



SERVIZIO SANITARIO REGIONALE
EMILIA - ROMAGNA
Istituto Ortopedico Rizzoli di Bologna
Istituto di Ricovero e Cura a Carattere Scientifico



DIPARTIMENTO
DI SCIENZE BIOMEDICHE
E NEUROSENSORIALI
DIPARTIMENTO
DI SCIENZE MEDICHE
E CHIRURGICHE



ESSR EUROPEAN SOCIETY OF
MUSCULOSKELETAL
RADIOLOGY

METABOLIC BONE DISEASES AND FRAILTY:

science to practice

Bologna

October 17-18 2024

Rizzoli Orthopaedic Institute

PROGRAM





SCIENTIFIC COORDINATOR

Alberto Bazzocchi

Diagnostic and Interventional Radiology
Rizzoli Orthopaedic Institute - IRCCS, Bologna (Italy)

SCIENTIFIC SECRETARIAT

Maria Pilar Aparisi Gómez, Auckland (New Zealand) - Valencia (Spain)

YOUTH SECRETARIAT

Rebecca Sassi, Bologna (Italy)

Silvia Gazzotti, Bologna (Italy)

FOREWORD

Longevity, in the context of healthy aging, is the ultimate goal of healthcare. It also represents the ground for some of the most significant endpoints in research.

Aging is commonly associated with frailty. However, it can be questioned whether the concept of “normal” regarding frailty exists, which is the threshold for pathology, and eventually what is the strategy to integrate assessment and management of frailty, with the aim to increase life expectancy and quality of life.

A good insight into metabolism is fundamental for the understanding of pathophysiological processes. Imaging of metabolism spans from advanced nuclear medicine and MRI techniques targeted to the assessment of specific metabolic imaging biomarkers, to the assessment of metabolic diseases per se.

Metabolic diseases are an extremely wide spectrum of diseases, which basically span through every medical topic. Theoretically, all diseases have a metabolic “anima” to understand, which is defined not only by physiology, but that should also be considered in the light of biomechanics and genetics. This is very apparent for metabolic diseases centered on the musculoskeletal (MSK) system. Muscles, bones and fat deposits are the components making most of our body weight.

The MSK system is central in the understanding, prevention and management of metabolic conditions and frailty. The role of clinical radiologists is crucial for the benefit of the community, from screening to monitoring the effects of treatments.

The ultimate problem of metabolic bone diseases is represented by fractures and the consequences of frailty. For instance, consequences of osteoporosis and sarcopenia are of unparalleled impact on healthcare systems, besides from ruining the quality of life of patients.

Despite metabolic changes happen at a molecular level, the understanding of metabolic bone diseases relies more and more on imaging. This is true in both research and clinical practice. Imaging is capable to assess (and sometimes discover) different in-vivo biomarkers of metabolism and frailty, aside from detecting fractures (sometimes this poses a challenge). Imaging is making visible what was invisible or impossible to assess only a few years ago, with new techniques and tools in clinical practice.

This course will be focused on translating science into practice in the field of metabolic bone disease diagnosis and management, in the light of modern imaging. Special attention will be put on the take home messages, aiming to integrate the clinical practice of different professionals working in the field, with the goal of improving diagnosis and management of MSK frailty.

This will be possible with the invaluable contribution of several internationally acclaimed and credited experts in the field.

We hope you will enjoy the course!

Welcome to Bologna, welcome to the Rizzoli

Alberto Bazzocchi

Chair of the Course



THURSDAY, October 17th 2024

- 13.30 Registration
- 14.10 Welcome address
Directors of the Rizzoli Orthopaedic Institute
- 14.20 Opening remarks and introduction
Alberto Bazzocchi

Session 1

Putting metabolic bone diseases on the map

Moderators: **Giuseppe Guglielmi, Alberto Bazzocchi**

- 14.30 Bone frailty from a biological point of view
Nicola Baldini, Sofia Avnet
- 14.45 Clinical overview on metabolic bone diseases, and clinical needs: osteoporosis and beyond
Guido Zavatta
- 15.10 Conventional radiology: is it possible to suspect metabolic bone disease from radiographs?
Amanda Isaac
- 15.30 Non-spinal insufficiency fractures
Maria Pilar Aparisi Gómez
- 15.50 Panel discussion
- 16.00 *Coffee Break*

Session 2

The relevance of DXA

Moderators: **Uberto Pagotto, Marco Miceli**

- 16.30 Clinical needs
Jacopo Ciaffi
- 16.45 DXA: how it works, BMD and beyond BMD
Federico Ponti

- 17.05 DXA pitfalls
Rebecca Sassi, Rosanna Presicci
- 17.20 My coolest case with metabolic implications, part 1
Paolo Spinnato, Valerio D'Agostino
- 17.35 Panel discussion
- 18.00 End of the first day of the Course

FRIDAY, October 18th 2024

Session 3

New tools to solve old problems

Moderators: **Mario Maas, Christian Krestan**

- 08.45 Bone frailty from a biomechanical point of view
Fulvia Taddei, Enrico Schileo
- 09.00 New and old ultrasound-based techniques: REMS and QUS
Giuseppe Guglielmi
- 09.15 The importance of vertebral fractures
Christian Krestan
- 09.30 QCT and HR-pQCT today and future perspectives
Silvia Gazzotti
- 09.45 Panel Discussion
- 10.15 *Coffee Break*

Session 4

Beyond bones

Moderators: **Lisa Berti, Jan Kirschke**

- 11.00 Body composition: are we considering this in clinical practice?
Violeta Vasilevska Nikodinovska



Rapid fires

- 11.15** DXA - **Paolo Spinnato**
- 11.25** Ultrasound - **Federico Ponti**
- 11.35** CT and MRI - **Ana Isabel García Díez**

- 11.50** Sport and metabolic bone disease
Maria Pilar Aparisi Gómez

- 12.05** Panel Discussion

SPECIAL FOCUSES

- 12.15** AI in the management of metabolic bone diseases. Science to practice: strategies for integration
Jan Kirschke
- 12.30** Rare diseases and paediatrics
Luca Sangiorgi
- 12.45** Metabolic bone diseases and body composition in paediatrics
Paolo Simoni

- 13.00** Panel Discussion

- 13.15** *Lunch Break*

Session 5

The metabolic soul of MSK conditions: everything everywhere all at once

Moderators: Chiara Giraudo, Paolo Simoni

- 14.00** Challenges of Orthopaedics in frailty
Alessandro Gasbarrini, Riccardo Ghermandi
- 14.15** Differential diagnosis of vertebral fractures
Radhesh Krishna Lalam
- 14.30** Metabolic background of rheumatic conditions
Chiara Giraudo
- 14.45** Bone marrow adiposity
Kerensa Mattanja Beekman

- 15.00** Panel Discussion

Session 6

Management and implications

Moderators: Ana Isabel García Díez, Radhesh Krishna Lalam

- 15.10** Interventional radiology. Current evidence and techniques
Danoob Dalili

- 15.25** How to reliably assess response to therapy in metabolic bone diseases? Clinician vs. Radiologists perspectives
Sara De Vicentis vs. Kerensa Mattanja Beekam

- 15.40** My coolest case with metabolic implications, part 2
Miriana Rosaria Petrer, Maria Elisa Carpenzano

- 15.55** Research and realistic future perspectives
Martin Torriani, Alberto Bazzocchi

- 16.15** Panel Discussion and closing remarks

- 17.00** End of the Course





Maria Pilar **Aparisi Gómez**, Auckland (New Zealand) - Valencia (Spain)
 Sofia **Avnet**, Bologna (IT)
 Nicola **Baldini**, Bologna (IT)
 Alberto **Bazzocchi**, Bologna (IT)
 Kerensa Mattanja **Beekman**, Amsterdam (NL)
 Lisa **Berti**, Bologna (IT)
 Maria **Carpenzano**, Bologna (IT)
 Jacopo **Ciaffi**, Bologna (IT)
 Valerio **D'Agostino**, Nocera Inferiore, SA (IT)
 Danoob **Dalili**, Oxford (UK)
 Sara **De Vicentis**, Reggio Emilia (IT)
 Ana Isabel **García Díez**, Barcelona (ES)
 Alessandro **Gasbarrini**, Bologna (IT)
 Silvia **Gazzotti**, Bologna (IT)
 Riccardo **Ghermandi**, Bologna (IT)
 Chiara **Giraud**, Padova (IT)
 Giuseppe **Guglielmi**, Foggia-Barletta, BT (IT)
 Amanda **Isaac**, London (UK)
 Jan **Kirschke**, Munich (D)
 Christian **Krestan**, Vienna (AT)
 Radhesh Krishna **Lalam**, Oswestry (UK)
 Mario **Maas**, Amsterdam (NL)
 Marco **Miceli**, Bologna (IT)
 Uberto **Pagotto**, Bologna (IT)
 Miriana Rosaria **Petrera**, Riccione, RN (IT)
 Federico **Ponti**, Bologna (IT)
 Rosanna **Presicci**, Bologna (IT)
 Luca **Sangiorgi**, Bologna (IT)
 Rebecca **Sassi**, Bologna (IT)
 Enrico **Schileo**, Bologna (IT)
 Paolo **Simoni**, Luxemburg (LUX)
 Paolo **Spinnato**, Bologna (IT)
 Fulvia **Taddei**, Bologna (IT)
 Martin **Torriani**, Boston (USA)
 Violeta **Vasilevska Nikodinovska**, Skopje (Republic of Macedonia)
 Guido **Zavatta**, Bologna (IT)

GENERAL INFORMATION

COURSE VENUE

Vasari Hall

Rizzoli Orthopaedic Institute

Via Pupilli, 1 Bologna (Italy)

How to reach the venue: www.ior.it/en/curarsi-al-rizzoli

REGISTRATION FEE

Physicians (non-members)	€ 200,00 (VAT 22% included)
ESSR members	€ 150,00 (VAT 22% included)
Residents	€ 100,00 (VAT 22% included)

** A certificate will be requested upon registration

The registration fee covers:

- Participation in all sessions of the Course
- Coffee Breaks and Lunch
- Congress kit
- Certificate of attendance

REGISTRATION

Online registration will be available on www.leanevent.it/metabolic-bone_reg

PAYMENT

- CREDIT CARD
- PAYPAL
- BANCOMAT OR BANK TRANSFER (ONSITE)

The proforma invoice will be sent immediately at your email address.

CANCELLATION

Cancellations must be communicated in writing via email to the Organizing Secretariat. For cancellations received before **September 15th**, the deposit paid will be refunded, net of agency fees (€ 30.00). After this term, no refund is foreseen. The refund will be made at the end of the Congress.

ITALIAN CME CREDITS

CME PROVIDER: I&C SRL- **No. 5387-426749**

Credits awarded: **9**

Training hours: **9 hours and 55 minutes**

I&C is responsible for the contents, the quality and ethical appropriateness of this CME activity.



The Course will be accredited for the following professionals:

Physicians: Radiologists, Internal medicine doctors, Geriatricians, Endocrinologists, Rheumatologists, Gynaecologists, Orthopaedics, Rehabilitation and Sport physicians, General practitioners, as well as to all the other healthcare professionals structurally involved in the management of the frail patient such as **Physiotherapists, Nursing staff, Radiology technologists and Biomedical Laboratory Technician, Orthopaedic Technologists.**

Only attendees working in the mentioned disciplines will be entitled to Italian educational credits (ECM), but researchers with an interest on metabolic bone diseases will also find this useful and are welcome to participate.

Places available: **70**

METHODOLOGY

Residential

EDUCATIONAL OBJECTIVE

3-Clinical documentation. Diagnostic, rehabilitation and clinical care, pathways, care profiles - treatment profiles.

ASSESSMENT QUESTIONNAIRE

Online multiple-choice questionnaire. Guidance regarding the publication of documentation will be provided on site. To earn CME credits for this event, it is mandatory to: physically attend 90% of the training activities, correctly answer at least 75% of questions included in the learning assessment questionnaire, complete the residential training event evaluation form and the I&C (quality and training needs) questionnaire. Warning: Please note that the questionnaire will be available online for 3 (three) days after the end of the Congress.

OFFICIAL LANGUAGE

English is the official language of the Course. Simultaneous translation is not provided.

ORGANIZING SECRETARIAT AND CME PROVIDER



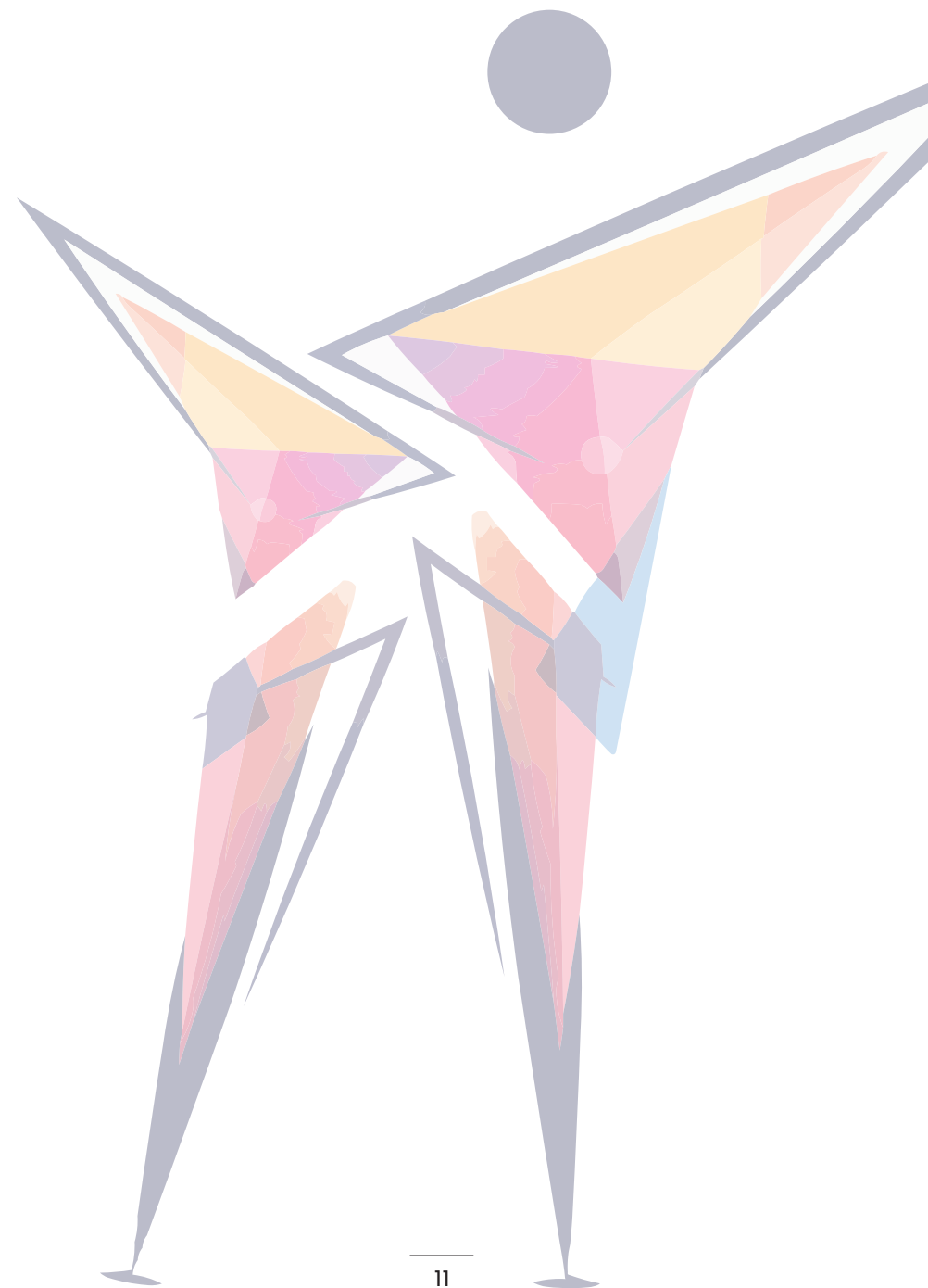
I&C srl - ID 5387

Via A. Costa, 202/6 - 40134 Bologna (Italy)

tel. +39 (0)51.614.4004

chiara.cilione@iec-srl.it

web: www.iec-srl.it



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