# MUSCULOSKELETAL ULTRASOUND in RHEUMATOLOGY

## **BASIC COURSE**

## INTERMEDIATE COURSE

Rome, 4-6 December 2025

Course Chair: Annamaria lagnocco

These courses are endorsed by

#### **Faculty - Basic and Intermediate Course**

Annamaria lagnocco, Turin - IT Ahmed Abogamal, Cairo - EG George Bruyn, Lelystad - NE Edoardo Cipolletta, Ancona - IT Andrea Delle Sedie, Pisa - IT Orazio De Lucia, Milan - IT João Dias, Lisboa - PT Christina Duftner, Innsbruck - AT Maria Antonietta D'Agostino, Rome - IT Emilio Filippucci, Jesi (AN) - IT Dana Fodor, Cluj-Napoca - RO Giasna Gioktis, Katerini - GR Sarah Ohrndorf, Berlin - DE Porin Peric, Zagreb - HR Violeta Vlad, Bucharest - RO

#### **Tutors - Basic and Intermediate Course**

Alberto Batticciotto, Verese - IT Marco Canzoni, Rome - IT Claudio Cruciani, Turin - IT Mirco Magnani, Bologna - IT Gabriella Maioli, Milan - IT Carlo Perricone, Perugia - IT Garifallia Sakellariou, Pavia - IT Nicolò Possemato, Pisa - IT

### **BASIC COURSE PRESENTATION**

### **Course Presentation**

Musculoskeletal ultrasound in rheumatology is a rapidly evolving imaging tool which has registered an increasing and widespread use over the last decades. Currently it is utilized for assessing different rheumatic pathologies and evaluating various abnormalities both in degenerative and inflammatory diseases.

Due to its limited cost, wide equipment availability and feasibility it is used as a bedside procedure in the clinical rheumatology practice. Nonetheless the presence of a high number of experts in the field, there are still many rheumatologists who are willing to learn the use and applications of musculoskeletal ultrasound in rheumatology, with an increasing demand of attending ultrasound courses.

The Course in musculoskeletal ultrasound in rheumatology, which has the EULAR Scientific Endorsement, is an educational initiative which has the aim of assisting rheumatologists to learn ultrasound. The faculty of the Course in musculoskeletal ultrasound in rheumatology is represented by prestigious experts in the field and who are also faculty members of the EULAR Sonography Courses.

### Chair

Prof. Annamaria lagnocco

Professor of Rheumatology Università degli Studi di Torino - Turin, Italy

Local organizer: Dr. Marco Canzoni

Application for endorsement to this Course has been submitted to the Italian Society for Rheumatology.

Participants will give their formal evaluation of the course.

The sponsors will not have any influence on the programme, its content or speakers.

### **Objectives**

- to learn the indications and limitations of musculoskeletal ultrasound (MSUS) in rheumatology
- to learn sonoanatomy and identify different musculoskeletal structures in healthy subjects by Ultrasound
- to learn standard scans in different anatomic areas according to EULAR guidelines
- to learn ultrasound-detectable abnormalities in rheumatology

### Main topics

Applications, indications and limitations of MSUS in rheumatology; Ultrasound physics and technology; Ultrasound patterns of musculoskeletal structures; MSUS artifacts and pitfalls; appropriate use and positioning of the probe; Ultrasound settings and B-mode/Doppler optimization; standard scans of the shoulder, elbow, wrist, hand, hip, knee, ankle and foot; basic Ultrasound pathology; interpretation of Ultrasound images; Ultrasound report and documentation; Ultrasound diagnosis; basic skills in Ultrasound-guided procedures.

### **BASIC COURSE PRESENTATION**

Workshops (small groups, with supervisor)

- Ultrasound Setting
- Sonoanatomy
- Standard scans of the shoulder, elbow, wrist, hand, hip, knee, ankle and foot in healthy subjects
- Training in elementary US basic lesions in patients with RMDs.

### **CME Accreditation provided**

### December 4<sup>th</sup>, 2025

11.30 - 12.45	Registration
12.45 - 12.50	Introduction A. lagnocco, Turin - IT
12.50 - 13.00	EULAR Competency assessment in MSUS A. lagnocco, Turin - IT
Chair: A. lagnocco, Turin - IT	
13.00 - 13.30	<b>Ultrasound in rheumatology: applications, indications and limitations</b> Edoardo Cipolletta, Ancona - IT
13.30 - 13.55	<b>Ultrasound physics and technology. Ultrasound equipment for RMDs</b> E. Filippucci, Jesi (AN) - IT
13.55 - 14.25	<b>Sonographic pattern of musculoskeletal tissues and correlations with anatomy and histology</b> Edoardo Cipolletta, Ancona - IT
14.25 - 15.00	Ultrasound pathologies and elementary lesions in RMDs A. lagnocco, Turin - IT
15.00 - 15.20	How to hold the probe, optimize the B-mode settings and acquire ultrasound images J. Dias, Lisboa - PT
15.20 - 15.45	Artifacts in Musculoskeletal Ultrasound G. Gioktis, Katerini - GR
15.45 - 16.15	Coffee break
16.15 - 17.45	<i>Workshop</i> - How to use the Ultrasound equipment and optimize its setting Faculty and tutors

### Chair: A. Abogamal, Cairo - EG

Ultrasound of the hip. Normal findings and basic Ultrasound pathology 17.45 - 18.15 Lecture - V. Vlad, Bucharest - RO Live demo - G. Gioktis, Katerini - GR

18.15 - 19.30 Workshop - Sonoanatomy and standard scans of the hip. How to perform an Ultrasound examination in healthy subjects and obtain Ultrasound images Faculty and tutors

### December 5<sup>th</sup>, 2025

#### Chair: G. Gioktis, Katerini - GR

- 08.30 09.00 **US of the knee. Normal findings and basic Ultrasound pathology** Lecture - D. Fodor, Cluj-Napoca - RO Live demo - A. Abogamal, Cairo - EG
- 09.00 10.30 *Workshop* Sonoanatomy and standard scans of the knee. How to perform an Ultrasound examination in healthy subjects and obtain Ultrasound images Faculty and tutors
- 10.30 10.45 Coffee break

#### Chair: D. Fodor, Cluj-Napoca - RO

- 10.45 11.15 Ultrasound of the ankle and foot. Normal findings and basic Ultrasound pathology Lecture D. Fodor, Cluj-Napoca - RO Live demo - J. Dias, Lisboa - PT
- 11.15 12.45 Workshop Sonoanatomy and standard scans of the ankle and foot. How to perform an Ultrasound examination in healthy subjects and obtain Ultrasound images Faculty and tutors

Chair: P. Perić, Zagreb - HR

- 12.45 13.15 US of the shoulder. Normal findings and basic Ultrasound pathology Lecture - A. Abogamal, Cairo - EG Live demo - P. Perić, Zagreb - HR
- 13.15 14.15 Lunch
- 14.15 15.45 *Workshop* Sonoanatomy and standard scans of the shoulder. How to perform an Ultrasound examination in healthy subjects and obtain Ultrasound images Faculty and tutors

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Chair: C. Duftner, Innsbruck - AT

- 15.45 16.15 Ultrasound of the elbow. Normal findings and basic Ultrasound pathology Lecture - G. Gioktis, Katerini - GR Live demo - C. Duftner, Innsbruck - AT
- 16.15 16.30 Coffee break

16.30 - 17.30 *Workshop* - Sonoanatomy and standard scans of the elbow. How to perform an Ultrasound examination in healthy subjects and obtain Ultrasound images Faculty and tutors

Chair: C. Duftner, Innsbruck - AT

- 17.30 18.00 US of the hand and wrist. Normal findings and basic Ultrasound pathology Lecture - C. Duftner, Innsbruck - AT Live demo - A. Abogamal, Cairo - EG
- 18.00 19.30 *Workshop* Sonoanatomy and standard scans of the hand and wrist. How to perform an Ultrasound examination in healthy subjects and obtain Ultrasound images

Faculty and tutors

### December 6<sup>th</sup>, 2025

### Chair: E. Filippucci, Jesi (AN) - IT

- 08.30 08.55 **Ultrasound in arthritis (RA, SpA): why and when?** E. Filippucci, Jesi (AN) - IT
- 08.55 09.15 Ultrasound in osteoarthritis and crystal-related arthritis (Gout, CPPD): why and when? V. Vlad. Bucharest - RO
- 09.15 09.30 Ultrasound in musculoskeletal soft tissue pathology: why and when? D. Fodor, Cluj-Napoca - RO
- 09.30 09.45 **Ultrasound report** P. Perić, Zagreb - HR
- 09.45 10.15 **Basic skills in sonographic-guided procedures** Edoardo Cipolletta, Ancona - IT

### Chair: A. lagnocco, Turin - IT

- 10.15 10.45 **Interactive discussion on normal and pathological Ultrasound images** J. Dias, Lisboa - PT
- 10.45 11.15 Coffee break
- 11.15 13.15 *Workshop* Supervised hands-on-scanning of patients with different rheumatic diseases Faculty and tutors
- 13.15 13.30 Closing remarks A. lagnocco, Turin - IT

### **INTERMEDIATE COURSE PRESENTATION**

### **Course Presentation**

The Intermediate Course will focus on a wide spectrum of rheumatic and musculoskeletal pathologies.

It is designed for participants with previous performance of a minimum of 10 standardised MSUS examinations of each joint region (i.e., shoulder, elbow, wrist & hand, hip, knee, ankle & foot) and attendance to a basic MSUS course (either a EULAR MSUS Basic course, or a EULAR scientifically endorsed basic course, or a national MSUS Basic course).

This course is one of the criteria for EULAR Competency Assessment in MSUS in Rheumatology - Level 1:

- criterion 1, EULAR Online Introductory Ultrasound Course
- criterion 2, Basic EULAR MSUS Course
- criterion 3, Intermediate EULAR MSUS course
- criterion 4, Advanced EULAR MSUS course

(or other equivalent level of Basic/Intermediate MSUS courses by other national societies / EULAR scientifically endorsed MSUS Courses)

For more details, please follow this link: https://esor.eular.org/course/view.php?id=94

### Chair

Prof. Annamaria lagnocco

Professor of Rheumatology Università degli Studi di Torino-Turin, Italy

Local organizer: Dr. Marco Canzoni

Application for endorsement to this Course has been submitted to the Italian Society for Rheumatology.

Participants will give their formal evaluation of the course.

The sponsors will not have any influence on the programme, its content or speakers.

### **Learning Objectives**

- To know the Doppler physics, technology, settings and artefacts.
- To know the application, indications and limitations of Doppler in rheumatology.
- To identify the spectrum of rheumatic and musculoskeletal abnormalities in each anatomic area (e.g. joint synovitis, tenosynovitis, enthesopathy, tendinosis, paratenonitis, tendon sub/luxation, tendon impingement, tendon tears, bone erosions, osteophytes, ganglia and cysts, articular cartilage lesions, peri- and intra-articular microcrystal deposit, soft tissue calcifications).
- To detect and quantify synovial, tenosynovial, and entheseal inflammation.
- To detect and quantify structural joint damage (i.e. bone, tendons, cartilage).
- To perform sonographic-guided periarticular and intra-articular injections.

### **INTERMEDIATE COURSE PRESENTATION**

### **Application requirements**

For registering to the Intermediate Level Course applicants are requested to provide:

- 6 PowerPoint files with 1 normal examination each of the following joint regions: shoulder, elbow, wrist & hand, hip, knee, ankle & foot (i.e., in total 6 normal examinations, one of each joint region). AND:
- Certification proofs for either: Basic EULAR MSUS Course certificate OR Basic EULAR scientifically endorsed MSUS course attendance OR Other equivalent level of Basic MSUS course by other national societies.
- Completion of EULAR Online Introductory Ultrasound Course is highly recommended, but not mandatory for course participation. However, it is a requirement for EULAR Competency Assessment Level 1.

For more details, please follow this link: https://esor.eular.org/course/view.php?id=94

### **CME Accreditation provided**

### December 4th, 2025

- 12.30 12.35 Introduction A. lagnocco, Turin - IT
- 12.35 12.45 **EULAR Competency assessment in MSUS** A. lagnocco, Turin - IT

#### Chair: V. Vlad, Bucharest - RO

- 12.45 13.15 **Doppler physics and technology. Doppler setting optimisation. Doppler artefacts and pitfalls** A. Delle Sedie, Pisa - IT
- 13.15 13.45 **Applications, indications, and limitations of Doppler in RMDs** G. Bruyn, Lelystad - NE
- 13.45 14.15 **B-mode and Doppler synovitis and tenosynovitis: definition, detection, quantification and pitfalls** M.A. D'Agostino, Rome - IT
- 14.15 15.45 Workshop Supervised practical handling of Doppler US machine settings and Doppler artefacts. Supervised hands-on scanning of patients with synovitis and tenosynovitis Faculty and tutors

### Chair: G. Bruyn

- 15.45 16.15 **US tendon abnormalities (tendinosis, tears, sub/luxation, impingement, calcifications): definition, detection, quantification, and pitfalls** G. Bruyn Lelystad - NE
- 16.15 16.45 Coffee break
- 16.45 17.15 **B-mode and Doppler enthesopathy, enthesitis, paratenonitis and dactylitis: definition, detection, quantification, and pitfalls** A. Delle Sedie, Pisa - IT
- 17.15 18.45 *Workshop -* Supervised hands-on scanning of patients with tendon abnormalities and dactylitis Faculty and tutors
- 18.45 19.15 US bone abnormalities (bone erosions, osteophytes), ganglia and cysts: definition, detection, quantification, and pitfalls
  V. Vlad, Bucharest - RO

### December 5<sup>th</sup>, 2025

#### Chair: Sarah Ohrndorf, Berlin - DE

08.30 - 09.00 US cartilage abnormalities: definition, detection, quantification, and pitfalls

Sarah Ohrndorf, Berlin - DE

- 09.00 09.30 US assessment of crystal arthropathies: definition, detection, quantification, and pitfalls E. Filippucci, Jesi (AN) - IT
- 09.30 10.45 *Workshop* Supervised hands-on scanning of patients with bone lesions, cartilage abnormalities and peri- and intra-articular microcrystal deposits Faculty and tutors
- 10.45 11.00 Coffee break

### Chair: O. De Lucia

- 11.00 11.30 **US diagnosis of ankle and foot pathology** O. De Lucia, Milan - IT
- 11.30 12.00 **US diagnosis of knee pathology** A. Delle Sedie, Pisa - IT
- 12.00 12.30 **US diagnosis of hip pathology** Sarah Ohrndorf, Berlin - DE
- 12.30 13.30 Lunch
- 13.30 15.00 *Workshop* Supervised hands-on scanning of patients with lower limb inflammatory and degenerative diseases Faculty and tutors

#### Chair: M.A. D'Agostino, Rome - IT

- 15.00 15.30 **US diagnosis of wrist and hand pathology** M.A. D'Agostino, Rome - IT
- 15.30 16.00 **US diagnosis of elbow pathology** Sarah Ohrndorf, Berlin - DE
- 16.00 16.15 Coffee break

- 16.15 16.45 **US diagnosis of shoulder pathology** O. De Lucia, Milan - IT
- 16.45 18.15 *Workshop* Supervised hands-on scanning of patients with upper limb inflammatory and degenerative diseases. Faculty and tutors

### December 6<sup>th</sup>, 2025

#### Chair: Edoardo Cipolletta, Ancona - IT

08.30 - 09.15 US-guided periarticular and intra-articular fluid aspirations and injections

Edoardo Cipolletta, Ancona - IT

- 09.15 9.45 **US-guided synovial biopsies** M.A. D'Agostino, Rome - IT
- 09.45 11.15 *Workshop* Supervised US-guided procedures Faculty and tutors
- 11.15 11.45 Coffee break

### Chair: A lagnocco, Turin - IT

- 11.45 12.15 **How to write and publish a paper on MSUS?** A. lagnocco, Turin - IT
- 12.15 12.50 Interactive discussion on normal and pathological Ultrasound images J. Dias, Lisboa - PT
- 12.50 13.00 Closing remarks A. lagnocco, Turin - IT

### **GENERAL INFORMATION**

 $\begin{array}{c} \textbf{Organizing Secretariat} \\ \checkmark & \bigwedge_{I \ N} \prod_{E \ R} \prod_{N \ A} \prod_{I \ O \ N} \prod_{A \ L} O \ A \ C \\ \end{array}$ 

AIM Group International | Milan Office Viale E. Forlanini 23 20134 Milan, Italy Tel. +39 02 566011 mskrome@aimgroup.eu

**Course Venue Cavour Congress Center** Via Cavour, 50/A 00184 Rome, Italy

### **Registration Desk**

The Organizing Secretariat will be available onsite as follows:Thursday, December 411.30 - 19.30Friday, December 508.00 - 19.30Saturday, December 608.00 - 13.30

### Language

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

### **Course Badges**

A badge will be provided on-site together with the Course kit. Participants are kindly requested to always wear their name badge during the Course.

### **Registration Fees**

• Registration fee: € 900,00

### The registration fee includes:

participation in the scientific sessions, course kit, certificate of attendance, lunch breaks and coffee breaks.

Please note that enrollment in the intermediate course is subject to approval by the scientific committee. If your application is not accepted, you will receive a full refund. The organizing secretariat will confirm your participitation within two weeks from your registration.

### How to register

On the website https://eventi2025.webaimgroup.eu/mskrome/ is available an "on line" registration form with payment by credit card in security certificate mode "Verisign" and "SSB". An invoice will be issued as written confirmation of your registration by the Organizing Secretariat.

### **GENERAL INFORMATION**

### **Payments**

All major credit cards are accepted (American Express, VISA, Eurocard/Master Card).

### **Bank Transfer**

Please transfer the payment to: AIM Italy srl Bank details: Intesa San Paolo-Filiale di Viale Conizugna 62 - Milano IBAN: IT57D0306909457100000005623 swift/BIC: BCITITMM

The payment transfer form should clearly state the name(s) of the delegate(s) and should clearly state Rome Musculoskeletal.

### **Cancellation Policy**

Notification of cancellation must be sent in writing to mskrome@aimgroup.eu.

Cancellations of registration will be accepted until the  $5^{th}$  of November 2025, subject to an administrative charge of 30% of the registration fee.

No refund on cancellations sent after 5<sup>th</sup> of November 2025.

### Unexpected cancellation of the event or impossibility to hold it

In the unlikely case that the ''Musculoskeletal Utrasound in Rheumatology Basic Course" cannot be held in whole or in part due to any event beyond the Organisers' control or force majeure (such as riot, fire, explosion, accident, flood, earthquake, sabotage, strikes, acts of law or regulation by Italian or foreign Authorities, epidemic outbreak, sanitary emergency, etc) the Congress Organisers cannot be held liable for any damage, cost, or loss incurred, such as registration fee, transportation and accommodation costs, or any other direct or indirect loss or consequential damage.

