with the MR-linac in gynaecological tumours

Luca Boldrini; Rome/IT

1. To become familiar with MR-linac gynaecological cancer treatment.
2. To learn about hybrid MR-guided adaptive treatment approaches.
3. To discuss possible future developments and opportunities.

MR anatomy of the uterus, cervix, and pelvic floor: all you need to know for accurate contouring

Stephanie Nougaret; Montpellier/FR

1. To review the basic anatomy of the uterus, cervix, and pelvic floor.
2. To understand the relevant anatomy prior to radiotherapy for the treatment of uterine cancers.
3. To understand the relevant anatomy prior to radiotherapy in the setting of pelvic relapse.

Image-guided adaptive brachytherapy in gynaecological tumours

Remi Nout; Rotterdam/NL

1. To become familiar with the concepts and methodology of MRI-based image-guided adaptive brachytherapy.
2. To review the key clinical outcomes when using this technique.
3. To discuss the possible future developments and opportunities.

Live Q&A: MR-guided radiation therapy of gynaecological cancer: how should radiologists and radiotherapists work in synergy?



ESR meets Austria

Meets 1 - Beats in the mountains

Friday, March 5, 2021 | 11:45-12:45

Moderators

Michael H. Fuchsjäger; Graz/AT

Rosemarie Forstner; Salzburg/AT

Introduction

Wolfgang Schima; Vienna/AT

1. To learn about what makes hearts beat faster in Austria.
2. To understand major risks in the mountains.
3. To appreciate hearing the land of music.

Cardiac risk profiling in sports

Christian Loewe; Vienna/AT

1. To learn about sudden cardiac death in mountain hiking.
2. To understand cardiac risk factors in sports activities.
3. To appreciate coronary CTA in cardiac risk profiling.

Alpine emergency room management

Helmut Schöllnast; Graz/AT

1. To learn about the most frequent trauma cases in alpine regions.
2. To understand imaging algorithms in shock room management.
3. To appreciate multidisciplinary case reviews.

Hearing loss and modern implant rehabilitation

Gerlig Widmann; Innsbruck/AT

1. To learn about various hearing implants.
2. To understand relevant preoperative conditions.
3. To appreciate imaging in the postoperative evaluation of implants.

Live Q&A: Open your heart, don't break, listen



Refresher Course: Neuro

RC 511 - Epilepsy imaging

Friday, March 5, 2021 | 11:45-12:45

Moderator

Horst Urbach; Freiburg/DE

A. How to investigate epilepsy

Louis Lemieux; London/UK

1. To understand the pathophysiology of epilepsy.
2. To learn how to image epilepsy in clinical practice.
3. To become familiar with advanced MRI in epilepsy management.

B. How to report malformations of the cortical development

Pia C. Maly Sundgren; Lund/SE

1. To understand the pathophysiology of cortical development.
2. To recognise the malformations of cortical development.
3. To learn how to report the malformations of cortical development.

C. How to image epilepsy in adults

Jérôme Hodel; Créteil/FR

1. To learn how to optimise imaging protocols in epilepsy.
2. To become familiar with the primarily acquired diseases in epilepsy.
3. To learn how to report brain imaging in acquired epilepsy.

Live Q&A: Would artificial intelligence bridge the gap in intractable epilepsy?



Coffee & Talk (open forum) Session

C 10 - Setting up and managing imaging trials

Organised by the EORTC

Friday, March 5, 2021 | 14:15-15:15

Moderator

Nandita M. deSouza; Sutton/UK

Challenges of introducing imaging biomarkers as end-points into clinical trials

Saskia Litière; Brussels/BE

1. To learn what requirements are necessary for clinical trial end-points.
2. To appreciate the difficulties in introducing imaging biomarkers as end-points.
3. To understand what needs to be addressed to overcome the challenges.

How do I share my trial data?

Marion Smits; Rotterdam/NL

1. To learn what is needed when archiving data for external use.
2. To appreciate the challenges of setting up an accessible image archive.
3. To understand the limitations.

What is the shelf-life of imaging data?

Luc Bidaut; Lincoln/UK

1. To learn about the use of quantitative imaging data for comparative studies over time.
2. To appreciate the speed of the evolution of imaging technology.
3. To understand the pitfalls of quantitative analysis from banked data.

Live Q&A



E³ - Advanced Courses: How to Improve Your Expertise in Cardiothoracic Imaging

E³ 1319 - Cardiovascular imaging in pregnancy

Friday, March 5, 2021 | 14:15-15:15

Moderator

Jean-Nicolas Dacher; Rouen/FR

A. Pulmonary embolism: optimising patient's selection and radiation protection

Christian Loewe; Vienna/AT

1. To learn how to adapt CT acquisition protocol during pregnancy.
2. To become familiar with alternative imaging techniques.
3. To become familiar with alternative diagnoses.

B. Acute aortic disease in pregnancy

Ricardo P.J. Budde; Rotterdam/NL

1. To learn about risk factors and prevalence of acute aortic syndromes during pregnancy.
2. To learn how to adapt CT acquisition protocol during pregnancy.
3. To become familiar with alternative imaging techniques.

C. Imaging peripartum cardiomyopathy and other cardiac complications

Alexis Jacquier; Marseille/FR

1. To learn about prevalence and clinical presentation of cardiomyopathy during pregnancy.
2. To learn an appropriate diagnostic algorithm.
3. To become familiar with prognosis and outcome.

Live Q&A



ESR QuADRANT Session

ESR QuADRANT - Quality improvement through audit in diagnostic radiology, radiotherapy, and nuclear medicine: a European project on behalf of the European Commission

Jointly organised by the ESR Audit and Standards Subcommittee and EuroSafe Imaging

Friday, March 5, 2021 | 14:15-15:15

Moderator

David C. Howlett; Eastbourne/UK

Introduction

David C. Howlett; Eastbourne/UK

1. To appreciate the importance of clinical audit.
2. To review the role of audit within the EU-BSS.
3. To examine audit-related initiatives within the ESR.

The European Commission perspective

Georgi Simeonov; Luxembourg/LU

1. To understand the background of the European Commission.
2. To understand the background of the tender.
3. To consider the desired outcomes of QuADRANT.
4. To appreciate the role of clinical audit in enhancing patient care.

Aims, scope, and overview of the project

David C. Howlett; Eastbourne/UK

1. To review the structure of the project.
2. To examine the timelines and outputs of the work packages.
3. To consider the challenges and potential benefits for QuADRANT.

Findings and output from the initial workshop

Adrian Brady; Cork/IE

1. To discuss the proceedings of the initial QuADRANT workshop.
2. To highlight key outcomes and recommendations.
3. To consider how this workshop will drive remaining work packages.

Live Q&A: How to further integrate clinical audit into European radiology practice?



Refresher Course: Physics in Medical Imaging

**RC 113 - Blue skies and current trends in digital radiography (DR),
computed tomography (CT), and interventional radiology (IR)**

Friday, March 5, 2021 | 15:30-16:30

Moderator

Johan Helmenkamp; Stockholm/SE

A. Updates and future perspectives of DR technology

Juha Peltonen; Helsinki/FI

1. To learn about existing DR technologies.
2. To learn about the state of the art in DR imaging.
3. To predict future developments in DR imaging.

B. Updates and future perspectives of MG technology

Ioannis Sechopoulos; Nijmegen/NL

1. To learn about existing MG technologies.
2. To learn about the state of the art in MG imaging.
3. To predict future developments in MG imaging.

C. Updates and future perspectives of CT technology

Marc Kachelrieß; Heidelberg/DE

1. To learn about existing CT technologies.
2. To learn about the state of the art in CT imaging.
3. To predict future developments in CT imaging.

D. Updates and future perspectives of IR and angiography technology

Nicholas Marshall; Leuven/BE

1. To learn about existing IR technologies.
2. To learn about the state of the art in IR.
3. To predict future developments in IR.

Live Q&A: What can we expect from new detectors, equipment designs, and post-processing/reconstruction?



Special Focus Session

SF 8 - The most challenging bowel requests and how to deal with them

Friday, March 5, 2021 | 15:30-16:30

Moderator

Marc Zins; Paris/FR

Intestinal anastomosis: a leak or not a leak? That is the question

Damian J.M. Tolan; Leeds/UK

1. To learn about the diagnostic performance of imaging methods for detecting anastomotic leaks after GI surgery.
2. To learn about the optimal CT imaging protocol.
3. To understand the treatment of anastomotic leakages and indications for abscess drainage.

Obstructed defecation syndrome? Just do MRI-defecography

Dominik Weishaupt; Zurich/CH

1. To learn about the main functional anatomic landmarks in the radiological evaluation of obstructed defecation syndrome.
2. To address the diagnosis of anorectal dyssynergia with an emphasis on how imaging techniques such as dynamic pelvic floor MRI and evacuation proctography complement and enhance the role of anorectal physiology.
3. To understand how to use structured reporting methods for MRI of the pelvic floor in clinical practice.

Internal hernia? Not always going along with bowel obstruction

Sabine Schmidt Kobbe; Lausanne/CH

1. To learn about the clinical findings and the radiological evaluation of the most common internal hernias.
2. To learn about the optimal CT imaging protocol.
3. To specifically discuss the challenging diagnosis of collapsed closed-loop form of small bowel obstruction from internal hernia.

Live Q&A: How to improve diagnostic performance in challenging bowel requests?



Image Interpretation Quiz

IIQ - Star Wars - Episode XXI: the ESR strikes back

Friday, March 5, 2021 | 16:00-17:30

Moderator

Sue Barter; Bedford/UK

Introduction

Michael H. Fuchsjäger; Graz/AT

The Light Side

Yves Menu; Paris/FR

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

The Dark Side

Hans-Ulrich Kauczor; Heidelberg/DE

Adrian Brady; Cork/IE



Multidisciplinary Session

MS 1 - Venous thromboembolic disease

Friday, March 5, 2021 | 16:45-17:45

Moderator

Gerard O'Sullivan; Galway/IE

Haematology management in VTE: which patients for intervention, which patients for conservative? My clinical perspective

Ruth Gilmore; Galway/IE

1. To describe why some patients are more suitable for intervention and others less so.
2. To discuss the anticoagulation management around catheter directed thrombolysis and why fibrinogen even matters.
3. To discuss anticoagulation regimes post op and when to choose low molecular weight heparin vs warfarin vs NOAC.

Patient selection and interventional options in deep vein thrombosis

Douglas Mulholland; London/UK

1. To understand which patients I am keen to treat and why.
2. To show which treatment options I favour.
3. To share my worst disaster in DVT intervention and how we managed it.

Patient selection and interventional options in pulmonary embolus?

Stephen T. Kee; Dublin/IE

1. To understand which patients I am keen to treat and why.
2. To show which treatment options I favour.
3. To share my worst disaster in PE intervention and how we managed it.

Precise, patient-directed imaging in DVT and PE

Carsten Arnuldussen; Maastricht/NL

1. To describe the various imaging modalities for DVT and PE.
2. To describe my preferred modalities for DVT and PE.
3. To discuss future directions, particularly with respect to MRV and thrombus aging.

Multidisciplinary case presentation

Gerard O'Sullivan; Galway/IE

Live Q&A



E³ - ECR Master Class

E³ 1726 - Post-treatment emergencies in oncologic patients

Friday, March 5, 2021 | 18:00-19:00

Moderator

Digna R. Kool; Amsterdam/NL

A. Chest

Helmut Prosch; Vienna/AT

1. To become familiar with the modern approach to malignant chest tumour therapy.
2. To learn how to differentiate clinically important complications.
3. To understand how to look for the early signs of severe and urgent conditions.

B. Abdomen

Raffaella Basilico; Chieti/IT

1. To learn about different therapies used in abdominal tumours.
2. To become familiar with possible complications.
3. To understand the effectiveness of imaging modalities in the evaluation of emergent complications.

C. How can interventional radiologists help in the management of oncological treatment complications?

Krzysztof K. Pyra; Lublin/PL

1. To understand the role of interventional radiology in modern tumour therapy and the complications.
2. To become familiar with interventional techniques used in the treatment of complications of different tumour therapies.
3. To learn which tumour therapy complications can be treated with interventional radiology.

Live Q&A: What is the impact of complication findings on the continued management of oncologic patients?



Joint Session of the ESR and EIBIR

ESR/EIBIR - Funding the future of research in artificial intelligence (AI) and cardiac imaging: reports from the ESR Research Seed Grant projects

Friday, March 5, 2021 | 18:00-19:00

Moderators

Marc Dewey; Berlin/DE

Gabriel P. Krestin; Rotterdam/NL

Cardiothoracic ratio derived from cardiac MRI: how does it correlate with chest radiographs?

Monika Arzanauskaite; Liverpool/UK

1. To learn about the reliability of cardiothoracic ratio as an estimate of cardiac enlargement.
2. To learn about the project progress.

RISK: risk maps using T2 mapping and diffusion MR sequences of the prostate

Liliana Caldeira; Cologne/DE

1. To learn about risk maps using T2 mapping and diffusion MR sequences.
2. To learn about the project progress.

MRI-assessed myocardial deformation of the systemic right ventricle in patients with transposition of the great arteries: a cross-sectional study

Maja Hrabak Paar; Zagreb/HR

1. To learn about MRI-assessed myocardial deformation.
2. To learn about the project progress.

MR-based biomarkers of tumour hypoxia

Ieva Kurilova; Amsterdam/NL

1. To learn about AI-driven MR-based imaging of tumour hypoxia.
2. To learn about the project progress.

Value of cardiac magnetic resonance imaging derived temporal myocardial strain pattern for non-invasive diagnosis of myocarditis

Fabian C. Laqua; Greifswald/DE

1. To learn about spatio-temporal cardiac motion patterns.
2. To learn about the project progress.

Impact of myocardial motion on the relationship between transmitral flow and left ventricular filling rates

Clemens Reiter; Graz/AT

1. To learn about compressed sensing whole-heart 4D-Flow imaging.
2. To learn about the project progress.

CT-based radiomics analysis to predict malignancy in patients with intraductal papillary mucinous neoplasm (IPMN) of the pancreas

David Tobaly; Clichy/FR

1. To learn about T-based radiomics analysis in cancer.
2. To learn about the project progress.

Towards automated TNM-staging of NSCLC in FDG-PET/CT: evaluation of combined deep learning strategies

Thomas Weikert; Basle/CH

1. To learn about the integration of an algorithm for automated detection of cancer.
2. To learn about the project progress.

Live Q&A



Healthcare Professionals in Focus

IF 2 - Resilient organisations: the role of the organisation in ensuring employee vitality, engagement, and productivity

Friday, March 5, 2021 | 18:00-19:30

Moderator

M.G. Myriam Hunink; Rotterdam/NL

Employee silence and employee voice as well-being factors in building resilient organisations

Anthony Montgomery; Thessaloniki/GR

1. To learn about how employee silence/voice contributes to burnout among healthcare professionals.
2. To better connect clinical practice and healthcare professional well-being in developing preventive interventions.
3. To become familiar with possible interventions at the organisational level that reduces employee silence and enables sharing about work practices.

From chronic stress to vitality and engagement

Wilmar Schaufeli; Utrecht/NL

1. To understand the role of job demands and resources on employee wellbeing.
2. To understand the role of psychological safety and meaning to employee engagement.
3. To shift the focus from the prevention of chronic stress towards positive work experience.
4. To appreciate the need of a systems approach in healthcare organisations.

How to create a resilient organisation

Diane Sliwka; San Francisco, CA/US

1. To learn about interventions at the organisational level that promote well-being.
2. To understand what effects can be expected from organisational interventions.
3. To appreciate the complexity of developing a program to foster organisational resilience.
4. To appreciate the increase in complexity due to the pandemic.

Economic considerations

Stijntje Dijk; Rotterdam/NL

1. To understand the economic consequences of chronic stress and burnout among healthcare providers.
2. To appreciate the widespread economic effects of burnout.
3. To recognise that prevention can lead to enormous cost-savings.

Live Q&A: Interventions at the organisational level



E³ - Rising Stars Programme: Basic Sessions

BS 8 - Breast imaging

Organised by the ESR

Friday, March 5, 2021 | 19:45-20:45

Moderator

Francesco Sardanelli; San Donato Milanese/IT

Inflammation and benign lesions

Gábor Forrai; Budapest/HU

1. To present current imaging techniques to evaluate breast inflammation and benign lesions.
2. To demonstrate the most important imaging findings.

Lesions of uncertain malignant potential (B3)

Mihai Lesaru; Bucharest/RO

1. To become familiar with the most common imaging findings in B3 lesions.
2. To identify the most appropriate imaging modality.

Malignant lesions

Christiane K. Kuhl; Aachen/DE

1. To present current imaging techniques to evaluate malignant breast lesions.
2. To demonstrate the most important imaging findings.

Live Q&A



New Horizons Session

NH 1 - Visualising obesity: the new epidemic

Friday, March 5, 2021 | 19:45-20:45

Moderator

Antonia Arjonilla; Madrid/ES

Fat distribution and risk

Ilan Shelef; Beer Sheva/IL

1. To review the different methods for measuring body fat.
2. To identify high risk obesity phenotypes.
3. To recognise how distribution of fat affects imaging acquisition.
4. To provide strategies for better quality imaging based on fat distribution.

Brain alterations

Jeroen van der Grond; Leiden/NL

1. To review the state-of-the-art neuroimaging research for alterations of eating behaviours in obesity and relation to emotions.
2. To describe grey and white matter alterations in obesity.
3. To assess neuroinflammation in obesity by DTI.
4. To try to define how bariatric surgery can reverse obese related effects in the brain.

Thoracic CT in obesity

Susan J. Copley; London/UK

1. To establish a strategy for improving quality imaging of chest plain films and chest CT.
2. To identify chest CT imaging biomarkers with prognostic implications.
3. To show the correlation between obesity and mosaic attenuation, end respiratory air trapping and tracheal shape.
4. To determine reversibility of signs of airway inflammation after bariatric surgery. Lung CT as a marker of clinical improvement.

Cardiovascular imaging

Jens Bremerich; Basle/CH

1. To achieve technical optimisation of CT cardiovascular studies in obese population.
2. To provide a strategy for optimising contrast injection (total amount and rate) and improve vessel conspicuity.
3. To review the association of obesity with coronary disease, hypertension, atrial fibrillation and heart failure.
4. To be aware of the obesity paradox.

Fatty liver and beyond

Giuseppe Brancatelli; Palermo/IT

1. To learn about liver function capacity in obesity.
2. To get familiar with the quantification of liver fat with MRI and proton density fat fraction (PDFF).
3. To assess the feasibility of non-invasive monitoring of fat after bariatric surgery.
4. To explore approaches to pancreatic fat quantification.

Live Q&A: What do you think should be the role of radiology in the obesity epidemic? Should we lead the pursuit to universal access to adequate diagnostic imaging techniques for the obese population?



Special Focus Session

SF 19 - Big data use and governance: top tips for radiographers

Friday, March 5, 2021 | 19:45-20:45

Moderators

Hans-Ulrich Kauczor; Heidelberg/DE

Maryann Hardy; Bradford/UK

What can big data tell us about our clinical services? Leveraging data from the Scottish National PACS

Jonathan McConnell; Glasgow/UK

1. To understand the types of data and data assimilations undertaken.
2. To become familiar with the analysis processes.
3. To consolidate knowledge about the outcomes and impact of big data analysis.
4. To learn how radiographers can get involved with similar initiatives.

How do you manage and protect all that data? Learning from multicentre studies

Mark F. McEntee; Cork/IE

1. To understand data protection principles, data security, and encryption.
2. To appreciate the processes for data sharing
3. To learn about the communication between systems when a patient opts-out of data sharing.

Artificial intelligence (AI): data-driven decision making in imaging

Robin Decoster; Brussels/BE

1. To learn about the applications of AI for radiography.
2. To become familiar with the data-driven decisions.
3. To consolidate knowledge about ethics and responsibilities for AI decision-making.
4. To understand the potential augmentation of the radiographer's role.

Live Q&A: Should radiographers evolve to be clinical imaging computer/data scientists?



Transatlantic Course of ESR and RSNA (Radiological Society of North America): Stroke Imaging and Endovascular Treatment: Now and the Future

TC 328 - Endovascular treatment

Friday, March 5, 2021 | 19:45-20:45

Moderators

Jean-Pierre Pruvo; Lille/FR

Raman Uberoi; Oxford/UK

A. Endovascular treatment of acute ischaemic stroke: practical pearls

Ansgar Berlis; Augsburg/DE

1. To learn about endovascular treatment in ischaemic stroke.
2. To understand the different approaches of endovascular treatment.
3. To appreciate the importance of efficient workup and time metrics in angiosuite.

B. Where to perform and how to organise a thrombectomy

Jeremy Heit; Stanford, CA/US

1. To learn about the number of persons and regulatory recommendations.
2. To understand the optimal organisation in angiosuite and workflow.
3. To appreciate the implications and management for continuity of care.

C. Interactive discussion with illustrative cases of endovascular thrombectomy

Ansgar Berlis; Augsburg/DE

Gregoire Boulouis; Paris/FR

Jeremy Heit; Stanford, CA/US

1. To learn about the tricks and tips of endovascular treatment using illustrative cases.
2. To appreciate the optimal time metrics in angiosuite.
3. To become familiar with the different approaches (stent retriever, ADAPT) and challenging cases (tandem occlusions, distal occlusions).

Live Q&A



EFOMP Workshop: New European Quality Controls for State-of-the-Art Innovations in Radiology and Artificial intelligence: The Role of the Medical Physicist

EF 1 - European quality controls (QC) in diagnostic and interventional radiology

Saturday, March 6, 2021 | 08:00-09:00

Moderator

Lucie Sukupova; Prague/CZ

Introduction

Paddy Gilligan; Dublin/IE

1. To learn the concept of new QC protocols.
2. To understand the opportunities provided by the standardisation of QC protocols in the optimisation process.
3. To become familiar with how the new protocols can be implemented in a practical manner.

Developing a QC protocol in dual breast tomosynthesis

Ruben van Engen; Nijmegen/NL

1. To learn why a QC protocol is necessary in breast tomosynthesis.
2. To understand the concepts of the new QC protocol, its challenges and limitations, and its relevance to diagnostic accuracy and safety.
3. To become familiar with how the new protocol can be implemented in a practical manner.

Developing a QC protocol in interventional systems

Annalisa Trianni; Udine/IT

1. To learn why a QC protocol is necessary in modern interventional systems.
2. To understand the concepts of the new QC protocol, its challenges and limitations, and its relevance to diagnostic accuracy and safety.
3. To become familiar with how the new protocols can be implemented in a practical manner.

Developing a QC protocol in PET/CT and PET/MRI

Roberta Matheoud; Novara/IT

1. To learn why a QC protocol is necessary in modern hybrid systems.
2. To understand the concepts of the new QC protocol, its challenges and limitations, and its relevance to diagnostic accuracy and safety.
3. To become familiar with how the new protocols can be implemented in a practical manner.

Live Q&A



Professional Challenges Session

PC 1 - Subspecialisation vs despecialisation

Saturday, March 6, 2021 | 08:00-09:00

Moderator

Adrian Brady; Cork/IE

Current clashes in interventional radiology

Laura Crocetti; Pisa/IT

1. To learn about the current landscape of the organisation of interventional radiology services in different European countries.
2. To discuss the need of further subspecialisation within interventional radiology.
3. To understand how education is organised and could be improved to train interventional radiologists.

Role of new professional profiles: the role of a consultant radiographer reporting plain-film radiographs within a clinical imaging team

Robert Milner; Rotherham/UK

1. To learn about how a plain-film radiographer reporting service can be safely developed.
2. To understand how a hospital can think outside the box and embrace new ways of working with no additional risk to patients or staff.
3. To appreciate how radiographers and radiologists can work together to free up the radiologist's time for other activities and to provide a plain-film radiographer-led service that is amongst the best and most responsive in the UK.

What do the "customers" referring physicians or patients want and how to provide it?

Birgit Bauer; Abensberg/DE

1. To learn about the patients' questions, behaviour, and needs when they come into a radiology department.
2. To understand what is necessary to support patients and doctors, what information is expected, that patients are no longer silent consumers and are now active decision makers, and to understand the needs of the referring doctors.
3. To appreciate that patients want to be supported but also want to cooperate with their doctors to identify symptoms and needs as fast as possible, and to receive the right diagnose and medication as soon as possible.
4. To become familiar with digital solutions and tools to help patients and colleagues with the right information and data.

Are "imaging specialists" in other disciplines a threat to radiology?

Hans-Ulrich Kauczor; Heidelberg/DE

1. To consolidate knowledge about the value and uniqueness of general and subspecialised radiology.
2. To appreciate the added value of multidisciplinary teams with shared expertise.
3. To learn about the opportunities of radiologists in future workflow scenarios.

Live Q&A: How to implement subspecialisation into a department: perspectives for large and small departments



Refresher Course: Vascular

RC 415 - Vasculitis and inflammation in arteries

Saturday, March 6, 2021 | 09:15-10:15

Moderator

Elias N. Brountzos; Athens/GR

A. Vasculitis and inflammation in peripheral arteries

Luc Defreyne; Gent/BE

1. To learn about classification and aetiology.
2. To understand radiological imaging techniques and differential diagnosis.
3. To review the treatment options.

B. Vasculitis and inflammation in neurocranial arteries

Hans Kortman; Tilburg/NL

1. To learn about radiological imaging techniques.
2. To understand aetiology and differential diagnosis.
3. To become familiar with the treatment options.

C. Nuclear imaging of vasculitis and inflammation in arteries

Irene A. Burger; Zurich/CH

1. To discuss the nuclear medicine options of inflammatory arterial disease.
2. To provide optimal nuclear medicine strategies for subacute and chronic inflammatory disease of the arteries.
3. To become familiar with the signs of inflammatory vs non-inflammatory disease of the arteries.

Live Q&A



Special Focus Session

SF 17 - Male erectile dysfunction (ED)

Saturday, March 6, 2021 | 09:15-10:15

Moderator

Boris Brkljačić; Zagreb/HR

What the urologists expect from the radiologist?

Nicola Pavan; Trieste/IT

1. To understand the clinical correlations between imaging and erectile dysfunction.
2. To understand the clinical indication for imaging studies.
3. To analyse how imaging is influencing the clinical management of a patient with erectile dysfunction.

Penile Doppler

Paul S. Sidhu; London/UK

1. To understand and learn to perform a dynamic penile Doppler US.
2. To analyse the spectral Doppler waveforms in erectile dysfunction.
3. To learn about the usefulness of a Doppler US in priapism.
4. To obtain an overview of other abnormalities of the penis seen on US.

Role of MRI

Laurence Rocher; Le Kremlin-Bicêtre/FR

1. To assess penile MRI adequate protocols regarding the suspected pathology.
2. To become familiar with normal MRI findings in flaccidity and erectile status.
3. To identify pathological findings such as Peyronie's disease, fibrosis, or rare tumours involved in erectile dysfunction.

Interventional radiology in diagnosis and management of ED

Charles Tapping; Oxford/UK

Live Q&A: What is the role of imaging and image-guided interventions in erectile dysfunction?



E³ - ECR Master Class

E³ 126 - Update of diffusion-weighted MRI

Saturday, March 6, 2021 | 10:30-11:30

Moderator

Sören Rafaelsen; Vejle/DK

A. Technical aspects of diffusion-weighted imaging (DWI)

Nickolas Papanikolaou; Lisbon/PT

1. To learn about the strengths and shortcomings of different DWI techniques.
2. To understand how to integrate and optimise DWI in MRI protocols.
3. To be able to avoid pitfalls in DWI sequences.

B. DWI of abdominal organs

Ines Santiago; Lisbon/PT

1. To learn how to integrate DWI in your abdominal MRI protocol.
2. To understand the diagnostic value of DWI for abdominal pathologies.
3. To be able to deal with technical difficulties of DWI in the upper abdomen.

C. DWI of pelvic organs

Evis Sala; Cambridge/UK

1. To understand the correct implementation of DWI for pelvic imaging.
2. To learn how to avoid imaging artefacts in pelvic DWI.
3. To become familiar with typical findings and pitfalls of pelvic DWI.

Live Q&A



Special Focus Session

SF 26 - Recent developments in diagnosing congenital and acquired vascular and lymphatic disorders in children: when, how, and why?

Saturday, March 6, 2021 | 10:30-11:30

Moderator

Willemijn M. Klein; Nijmegen/NL

Treatment of vascular disorders in children

Wibke Uller; Regensburg/DE

1. To learn about the indications for conservative and interventional treatment.
2. To understand the potential applications and techniques of interventions.
3. To discuss the risks and limitations.

Diagnosing lymphatic disorders in children

Pär Gerwins; Uppsala/SE

1. To learn about typical lymphatic pathologies in children.
2. To learn about the techniques of MR lymphography.
3. To discuss the appropriate work-up of lymphatic disorders.

Interventional treatment of lymphatic disorders

Ralph Gnannt; Zurich/CH

1. To learn about the indications for conservative and interventional treatment.
2. To understand the potential applications and techniques of interventions.
3. To discuss the risks and limitations.

Live Q&A: How to optimise diagnosis and treatment of lymphatic and vascular disorders in children?



Hands-on Workshop: Cardiac CT

HW - t.b.a.

Saturday, March 6, 2021 | 10:30-12:45

Cardiac CT: indications and how to select your patients

Marc Dewey; Berlin/DE

Cases

Viktoria Wieske; Berlin/DE

Coronary arteries: anatomy and calcium scoring

Rozemarijn Vliegenthart; Groningen/NL

Cases

Giuseppe Muscogiuri; Milan/IT

BREAK

CTA: patient preparation and how to perform cardiac CT

Viktoria Wieske; Berlin/DE

Cases

Marc Dewey; Berlin/DE

Analysis and CT report: how to systematic report and manage cardiac and non-cardiac findings

Rozemarijn Vliegenthart; Groningen/NL

Cases

Firdaus A.A. Mohamed Hoesein; Utrecht/NL



Coffee & Talk (open forum) Session

C 5 - Communicating with patients: adding value to the patient's first encounter with radiology

Organised by the ESR Value-Based Radiology Subcommittee

Saturday, March 6, 2021 | 11:45-12:45

Moderator

Adrian Brady; Cork/IE

I'm the patient, not an inanimate object: talk to me!

Judy Birch; Poole, Dorset/UK

1. To learn about the importance of radiologists listening to their patients.
2. To appreciate the need to inform patients about their care at the appropriate level, taking into account their history and what they say.
3. To understand the need for radiologists to prepare background information for patients.

Ultrasound: we're touching the patients, why not talk to them too?

Elena E. Drakonaki; Iraklion/GR

1. To appreciate the importance of a good level of communication between the radiologist and the patient during US examinations.
2. To discuss the pros and cons of communicating the results of the US scan to the patient.
3. To understand the challenges associated with verbal and non-verbal communication during US scanning.

Interventional radiology: if we don't explain what we're doing, who else should?

Adrian Brady; Cork/IE

1. To learn the responsibility of the interventional radiologist to explain procedures to patients.
2. To appreciate how direct explanations can alleviate patient anxiety.
3. To understand that interventional radiology represents a valuable opportunity to engage directly with patients.

Live Q&A



Special Focus Session

SF 22 - My three top tips in post-mortem imaging (PMI)

Saturday, March 6, 2021 | 11:45-12:45

Moderator

Rick R. van Rijn; Amsterdam/NL

Post-mortem imaging: how to do it

Jeroen Kroll; Maastricht/NL

1. To discuss the role of post-mortem imaging.
2. To discuss the organisational and logistic issues you will experience.
3. To discuss the added value of trained post-mortem radiographers.

Foetal and perinatal PMI

Owen J. Arthurs; London/UK

1. To understand how to choose the best imaging modality.
2. To learn about normal post-mortem changes.
3. To practice "safe" image interpretation.

Paediatric PMI

Guillaume Gorincour; Marseille/FR

1. To review and explain the scope of post-mortem foetal ultrasound.
2. To describe a simple technique of perinatal post-mortem angio-CT.
3. To show the relevance of PMCT in suspected neonaticide.

Adult neuro PMI

Thomas Ruder; Berne/CH

1. To understand how post-mortem changes mimic or modify the appearance of pathology on PMI.
2. To learn how reporting PMI can improve your clinical radiology reports.
3. To become familiar with the potential for knowledge transfer between PMI and clinical radiology.

Adult trauma and musculoskeletal PMI

Krzysztof Wozniak; Krakow/PL

1. To present issues referring to PMCT evaluation of victims of transportation accidents leading to forensic medical reconstruction of the critical event.
2. To deliver examples of PMCT documentation of firearm injuries giving the opportunity for reconstruction of the track(s) of the projectile.
3. To show results of PMCT-Angiography evaluation of stab wounds as the background of medico-legal reconstruction of injury tracks and the course of the critical event.

Adult chest PMI

Sue Kearney; Preston/UK

1. To recognise CTPM appearances of various cardiothoracic diseases and how to use this information to offer a cause of death for the coroner.
2. To learn about the use of lung ventilation and coronary angiography.
3. To understand the limitations of CTPM and when to consider invasive autopsy.

Adult abdomen PMI

Sarah Heinze; Heidelberg/DE

1. To learn about typical post-mortem abdominal changes.
2. To recognise the common pitfalls of abdominal post-mortem imaging.
3. To understand that special knowledge for post-mortem imaging is necessary.

Live Q&A: PMI: complement or replacement of autopsy?



E³ - The Beauty of Basic Knowledge: Breast

E³ 24B - Basis of breast ultrasound and multimodality readings

Saturday, March 6, 2021 | 14:15-15:15

Moderators

Panagiotis Kapetas; Vienna/AT

Karen Kinkel; Chêne-Bougeries/CH

Practical ultrasound of the breast: how I do it

Alexandra Athanasiou; Athens/GR

1. To learn about patient positioning and image quality control.
2. To understand the value of colour Doppler ultrasound and elastography.
3. To learn about applying ultrasound breast imaging reporting and data systems (BIRADS).

Integrating ultrasound findings into the final mammography report

Eva M. Fallenberg; Munich/DE

1. To understand how to assess concordance between mammography and ultrasound results.
2. To learn to give a final recommendation (no further action required, short-term follow-up, biopsy, other imaging modality, etc.).

Live Q&A



ISRRT meets Singapore

Meets 6 - Radiography (imaging and therapy) services in Singapore

Saturday, March 6, 2021 | 14:15-15:15

Moderators

Donna Newman; Fargo, ND/US

Napapong Pongnapang; Bangkok/TH

Introduction to Singapore's healthcare system and the radiography profession

Denise Choong Ai Wen; Singapore/SG

1. To learn about Singapore's population and healthcare concerns.
2. To learn about the structure and financing of Singapore's health system.
3. To understand the radiography profession as part of Singapore's healthcare system.

Radiology services in Singapore

Michael Ong Kah Leong; Singapore/SG

1. To become familiar with the types of radiography and radiation therapy services provided in Singapore.
2. To understand how Singapore's population accesses radiology services

The Allied Health Professions Council (AHPC) and regulation of professionals

Gabriel Leong Kok Wah; Singapore/SG

1. To understand the rationale for Singapore's AHPC and how radiographers and radiation therapists are regulated.
2. To obtain an overview of the radiography career opportunities in Singapore and hiring difficulties.

Singapore's radiography education system

Tan Chek Wee; Singapore/SG

1. To learn about the history and current status of Singapore's radiography education system.
2. To appreciate how we are preparing for professional challenges in the future.

Live Q&A



Coffee & Talk (open forum) Session

C 12 - Innovations in breast imaging: keys to funding success

Organised by EIBIR

Saturday, March 6, 2021 | 15:30-16:30

Moderator

Gabriel P. Krestin; Rotterdam/NL

Innovation in the diagnosis of breast cancer using ultrasound and diffuse optics

Pietro Panizza; Milan/IT

1. To learn about the developments of the SOLUS research project.
2. To learn about and understand the benefits of combined use of ultrasound and optical tomography.

Digital hybrid breast PET/MRI for enhanced diagnosis of breast cancer

Thomas H. Helbich; Vienna/AT

1. To learn about the development of the HYPMED research project.
2. To learn about and understand the benefits of digital hybrid PET/MR in breast cancer imaging.

The impact of breast MRI on surgical planning and reoperation rate

Francesco Sardanelli; San Donato Milanese/IT

1. To learn about the MIPA clinical study.
2. To understand the impact of breast MRI on surgical planning and reoperation rates.

Funding opportunities under Horizon Europe

Peter Gordebeke; Vienna/AT

1. To learn about Horizon Europe.
2. To learn about European research funding opportunities.

EIBIR's support services: key for funding success

Pamela Zolda; Vienna/AT

1. To learn about EIBIR's support services.
2. To understand how EIBIR can increase funding success.

Live Q&A



EFRS Workshop

EFRS WS - Radiographers and patient-centred care

Saturday, March 6, 2021 | 15:30-16:30

Moderators

Charlotte Graungaard Falkvard;
Frederiksberg/DK

Birgit Bauer; Abensberg/DE

What constitutes patient-centred care in medical imaging?

Rodrigo García Gorga; Sabadell/ES

1. To define the keys concepts of patient-centred care.
2. To outline the potential benefits of patient-centred care for patients.
3. To identify the challenges and opportunities for successfully implementing patient-centred care.

Successfully achieving optimal patient experience within medical imaging

Louise Harding; Warrington/UK

Paula Park; Warrington/UK

1. To understand how technological developments can assist in improving radiographic practice.
2. To appreciate how changes in patient trends can impact on radiographic practice.
3. To understand how radiography education needs to adapt to ensure optimal radiography practice.

What patients require from their experience within a radiology department

Birgit Bauer; Abensberg/DE

1. To appreciate the patient's requirements when attending imaging examinations.
2. To consider how patients can contribute to implementing more patient-centred approaches.
3. To identify the future challenges and opportunities for delivering patient-centred care within medical imaging.

What can the EFRS do at a European level to promote patient-centred care?

Andrew England; Salford/UK

1. To outline the role of the EFRS in promoting patient-centred care.
2. To explain the EFRS initiatives for promoting patient-centred care across Europe.
3. To appreciate other opportunities for developing and promoting patient-centred care within individual organisations.

Live Q&A: Patient-centred care is not a barrier to improving departmental efficiency

Refresher Course: Chest

RC 404 - Thoracic manifestations of COVID-19

Saturday, March 6, 2021 | 15:30-16:30

Moderator

Annemiek Snoeckx; Antwerp/BE

A. Acute findings and late sequelae

Nicola Sverzellati; Parma/IT

1. To recognise acute findings on radiographs and CT.
2. To evaluate late findings on CT.
3. To gain confidence in identifying imaging patterns, even when PCR is negative.

B. COVID-19: a vascular pulmonary disease

Marie-Pierre Revel; Paris/FR

1. To learn about pulmonary vascular injury and thrombosis in COVID-19.
2. To understand the evolution of vascular pathology in the lungs.
3. To learn about optimal imaging protocols for patients in intensive care.

C. COVID-19 in patients with pre-existing lung diseases

Fergus Gleeson; Oxford/UK

1. To distinguish current pathology from pre-existing lung anomalies.
2. To understand how underlying lung disease affects prognosis in COVID-19.
3. To know when to plan follow-up after COVID-19.

Live Q&A



E³ - ECR Master Class

E³ 426 - Autoimmune thoracic diseases

Saturday, March 6, 2021 | 16:45-17:45

Moderator

Sujal R. Desai; London/UK

A. Relapsing polychondritis

Ines Saab; Paris/FR

1. To learn about the pathophysiology and clinical manifestations of this disease.
2. To learn when to suggest this diagnosis on CT.
3. To review the other causes of tracheobronchial wall thickening.

B. Alveolar proteinosis

Anastasia Oikonomou; Toronto, ON/CA

1. To learn about the CT manifestations of alveolar proteinosis.
2. To review the other causes of crazy paving on CT.
3. To be aware of infectious complications, especially superinfection by Nocardia.

C. Goodpasture syndrome and differentials

Anand Devaraj; London/UK

1. To learn about the pathophysiology and the clinical manifestations of this disease.
2. To learn about CT signs of intra-alveolar haemorrhage.
3. To review the other causes of intra-alveolar haemorrhage.

Live Q&A



New Horizons Session

NH 3 - Thera(g)nostics

Saturday, March 6, 2021 | 16:45-17:45

Moderator

Clemens C. Cyran; Munich/DE

Thera(g)nostics: what is it all about?

Frederik L. Giesel; Heidelberg/DE

1. To become familiar with basic hypotheses of thera(g)nostics.
2. To understand the underlying mechanisms of target selection for imaging and therapy.
3. To know about the most relevant clinical fields for theragnostic concepts.
4. To learn about the key translational challenges of thera(g)nostics towards clinical care.

Novel thera(g)nostic twins for imaging and therapy

Hans-Jürgen Wester; Munich/DE

1. To learn about the most successful therapeutic twins in clinical use.
2. To understand which inherent properties are most relevant to their success.
3. To become familiar with candidate compounds bearing high translational potential.
4. To know about the most relevant interfaces between radiochemistry and clinical research for clinical translation of novel thera(g)nostic compounds.

Molecular biomarkers for immuno-imaging

Elisabeth de Vries; Groningen/NL

1. To learn about the concept of imaging biomarkers.
2. To become familiar with the basics of immuno-imaging.
3. To know about the most relevant clinical applications of immuno-imaging.
4. To understand the main challenges and limitations of immuno-imaging for clinical translation.

Live Q&A: Does hybrid imaging improve patient outcome?



E³ - ECR Master Class

E³ 1126 - Acute ischaemic stroke in the era of mechanical thrombectomy

Saturday, March 6, 2021 | 18:00-19:00

Moderator

Naci Kocer; Istanbul/TR

A. Mechanical thrombectomy in 2021

Ansgar Berlis; Augsburg/DE

1. To learn about the clinical evidence of mechanical thrombectomy.
2. To become familiar with the technical aspects of mechanical thrombectomy.
3. To understand the importance of appropriate training.

B. The role of vascular imaging

Catherine Oppenheim; Paris/FR

1. To know how to perform CT and MRI angiography.
2. To report vascular occlusion and collaterality.
3. To become familiar with recanalization prognosis.

C. The role of brain imaging

Omer Eker; Lyon/FR

1. To learn how to report ischaemia (necrosis and penumbra) using CT and MRI.
2. To learn how to identify patients at risk of haemorrhage.
3. To become familiar with post-thrombectomy follow-up.

Live Q&A



EuroSafe Imaging Session

EU 5 - "Yield the shield": new approaches and challenges in the use of gonadal shielding during radiography in children

Saturday, March 6, 2021 | 18:00-19:00

Moderator

Guy Frija; Paris/FR

Introduction

Donald P. Frush; Durham, NC/US

1. To provide summary justification for revisiting routine gonadal shielding during abdomiopelvic radiography in children: domain covered and why are we doing this.
2. To present the outline of topics to be covered: roles, challenges, and models for change.
3. To introduce the speakers and their qualifications.

The past journey of gonadal shielding and the role of regulation and the U.S. radiologist

Donald P. Frush; Durham, NC/US

1. To learn the background of gonadal shielding during radiography and the efforts and organisations currently involved in the United States.
2. To become familiar with the role of the US radiologist in changes in practice of routine gonadal shielding.
3. To understand the current regulations and guidance for the use of gonadal shielding in the U.S.

The current reasons for change and the role of regulation and the European radiologist

Joanna Kasznia-Brown; Taunton/UK

1. To learn about the scientific evidence supporting a change in practice for routine gonadal shielding.
2. To become familiar with the role of the European radiologist to changes in practice of routine gonadal shielding.
3. To understand the current regulations and guidance for the use of gonadal shielding in Europe.

Front-line culture, challenges, and strategies for change: European perspective

Joana Santos; Coimbra/PT

1. To learn about the role of the radiographer/technologist community in Europe for routine gonadal shielding (certification, training, licensing etc.).
2. To appreciate the complexities in changes to practice, including patient/caregiver engagement.
3. To identify successful models and ongoing efforts for change in practice.

Front-line culture, challenges, and strategies for change in shielding practice: U.S. perspective

Quentin T. Moore; Toledo, OH/US

1. To learn about the role of the radiographer/technologist community in Europe for routine gonadal shielding (certification, training, licensing etc.).
2. To appreciate the complexities in changes in practice, including patient/caregiver engagement.
3. To identify the salient ongoing efforts and suggest models for change in shielding practice.

Live Q&A: "Easier said than done?"



Multidisciplinary Session

MS 3 - Sarcoma

Saturday, March 6, 2021 | 18:00-19:00

Moderator

Jasminka Igrec; Graz/AT

The role of pathology to diagnose soft tissue tumours

Bernadette Liegl-Atzwanger; Graz/AT

1. To describe the role of the pathologist in the multidisciplinary approach to soft-tissue tumours.
2. To learn about the changes in WHO 2020.
3. To understand the role of molecular pathology in soft tissue sarcomas.

Added value of MRI in soft tissue

Jasminka Igrec; Graz/AT

1. To describe the role of radiology in the multidisciplinary approach to soft-tissue tumours.
2. To demonstrate the imaging possibilities of advanced MRI imaging techniques in sarcoma imaging.
3. To discuss the current use and future role of advanced imaging MRI techniques in sarcoma imaging.

The dilemma of surgical margins: what do we need to solve it?

Andreas Leithner; Graz/AT

1. To describe the role of the orthopaedic surgeon in the multidisciplinary approach to soft-tissue tumours.
2. To discuss the new challenges in operative treatment of patients with sarcoma.

Challenges in immunotherapy in sarcoma

Joanna Szkandera; Graz/AT

1. To describe the role of the oncologist in the multidisciplinary approach to soft-tissue tumours.
2. To explain how immunotherapy works.
3. To verify in which sarcoma subtypes immunotherapy should be used.

Multidisciplinary case presentation

Iva Brcic; Graz/AT

Marko Bergovec; Graz/AT

Jasminka Igrec; Graz/AT

Live Q&A



Healthcare Professionals in Focus

IF 3 - The science of meditation and mindfulness

Saturday, March 6, 2021 | 18:00-19:30

Moderator

M.G. Myriam Hunink; Rotterdam/NL

Brain imaging of meditation

Sarah Lazar; Boston, MA/US

1. To learn about the effects on the brain from practicing mindfulness, meditation, or yoga.
2. To appreciate the structural changes in the brain seen on imaging.
3. To understand the implications of these findings.

The clinical effectiveness of mindfulness

Willem Kuyken; Oxford/UK

1. To learn about the results of randomised controlled trials studying mindfulness.
2. To appreciate the clinical effectiveness of mindfulness in dealing with stress, anxiety, and depression.
3. To understand what these results imply for chronic stress and burnout.

Live Q&A: Neuroplasticity and mindfulness



E³ - Rising Stars Programme: Basic Sessions

BS 14 - Radiologic anatomy: head and neck

Organised by the ESOR

Saturday, March 6, 2021 | 19:45-20:45

Moderator

Minerva Becker; Geneva/CH

Neck spaces

Nikoleta I. Traykova; Plovdiv/BG

1. To learn the anatomy of the neck spaces.
2. To discuss the current imaging techniques for their evaluation.
3. To describe the imaging appearance of the most common pathological findings.

Temporal bone

Jan Walther Casselman; Bruges/BE

1. To learn which technique is best suited to visualise specific anatomical structures of the temporal bone.
2. To recognise the clinically most important anatomical structures of the middle and inner ear.
3. To learn how the anatomical structures of the temporal bone appear in the transverse, coronal, and double oblique plane.

Larynx

Roberto Maroldi; Brescia/IT

1. To understand the anatomy and signals of the cartilage framework of the larynx.
2. To learn the surgical subdivision of the paraglottic space of the larynx into its key compartments.
3. To learn the anatomy and signals of the muscles within the larynx.

Live Q&A



Refresher Course: Artificial Intelligence and Machine Learning

RC 205 - How artificial intelligence (AI) has changed radiology

Saturday, March 6, 2021 | 19:45-20:45

Moderator

Elmar Kotter; Freiburg/DE

A. How to integrate AI into the clinical workflow

Tim Leiner; Utrecht/NL

1. To learn how different AI systems can be integrated to support the radiological workflow.
2. To understand the benefits of integrating AI systems into the clinical routine.
3. To learn the challenges related to the AI workflow.

B. AI in automated organs segmentation

Ana Jiménez-Pastor; Valencia/ES

1. To learn how AI has enabled automated image analysis through human-like performance in segmentation.
2. To appreciate the main AI network architectures allowing for multiple-organs segmentation.
3. To understand novel techniques for automated lesions segmentation.

C. AI in detection and classification applied to workflow prioritisation

Bram Stieltjes; Basle/CH

1. To learn how we can make use of AI to optimise radiology workflow.
2. To appreciate the impact of AI in real productivity metrics of radiologists.
3. To understand the trustworthiness of AI for first-reads and worklists prioritisation.

D. Can we now trust AI models?

Hugh Harvey; London/UK

1. To learn about basic regulatory concepts at a European level.
2. To appreciate the different classes of medical devices.
3. To learn the key questions to ask AI providers.

Live Q&A



Transatlantic Course of ESR and RSNA (Radiological Society of North America): Stroke Imaging and Endovascular Treatment: Now and the Future

TC 428 - The future strategy for stroke thrombectomy

Saturday, March 6, 2021 | 19:45-20:45

Moderators

Jean-Pierre Pruvo; Lille/FR

Raman Uberoi; Oxford/UK

Achala Vagal; Cincinnati, OH/US

A. Addressing workforce needs: who and how to train specialists

Hans van Overhagen; The Hague/NL

1. To learn about the number and type of specialists trained.
2. To understand the global organisation of stroke interventionists and neurologists.
3. To appreciate the future potential number of cases.

B. The future for stroke thrombectomy: what is next?

Mahesh V. Jayaraman; Providence, RI/US

1. To learn about the subgroups that were not studied in the recent stroke trials.
2. To become familiar with use of artificial intelligence in stroke.

C. New innovations in stroke thrombectomy techniques and technology

Klaus A. Hausegger; Klagenfurt/AT

1. To understand the limitations of current devices and techniques.
2. To appreciate the evolution in stroke thrombectomy technology.
3. To understand how the different devices and techniques may improve outcomes.

Live Q&A



Plenary Lecture

PL 4 - Plenary Lecture

Saturday, March 6, 2021 | 21:00-21:30

Moderator

Michael H. Fuchsjäger; Graz/AT

A global perspective on oncologic imaging: why should we care?

Hedvig Hricak; New York, NY/US

Live Q&A



Joint Session of the ESR and EFSUMB

ESR/EFSUMB - New options of diagnosis and treatment in MSK ultrasound

Sunday, March 7, 2021 | 08:00-09:00

Moderators

Dirk André Clevert; Munich/DE

Vito Cantisani; Rome/IT

Ultrasound-guided MSK interventional procedures: what is the evidence?

Luca M. Sconfienza; Milan/IT

1. To understand the basic methods for ultrasound-guided MSK interventional procedures.
2. To show the interventional techniques in the major joints.
3. To present the current evidence on the main ultrasound-guided MSK interventional procedures.

Application of ultrasound in intra-articular pathology

Esperanza Naredo; Madrid/ES

1. To understand the basic methods for ultrasound-guided intra-articular MSK interventional procedures.
2. To demonstrate the interventional intra-articular techniques in the major joints.
3. To present the current evidence on ultrasound-guided intra-articular interventional procedures.

Application of ultrasound in extra-articular pathology

Daniela Fodor; Cluj-Napoca/RO

1. To review the main extra-articular indications for musculoskeletal ultrasound.
2. To exemplify the tendon, enthesis, and muscle pathology.
3. To present the current knowledge in these pathologies.

US elastography in MSK: is there a role?

Elena E. Drakonaki; Iraklion/GR

1. To present the basic technique of EUS in MSK.
2. To present the current indications in MSK based on the recent EFSUMB guidelines.
3. To discuss future directions and potential applications in MSK.

Live Q&A



Multidisciplinary Session

MS 4 - Rectal cancer treatment: which are the clinically relevant questions?

Sunday, March 7, 2021 | 08:00-09:00

Moderator

Regina G.H. Beets-Tan; Amsterdam/NL

From the surgeons

Geerard L. Beets; Amsterdam/NL

1. To understand the relevant clinical questions.
2. To learn about the current status of rectal cancer surgery and organ preservation.
3. To learn what we can expect in the years to come.

From the radiation oncologists

Karin Haustermans; Leuven/BE

1. To become familiar with the various neoadjuvant treatment strategies (long or short course chemoradiotherapy, induction, or consolidation chemo).
2. To learn about the value of these strategies in the era of organ preservation.

Multidisciplinary case presentation

Regina G.H. Beets-Tan; Amsterdam/NL

Live Q&A



Coffee & Talk (open forum) Session

C 19 - Guidance for IT in radiology: how radiologists can benefit from DIAM (Digital Imaging Adoption Model)

Organised by the ESR Subcommittee on PIER

Sunday, March 7, 2021 | 09:15-10:15

Moderator

Luis Donoso; Barcelona/ES

Overview and update on DIAM radiology

Peter Mildenerger; Mainz/DE

1. To explain the methodology of DIAM radiology.
2. To provide examples of departments' experiences with DIAM radiology.
3. To discuss further opportunities for DIAM radiology.

Overview and international experiences with DIAM enterprise imaging (EI)

Jörg Studzinski; Leipzig/DE

1. To explain the methodology of DIAM EI.
2. To provide examples of departments' experiences with DIAM EI.
3. To discuss further opportunities for DIAM EI.

The value of DIAM Gap analyses

Paul Hoogland; Utrecht/NL

1. To explain the value of DIAM in consulting radiology departments and national screening programmes.
2. To showcase the benefit of DIAM as a strategic tool for IT development.
3. To discuss the value of DIAM Gap analyses.

Live Q&A: DIAM radiology or DIAM enterprise imaging: which one to go for?



E³ - ECR Master Class

E³ 1226 - Artificial intelligence (AI) applications in the growing body

Sunday, March 7, 2021 | 09:15-10:15

Moderator

Tomas Sakinis; Oslo/NO

A. Big data/small people

Sebastian Stober; Potsdam/DE

1. To understand the basic principles of big data collection.
2. To learn about the organisation of big data.
3. To discuss the challenges in obtaining and managing big data in the paediatric population.

B. Potential applications and challenges of AI in paediatric neuroimaging

Lucie Hertz-Pannier; Gif sur Yvette/FR

1. To understand the principles of AI applications in paediatric neuroimaging.
2. To learn about how deep learning networks can be used for segmentation, detection, and characterisation in paediatric neuroimaging.
3. To discuss the challenges of AI in paediatric neuroimaging.

C. Potential applications and challenges of AI in the imaging of growing bone

Kathia Chaumoitre; Marseille cedex 20/FR

1. To understand the principles of AI applications in the imaging of the growing skeleton.
2. To learn about how deep learning networks can be used for segmentation, detection, and characterisation in the growing skeleton.
3. To discuss the challenges of AI in the growing skeleton.

Live Q&A: How can paediatric radiologists keep up with adult radiologists in applying AI to clinical practice?



Special Focus Session

SF 21 - Lung cancer screening implementation in Europe: where are we now?

Sunday, March 7, 2021 | 09:15-10:15

Moderator

Annemiek Snoeckx; Antwerp/BE

Pivotal aspects for a successful lung cancer screening programme

Annemiek Snoeckx; Antwerp/BE

1. To describe those key elements that are essential for lung cancer screening programmes to be successful and impact on the care of those who are potentially screened.
2. To highlight the multifaceted role of radiologists in a lung cancer screening programme.

Croatia

Ante Marusic; Zagreb/HR

1. To demonstrate the complexity of preparation, implementation, and management of a national lung cancer screening program (LCS).
2. To demonstrate the structure of the national LCS in Croatia through integrated care.
3. To demonstrate the applied quality control in the ongoing LCS in Croatia.

Hungary

Anna Kerpel-Fronius; Budapest/HU

1. To learn about implementing screening from a one-centre study to several institutions.
2. To understand Hungary-specific aspects of screening.
3. To become familiar with the Hungarian LDCT LCS implementation programme.

Poland

Mariusz Adamek; Gdansk/PL

1. To demonstrate how a nationwide programme may originate from a couple of local screening programmes.
2. To indicate the importance of proper structuring of a programme.
3. To become familiar with the cloud-based AI-powered platform created for the Polish programme.

Russia

Sergey Morozov; Moscow/RU

1. To learn about the different stages of implementing a lung cancer screening programme in Russia.
2. To show the role of artificial intelligence in lung cancer screening.
3. To identify the transition problems from a pilot project to a large-scale programme and possible solutions.

France

Marie-Pierre Revel; Paris/FR

1. To provide an overview of the ongoing lung cancer screening studies in France.
2. To learn about the pilot programme conducted in the Somme district.
3. To explain how French radiologists are getting prepared for large scale screening.

Germany

Claus Peter Heussel; Heidelberg/DE

1. To provide an update on the lessons learned from LC-screening in Germany so far.
2. To understand the German-specific aspects of screening organisation and radiation protection and funding.
3. To become familiar with the German LC-screening future.

United Kingdom

Anand Devaraj; London/UK

1. To understand the current progress in lung cancer screening implementation in the UK.
2. To understand training and radiology requirements for reading in the UK.
3. To review the challenges and successes of implementation to date.

Live Q&A: What are the remaining obstacles for LCS implementation?

ESR meets Armenia

Meets 4 - Blooming radiology in an ancient nation

Sunday, March 7, 2021 | 10:30-11:30

Moderators

Michael H. Fuchsjäger; Graz/AT

Kostan Galumyan; Yerevan/AM

Introduction: History of Armenian radiology

Kostan Galumyan; Yerevan/AM

1. To learn about the history and current state of radiology in Armenia.
2. To learn about the educational system and opportunities for residents in Armenia.
3. To get acquainted with typical clinical cases in Armenian radiology practice.
4. To become familiar with the achievements of radiology and its perspectives in Armenia.

Interlude 1: Armenian folk music

Practicing modern radiology in Armenia

Hovhannes Vardevanyan; Yerevan/AM

1. To learn about specific cases predominantly observed in Armenia.
2. To become familiar with everyday workflow of Armenian radiological clinics.
3. To learn about the difficulties faced by radiologists in Armenia.

Interlude 2: Armenian folk dances

New opportunities for radiology residents

Meri Talanyan; Yerevan/AM

1. To learn about challenges of radiology residents in Armenia.
2. To become familiar with residency programmes and opportunities.

Interlude 3: Armenian culinary treats

Future vision of Armenian radiology

Narek Matinyan; Yerevan/AM

1. To learn about perspectives for improving radiological practice in different regions of Armenia.
2. To learn about the potential of artificial intelligence in Armenian radiology.
3. To become familiar with new ideas for radiology education.

Live Q&A: New paths for growth of the Armenian radiology



Refresher Course: Breast

RC 102 - Breast tomosynthesis in screening: where do we stand?

Sunday, March 7, 2021 | 10:30-11:30

Moderator

Sophia Zackrisson; Malmö/SE

A. Implementation of DBT in screening in the US

Emily Conant; Philadelphia, PA/US

1. To review the US retrospective studies on DBT in screening.
2. To understand how DBT works in different screening settings.
3. To be oriented about the current use of DBT in screening in the US.

B. Evidence from the prospective trials of DBT

Nehmat Houssami; Sydney, NSW/AU

1. To review the prospective trials of DBT.
2. To discuss the strengths and limitations of DBT in screening.
3. To understand what evidence is needed to implement DBT in a population screening setting.

C. Optimisation of reading DBT: an overview

Ioannis Sechopoulos; Nijmegen/NL

1. To learn about the different reading protocols that can be used in DBT screening.
2. To learn how different reading strategies may impact detection, recalls, and reading time.
3. To learn about possible approaches to optimise DBT reading.

Live Q&A: Has the time come to introduce screening with DBT in Europe?



State of the Art Symposium

SA 3 - Assessment of incidental and screen-detected pulmonary nodules

Sunday, March 7, 2021 | 10:30-11:30

Moderators

Mathias Prokop; Nijmegen/NL

Ieneke Hartmann; Rotterdam/NL

Diagnosis and overdiagnosis of subsolid nodules

Arjun Nair; London/UK

1. To become familiar with the characteristics of subsolid nodules and their risk of cancer.
2. To learn about the differential diagnosis of subsolid nodules.
3. To understand current management strategies for the diagnosis, classification, and follow-up of subsolid nodules.

Diagnosis and follow-up of solid nodules

Anna Rita Larici; Rome/IT

1. To become familiar with the characteristics of solid nodules and their risk of cancer.
2. To learn about the differential diagnosis of solid nodules.
3. To understand current management strategies for the diagnosis, classification, and follow-up of solid nodules.

Radiomics and AI performance in lung nodule assessment

Guillaume Chassagnon; Paris/FR

1. To become familiar with the deep learning methods used and their possibilities.
2. To learn what the current state-of-the-art applications of AI are in detection, classification, and follow-up of pulmonary nodules.
3. To appreciate what the impact of these advancements may be on the role of radiologists.

Live Q&A: The requirements of a nodule MDT board



ESR eHealth and Informatics Subcommittee Session

ESR eHealth - How to enhance radiologist-patient communication through IT

Jointly organised with the ESR Patient Advisory Group (ESR-PAG)

Sunday, March 7, 2021 | 11:45-12:45

Moderators

Birgit Bauer; Abensberg/DE

Peter Mildenerger; Mainz/DE

Using patient portals for communicating with patients

Christoph D. Becker; Geneva/CH

1. To understand the communication needs of patients and radiologists.
2. To learn how patient portals are used to collect patient data and consent.
3. To know how patient portals can help to communicate results.

How to enhance patients' perception of radiology

Birgit Bauer; Abensberg/DE

1. To understand how to use patient portals for the communication with patients.
2. To understand how patients perceive radiology and how to enhance patient's perception of radiology.
3. To learn how technology can help radiologists to team up with patients.

Teaming up with our patients

Elmar Kotter; Freiburg/DE

1. To learn how IT can be used to reduce information collection from the patient.
2. To understand the principle of chatbots and to analyse their potential value for radiology.
3. To explain how reports adapted to patients needs can be derived from standard reports.

Live Q&A: Communication between patients and radiologists in five years



Refresher Course: Oncologic Imaging

RC 416 - Cancer becoming a chronic disease: role of imaging and radiomics

Sunday, March 7, 2021 | 11:45-12:45

Moderator

Melvin D'Anastasi; Msida/MT

A. Imaging surveillance: the pros and the cons

Christiane K. Kuhl; Aachen/DE

1. To understand which imaging techniques are suitable for cancer surveillance.
2. To learn when to perform surveillance imaging in different cancers.
3. To become familiar with the limitations of surveillance imaging.

B. Early detection of progression, recurrence, and secondary tumours

Stuart A. Taylor; London/UK

1. To understand the clinical impact of early recurrence/progression detection.
2. To learn the role of CT and MRI for early lesion detection.
3. To learn the role of PET for early lesion detection.

C. Radiomics for outcome prediction and prognostication

Georg Langs; Vienna/AT

1. To become familiar with radiomics analysis techniques in oncologic imaging.
2. To understand the concept and methodologies for image-based outcome prediction.
3. To learn how to integrate radiomics results and clinical-risk models for prognostication.

Live Q&A: How to generate evidence for imaging in cancer surveillance?



RTF Quiz

RTF Quiz - Beating heart of radiology

Sunday, March 7, 2021 | 11:45-12:45

Quiz Masters

Marco Francone; Rome/IT

Christian Loewe; Vienna/AT



Refresher Course: Cardiac

RC 203 - The radiologist at the centre of the heart team

Sunday, March 7, 2021 | 14:15-15:15

Moderator

Tim Leiner; Utrecht/NL

A. The value of CT/MRI in non-surgical cardiac valve replacement

Rodrigo Salgado; Antwerp/BE

1. To understand the clinical indications for transcatheter interventions in different cardiac valves.
2. To understand the difficulties in correctly assessing cardiac valvular anatomy and its therapeutic implications.
3. To correctly identify and report key issues which may influence procedural success and patient prognosis.

B. Diagnosing native and prosthetic heart valve endocarditis: how can the radiologist help?

Gudrun Feuchtner; Innsbruck/AT

1. To understand the aetiology and clinical presentation of endocarditis.
2. To understand the current guidelines for diagnosis and treatment and the role of CT/MRI imaging.
3. To become familiar with common and uncommon imaging presentations of endocarditis and its pitfalls.

C. The radiologist as a member of the heart team: what the guidelines say and future perspectives

Jean-Nicolas Dacher; Rouen/FR

1. To understand the role of multidisciplinary heart teams.
2. To learn how heart teams are implemented in the current guidelines.
3. To evaluate the current position of the radiologist, and the challenges ahead.

Live Q&A: How to empower the radiologist's clinical role in the setting of a heart team?



Special Focus Session

SF 12 - Liver transplantation: imaging and intervention

Sunday, March 7, 2021 | 14:15-15:15

Moderator

Filipe Caseiro Alves; Coimbra/PT

Preoperative: what to know

Valérie Vilgrain; Clichy/FR

1. To learn how imaging impacts on clinical decision making for liver transplantation.
2. To understand the selection criteria for transplantation in HCC patients.
3. To appreciate the role of biopsy and interventional radiology in pre-transplant patient management.

Postoperative and follow-up: what to expect and what goes wrong

Rossano Girometti; Udine/IT

1. To appreciate the early and late complications of liver transplantation.
2. To understand the role of multimodality imaging for the diagnosis.
3. To understand the prognostic factors that may change patient management.

The role of interventional radiology in treating complications

Allan Bloom; Jerusalem/IL

1. To learn about the complications of liver transplantation that are treatable through interventional radiology.
2. To understand the clinical results emphasising the failure rates of IR techniques.
3. To appreciate the future direction of IR in the liver.

Live Q&A: Can radiology expand its role for patient management?



E³ - ECR Master Class

E³ 826 - Implants in the head and neck

Sunday, March 7, 2021 | 15:30-16:30

Moderator

Alexandra Borges; Lisbon/PT

A. Otological implants

Berit Verbist; Leiden/NL

1. To become familiar with the types and locations of otological implants.
2. To learn about optimal imaging strategies for such implants.
3. To become acquainted with the key imaging features to report.

B. Cosmetic facial implants

Polly Richards; London/UK

1. To become familiar with the types of compounds used in cosmetic facial implants.
2. To learn about the types of procedures patients may have undergone.
3. To recognise the relevant imaging features and post-procedural complications.

C. 3D printed implants in the skull: what's new and what's required?

Maurice Mommaerts; Brussels/BE

1. To learn about differing types of dental and maxillofacial implants.
2. To be familiar with the imaging appearance of such implants.
3. To understand what the surgeon wants to know in your report.

Case presentation

Alexandra Borges; Lisbon/PT

Live Q&A



ESR EIBALL Session

ESR EIBALL - Navigating an imaging biomarker from concept into the clinic

Sunday, March 7, 2021 | 15:30-16:30

Moderator

Nandita M. deSouza; Sutton/UK

Launching a biomarker (Biomarker x) successfully into clinical practice

Marion Smits; Rotterdam/NL

1. To learn what makes a successful biomarker.
2. To appreciate the necessary steps and processes required.
3. To understand the pathway used in the case of a successfully launched biomarker.

Global networking to promote biomarker development and use

Xavier Golay; London/UK

1. To learn about the relevant groups involved in biomarker development and validation.
2. To appreciate the on-going networking activities.
3. To understand the gaps in knowledge and how networking could address them.

Exploiting artificial intelligence (AI) for rapid biomarker development, validation, and interpretation

Angel Alberich-Bayarri; Valencia/ES

1. To learn how AI has the potential for identifying and validating biomarkers.
2. To appreciate the role of AI in data driven interpretation.
3. To understand the limitations in AI-driven biomarker interpretation.

Live Q&A: When should imaging biomarkers be used as decision-support tools?



Professional Challenges Session

PC 5 - The state-of-the-art of everyday radiation: benefit-risk communication

Sunday, March 7, 2021 | 15:30-16:30

Moderators

Paddy Gilligan; Dublin/IE

Catherine Owens; London/UK

The patient has a right to know: what the EU Directive 2013/59 tells us

Carmel J. Caruana; Msida/MT

1. To learn about the ethical and legal rights and obligations for patients and staff regarding risk.
2. To understand who has to communicate the benefit-risk information.
3. To become familiar with how the new standards can be implemented in a practical manner.

The patient's perspective is all that matters: what do they need to hear?

Erik Briers; Hasselt/BE

1. To learn why a patient-centred approach is important.
2. To understand the guidelines and the recommendations of the ESR patient advisory group.
3. To become familiar with how the new standards can be implemented in a practical manner for different patient groups.

Communicating risks with parents and caretakers of paediatric patients

Catherine Owens; London/UK

1. To learn the importance of the communication of benefit-risk information to this sensitive group.
2. To understand the challenges and how they might be overcome.
3. To become familiar with how the above can be achieved in a practical manner.

Radiation risk in pregnancy: what should the woman be informed of?

Franz Kainberger; Vienna/AT

1. To learn the importance of the communication of benefit-risk information to this radiosensitive cohort.
2. To understand the challenges and how they might be overcome.
3. To become familiar with how the above can be achieved in a practical manner.

Live Q&A: Do we need to improve our risk communication skills? How?



Coffee & Talk (open forum) Session

C 15 - Image quality and dose: a practical guide for radiologists

Organised by EuroSafe Imaging

Sunday, March 7, 2021 | 16:45-17:45

Moderators

Werner R. Jaschke; Innsbruck/AT

Annalisa Trianni; Udine/IT

Image quality in CT: the medical physicist's perspective

Annalisa Trianni; Udine/IT

1. To learn how to quantify image quality.
2. To appreciate the relation between dose and image quality.
3. To understand how image reconstruction influences image quality.

Image quality in CT: the radiologist's perspective

Mathias Prokop; Nijmegen/NL

1. To learn how to assess image quality and how to avoid artefacts.
2. To appreciate the important role of image quality and diagnostic accuracy.
3. To understand that an appropriate image quality can be achieved at rather low dose levels for many clinical tasks.

Lung cancer screening using CT

Matthys Oudkerk; Groningen/NL

1. To learn how to optimise CT protocols for lung cancer screening.
2. To appreciate the important role of dose reduction.
3. To understand the risks associated with screening by CT.

Live Q&A



Special Focus Session

SF 13 - Can we limit gadolinium use in neuroimaging?

Sunday, March 7, 2021 | 16:45-17:45

Moderator

Alejandro Rovira-Cañellas; Barcelona/ES

Gadolinium: an environmental issue

Gerard Stroomberg; Nieuwegein/NL

1. To learn about the potential toxic effect of environmental free gadolinium.
2. To appreciate that gadolinium is an emerging contaminant in water resources.
3. To understand the need of monitoring gadolinium distribution in tap waters.

Gadolinium deposition: an update

Dragan A. Stojanov; Nis/RS

1. To learn about the mechanisms involved in gadolinium deposition in the brain.
2. To understand stability differences of the types of gadolinium chelates and their relationship to gadolinium deposition in the brain.
3. To learn about the potential long-term adverse health effects of gadolinium deposition in the brain.

I don't need gadolinium

Zoran Rumboldt; Rovinj-Rovigno/HR

1. To understand the rationale for reducing repetitive injections of gadolinium-based contrast agents.
2. To identify clinical situations in which gadolinium-based contrast agents have no added value for diagnostic and monitoring purposes.
3. To learn about the potential of unenhanced MRI techniques with quantitative image analysis to obtain gadolinium-analog information.

I always need gadolinium

Nicoletta Anzalone; Milan/IT

1. To appreciate the excellent safety profile and tolerance of gadolinium-based contrast agents.
2. To learn that there is no documented clinical risk related with gadolinium deposition in the brain.
3. To learn about the added clinical value of gadolinium MRI for diagnosis and monitoring purposes in different neurologic disorders.

Live Q&A: Towards practice harmonisation



Coffee & Talk (open forum) Session

C 6 - Professional regulation and opportunities across Europe

Sunday, March 7, 2021 | 18:00-19:00

Moderator

Charlotte Beardmore; London/UK

Professional regulation: a tool or a barrier for harmonisation and free movement

Louise A. Rainford; Dublin/IE

1. To gain an overview of the role of professional regulators.
2. To appreciate how professional regulators function and the importance of their work.
3. To understand professional regulatory implications regarding free movement and qualification recognition.

Harmonisation of professional knowledge, skills, and competencies across Europe

Andrew England; Salford/UK

1. To learn about the differences in professional knowledge, skills, and competencies for radiographers across Europe.
2. To appreciate the need for harmonising knowledge, skills, and competencies across Europe.
3. To understand the methods for harmonising knowledge, skills, and competencies.

The EU Basic Safety Standards (BSS) directive: progressing or restricting the harmonisation of the radiographer profession across Europe

Joana Santos; Coimbra/PT

1. To understand radiographers' responsibilities and duties according to the EU Basic Safety Standards (BSS) directive.
2. To gain an overview of the BSS radiographer's radiation protection role across countries.
3. To become familiar with different countries strategies in order to promote the harmonisation of the radiographer profession.

The Nordic continuing professional development (CPD) system: a tool to facilitate harmonisation and free movement

Claus Brix; Frederiksberg/DK

1. To learn about how CPD can be used to support ongoing and post qualification development of the profession.
2. To understand the necessary importance of CPD in the development of clinical skills.
3. To become familiar with the work and implementation of CPD in Nordic countries.

Live Q&A



Special Focus Session

SF 15 - How to succeed in brachial plexus imaging

Sunday, March 7, 2021 | 18:00-19:00

Moderator

Felix P. Kuhn; Zurich/CH

High-resolution ultrasound: techniques and pitfalls

Carlo Martinoli; Genoa/IT

1. To learn about the technical possibilities in high-resolution ultrasound.
2. To understand the potential pitfalls.
3. To appreciate the possibilities to extend and improve your ultrasound skills.
4. To become familiar with different clinical cases.

MRI protocol optimisation: different information from different MR sequences (incl. DTI)

Carlos Torres; Ottawa, ON/CA

1. To learn about the different types of MR pulse sequences to assess the brachial plexus.
2. To understand how to improve your MR protocols.
3. To appreciate what information can be extracted from different MR sequences (incl. DTI).
4. To become familiar with 3D high-resolution imaging.

MRI in clinical routine: radiological/clinical correlation

Simonetta Gerevini; Milan/IT

1. To learn about the correlation between image findings and the clinical presentation.
2. To understand the importance of pertinent clinical information.
3. To appreciate the additional information which you may be able to provide to your clinical colleagues.
4. To become familiar with different clinical cases.

Case review: three particularly interesting cases

Felix P. Kuhn; Zurich/CH

Carlo Martinoli; Genoa/IT

Carlos Torres; Ottawa, ON/CA

Live Q&A: How to find your way in this complex anatomy



Healthcare Professionals in Focus

IF 4 - Make your own resilience and well-being plan

Sunday, March 7, 2021 | 18:00-19:30

Moderator

M.G. Myriam Hunink; Rotterdam/NL

Keynote speaker: Surviving in times of chaos: creating your personal resilience/well-being plan

Peter Moskowitz; Palo Alto, CA/US



E³ - Rising Stars Programme: Basic Sessions

BS 1 - Challenges in cross-sectional imaging

Organised by the EFRS

Sunday, March 7, 2021 | 19:45-20:45

Moderator

Carst Buissink; Groningen/NL

Technical challenges in MRI: overcoming metal artefacts

Tina Vincens Sørensen; Odense/DK

1. To provide an overview of the most common metal artefacts in MRI.
2. To highlight the importance of limiting the impact of metal artefacts on safety and diagnosis.
3. To provide practical suggestions on how to limit artefacts in MRI.

Challenges in contrast administration to vulnerable patients in CT

Anders Svensson; Stockholm/SE

1. To learn how to identify vulnerable patients.
2. To identify the challenges in contrast administration to paediatric and elderly patients.
3. To provide strategies for reducing the risks in the administration of contrast to vulnerable patients.

An overview of technical and

physical artefacts in ultrasound

Barbara Kraus; Vienna/AT

1. To provide an overview of the most common artefacts in US.
2. To highlight the importance of limiting the impact of artefacts on diagnosis.
3. To provide practical suggestions on how to limit artefacts in US.

Live Q&A: How to ensure quality control in cross-sectional imaging in daily practice?



Coffee & Talk (open forum) Session

C 1 - Attracting the next generation of radiologists: exploring ways forward

Organised by the ESR Subcommittee on Undergraduate Education

Sunday, March 7, 2021 | 19:45-20:45

Moderator

Laura Oleaga Zufiría; Barcelona/ES

Future radiologists: the importance of early engagement

Sofia Gourtsoyianni; Athens/GR

1. To be aware of the different strategies of early engagement across Europe.
2. To appreciate the benefits and challenges to effective early engagement.

Undergraduate radiology societies: the UK experience in bringing together future radiologists

Jim Zhong; Leeds/UK

1. To learn the role and process of setting up undergraduate radiology societies.
2. To appreciate the benefits of early engagement through undergraduate societies.

Undergraduate and postgraduate degrees: do they bring undergraduates into radiology?

Vicky J. Goh; London/UK

1. To be aware of undergraduate and postgraduate degrees involving radiology.
2. To understand if these are effective in bringing doctors into radiology.

Current ESR education initiatives: an update

Carlo Catalano; Rome/IT

1. To be aware of ESR's activities in attracting new doctors into radiology.
2. To be aware of ESR's activities for radiologists in training.

Live Q&A: Attracting the next generation: how to achieve more in Europe?



E³ - ECR Master Class

E³ 1626 - Whole-body MRI (and PET/MRI)

Sunday, March 7, 2021 | 19:45-20:45

Moderator

Davide Prezzi; London/UK

A. Metastatic bone prostate cancer

Frédéric E. Lecouvet; Brussels/BE

1. To define imaging strategies in newly diagnosed, recurrent, and advanced disease.
2. To learn to use MET-RADS-P guidelines for whole-body MRI acquisition, reading, and response assessment.
3. To illustrate recent therapeutic advances: i.e. oligometastatic disease and precision medicine approaches.

B. Multiple myeloma

Lia-Angela Moulopoulos; Athens/GR

1. To become aware of the value of whole-body MRI in myeloma.
2. To understand current imaging protocols.
3. To learn about its roles: detect, monitor, and provide prognostic information.

C. Lymphoma

Marius E. Mayerhöfer; Vienna/AT

1. To introduce the role of whole-body MRI and PET/MRI for imaging lymphoma subtypes.
2. To know its value for detection, assessment of response, and prognosis.
3. To understand the current advantages and limitations of whole-body MRI and PET/MRI.

Live Q&A

