

# 26<sup>th</sup> Sonography Course – MSUS Intermediate

Madrid, Spain

Sunday, 9<sup>th</sup> June – Wednesday, 12<sup>th</sup> June 2019



The 26<sup>th</sup> EULAR Sonography Course will be run simultaneously at three levels, basic, intermediate and advanced, each of them being a combination of lectures and hands-on scanning of models and/or patients with musculoskeletal disorders in small groups with experienced tutors. The course has been designed following the recommendations for the content and conduct of EULAR musculoskeletal ultrasound courses (Naredo E, Bijlsma JWJ, et al. Ann Rheum Dis 2008; 67:1017-22).

# ORGANISATION & COMMITTEE

## Organisers

- Esperanza Naredo
- Ingrid Möller
- Jacqueline Uson

## Faculty

**Carlos Acebes**, Spain; **Marina Backhaus**, Germany; **Peter Balint**, Hungary; **David Bong**, Spain; **George AW Bruyn**, The Netherlands; **Paz Collado**, Spain; **Maria Antonietta D'Agostino**, France; **Nemanja Damjanov**, Serbia; **Andrea Delle Sedie**, Italy; **Eugenio de Miguel**, Spain; **Uffe Møller Døhn**, Denmark; **Andrew Filer**, UK; **Emilio Filippucci**, Italy; **Frederique Gandjbakhch**, France; **Walter Grassi**, Italy; **Hilde Berner Hammer**, Norway; **Annamaria Iagnocco**, Italy; **Sandrine Jousse-Joulin**, France; **David Kane**, Ireland; **Zunaid Karim**, UK; **Marion C. Kortekaas**, The Netherlands; **Juhani M Koski**, Finland; **Peter Mandl**, Austria; **Ingrid Möller**, Spain; **Esperanza Naredo**, Spain; **Ana Rodríguez**, Spain; **Wolfgang Schmidt**, Germany; **Maria Stoenoiu**, Belgium; **Nanno Swen**, The Netherlands; **Marcin Szkudlarek**, Denmark; **Lene Terslev**, Denmark; **Jacqueline Uson**, Spain; **Richard J Wakefield**, UK.

## Special Guest Faculty

**Mikael Boesen**, Denmark; **Jose Antonio Bouffard**, USA; **Klaus-V. Jenderka**, Germany; **Carlo Martinoli**, Italy; **Jorge Short**, Spain; **Jacob M. van Laar**, The Netherlands; **Ximena Wortsman**, Chile.

## Hands-on Tutors

**Maria Alcalde**, Spain; **Cristina Bohorquez**, Spain; **Carmen Cerón**, Colombia; **Mario Chávez**, México; **Cristina Estracht**, UK; **Daniela Fodor**, Romania; **Petra Hanova**, Czech Republic; **Ana Lois-Iglesias**, Spain; **Cristina Macía-Villa**, Spain; **Mihaela Micu**, Romania; **Rodina Liceva Nestorova**, Bulgaria; **Cristina Macía-Villa**, Spain; **Diana Peiteado**, Spain; **Fernando Saraiva**, Portugal; **Giorgio Tamborrini**, Switzerland; **Plamen Todorov**, Bulgaria; **Esther Vicente**, Spain; **Violeta Vlad**, Romania.

## Organising secretariat

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## GENERAL INFORMATION

### Course venue & hotel

Hotel Meliá Avenida América  
Calle Juan Ignacio Luca de Tena, 36, 28027 Madrid, Spain  
T: +34914232400  
F: +34913201440  
<https://www.melia.com/en/hotels/spain/madrid/melia-avenida-america/index.htm>

### Course dates

9<sup>th</sup> June (Start at 14:30), 10<sup>th</sup> June (full day), 11<sup>th</sup> June (full day), 12<sup>th</sup> June (End at 12:30)

### Participants

- 50 participants maximum

### Official language

English

## Application requirement(s)

### Regular participants

- 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).
- 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.

However, it is recommended to have EULAR Online Course, as well as EULAR MSUS Basic course passed as they are the basic requirement for EULAR Competency Assessment – Level 1.

For more details, please follow this link:

[https://esor.eular.org/theme/lc\\_eular/layout/enrol.php?id=65](https://esor.eular.org/theme/lc_eular/layout/enrol.php?id=65)

## Course fee

**1900 €** (VAT included), package includes:

Sunday, 9<sup>th</sup> June 2019

- Full access to the 26<sup>th</sup> EULAR Sonography Course
- 1-night accommodation at the Meliá Avenida América hotel in single room, breakfast included
- Afternoon coffee break
- Dinner

Monday, 10<sup>th</sup> June 2019

- Full access to the 26<sup>th</sup> EULAR Sonography Course
- 1-night accommodation at the Meliá Avenida América hotel in single room, breakfast included
- Morning & Afternoon coffee breaks
- Lunch & Dinner

Tuesday, 11<sup>th</sup> June 2019

- Full access to the 26<sup>th</sup> EULAR Sonography Course
- 1-night accommodation at the Meliá Avenida América hotel in single room, breakfast included
- Morning & Afternoon coffee breaks
- Lunch & Dinner

Wednesday, 12<sup>th</sup> June 2019

- Full access to the 26<sup>th</sup> EULAR Sonography Course
- Morning coffee break

**The course fee quoted is a package price; therefore, the usage of the accommodation is highly recommended. For participants who would prefer not to utilise the accommodation, a discount of 150 € will be given.**

## COURSE DESCRIPTION

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 the 3<sup>rd</sup> criteria for EULAR Competency Assessment in MSUS in Rheumatology – Level 1, please follow this link:

[https://esor.eular.org/theme/lc\\_eular/layout/enrol.php?id=65](https://esor.eular.org/theme/lc_eular/layout/enrol.php?id=65)

### 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 enthesal inflammation.
- To detect and quantify structural joint damage (i.e. bone, tendons, cartilage).
- To perform sonographic-guided periarticular and intra-articular injections.

### Course certification

At the end of the course, all participants who have successfully completed the Intermediate course will receive a certificate:

- EULAR 26<sup>th</sup> MSUS in Rheumatology Course – Intermediate [Passed]

# Detailed Programme

Day 1 – Sunday, 9<sup>th</sup> June 2019

Time	Type of session & Title	Speakers	Room
12:00 – 14:30	Check In & Registration	Organisers	Lobby
14:30 – 14:45	<p><b>Welcome and overview</b></p> <ul style="list-style-type: none"> <li>Objectives and content of the course</li> <li>EULAR Competency assessment in MSUS</li> </ul>	L. Terslev A. Iagnocco	Zaragoza (III)
14:45 – 15:15	<p><b>Doppler physics and technology</b></p> <ul style="list-style-type: none"> <li>Doppler setting optimization</li> <li>Doppler artefacts and pitfalls</li> </ul>	UM. Dohn Chairs: G. Bruyn & L. Terslev	Zaragoza (III)
15:15 – 15:45	<p><b>Applications, indications and limitations of Doppler in rheumatic and musculoskeletal diseases</b></p>	L. Terslev Chairs: G. Bruyn & L. Terslev	Zaragoza (III)
15:45 – 16:15	<p><b>B-mode and Doppler synovitis and tenosynovitis</b></p> <ul style="list-style-type: none"> <li>Definition, detection, quantification, and pitfalls</li> </ul>	E. Filippucci Chairs: G. Bruyn & L. Terslev	Zaragoza (III)
16:15 – 16:45	<b>COFFEE BREAK</b>		Zaragoza (I)

## Day 1 – Sunday, 9<sup>th</sup> June 2019 [continue]

Time	Type of session & Title	Speakers	Room
16:45 – 18:30	<p><b>Workshop [Models]</b></p> <ul style="list-style-type: none"> <li>Supervised practical handling of Doppler US machine settings and Doppler artefacts.</li> <li>Supervised hands-on scanning of patients with synovitis and tenosynovitis.</li> </ul>	Faculty & Tutors	Zaragoza (III)
18:30 – 19:00	<p><b>US tendon lesions</b></p> <ul style="list-style-type: none"> <li>(e.g. tendinosis, tears, sub/luxation, impingement)</li> <li>Definition, detection, quantification, and pitfalls</li> </ul>	<p>Z. Karim</p> <p>Chairs: M. Szkudlarek</p>	Zaragoza (III)
19:30	<b>DINNER</b>		Toledo (II + III)



## Day 2 – Monday, 10<sup>th</sup> June 2019

Time	Type of session & Title	Speakers	Room
08:30 – 09:15	<p><b>B-mode and Doppler enthesopathy and dactylitis</b></p> <ul style="list-style-type: none"> <li>Definition, detection, quantification, and pitfalls (30 mins)</li> <li>Live demo (15 mins)</li> </ul>	<p>MA. D’Agostino</p> <p>Chairs: MA. D’Agostino &amp; E. Filippucci</p>	Zaragoza (III)
09:15 – 09:35	<p><b>US bone abnormalities</b></p> <ul style="list-style-type: none"> <li>Definition, detection, quantification, and pitfalls</li> </ul>	<p>F. Gandjbakhch</p> <p>Chairs: MA. D’Agostino &amp; E. Filippucci</p>	Zaragoza (III)
09:35 – 09:55	<p><b>US cartilage abnormalities</b></p> <ul style="list-style-type: none"> <li>Definition, detection, quantification, and pitfalls</li> </ul>	<p>MC. Kortekaas</p> <p>Chairs: MA. D’Agostino &amp; E. Filippucci</p>	Zaragoza (III)
09:55 – 10:45	<p><b>US assessment of crystal arthropathies</b></p> <ul style="list-style-type: none"> <li>e.g. gout, CPPD disease (30 mins)</li> <li>live demo (20 mins)</li> </ul>	<p>E. Filippucci</p> <p>Chairs: MA. D’Agostino &amp; E. Filippucci</p>	Zaragoza (III)
10:45 – 11:15	<b>COFFEE BREAK</b>		Zaragoza (I)
11:15 – 13:00	<p><b>Workshop</b></p> <ul style="list-style-type: none"> <li>Supervised hands-on scanning of patients with enthesopathy, dactylitis, tendon lesions, bone and cartilage abnormalities, and crystal arthropathies.</li> </ul>	Faculty & Tutors	Zaragoza (III)



## Day 2 – Monday, 10<sup>th</sup> June 2019 [continue]

Time	Type of session & Title	Speakers	Room
13:00 – 14:30	LUNCH		Toledo (II + III)
14:30 – 15:10	<p><b>US diagnosis of hip pathology</b></p> <p><b>Live demo of pathological hip</b></p> <p>(20 mins each)</p>	<p>C. Martinoli</p> <p>E. Filippucci</p> <p>Chairs: C. Martinoli &amp; F. Gandjbakhch</p>	Zaragoza (III)
15:10 – 15:50	<p><b>US diagnosis of knee pathology</b></p> <p><b>Live demo of pathological knee</b></p> <p>(20 mins each)</p>	<p>P. Balint</p> <p>F. Gandjbakhch</p> <p>Chairs: C. Martinoli &amp; F. Gandjbakhch</p>	Zaragoza (III)
15:50 – 16:30	<p><b>US diagnosis of elbow pathology</b></p> <p><b>Live demo of pathological elbow</b></p> <p>(20 mins each)</p>	<p>J. Uson</p> <p>W. Schmidt</p> <p>Chairs: C. Martinoli &amp; F. Gandjbakhch</p>	Zaragoza (III)
16:30 – 17:00	COFFEE BREAK		Zaragoza (I)
17:00 – 19:00	<p style="text-align: center;"><b>Workshop</b></p> <ul style="list-style-type: none"> <li>Supervised hands-on scanning of patients with elbow, hip and knee inflammatory and degenerative diseases</li> </ul>	Faculty & Tutors	Zaragoza (III)
19:30	DINNER		Toledo (II + III)

## Day 3 – Tuesday, 11<sup>th</sup> June 2019

Time	Type of session & Title	Speakers	Room
08:30 – 09:30	<p><b>US diagnosis of wrist and hand pathology</b> (40 mins)</p> <p><b>Live demo of pathological wrist and hand</b> (20 mins)</p>	<p>W. Grassi</p> <p>M. Szkudlarek</p> <p><b>Chairs: W. Grassi &amp; HB. Hammer</b></p>	Zaragoza (III)
09:30 – 10:30	<p><b>US diagnosis of ankle and foot pathology</b> (40 mins)</p> <p><b>Live demo of pathological ankle and foot</b> (20 mins)</p>	<p>HB. Hammer</p> <p>C. Martinoli</p> <p><b>Chairs: W. Grassi &amp; HB. Hammer</b></p>	Zaragoza (III)
10:30 – 11:00	<b>COFFEE BREAK</b>		Zaragoza (I)
11:00 – 13:00	<p style="text-align: center;"><b>Workshop</b></p> <ul style="list-style-type: none"> <li>Supervised hands-on scanning of patients with wrist/hand and ankle/foot inflammatory and degenerative diseases</li> </ul>	Faculty & Tutors	Zaragoza (III)
13:00 – 14:30	<b>LUNCH</b>		Toledo (II + III)

## Day 3 – Tuesday, 11<sup>th</sup> June 2019 [continue]

Time	Type of session & Title	Speakers	Room
14:30 – 16:00	<p><b>US diagnosis of shoulder pathology</b> (40 mins)</p> <p><b>Live demo of pathological shoulder</b> (20 mins)</p>	<p>C. Martinoli</p> <p>JA. Bouffard</p> <p>Chairs: JA. Bouffard &amp; P. Wandl</p>	Zaragoza (III)
16:00 – 16:30	<b>How to write and publish a paper on MSUS?</b>	<p>P. Mandl</p> <p>Chairs: JA. Bouffard &amp; P. Wandl</p>	Zaragoza (III)
16:30 – 17:00	<b>COFFEE BREAK</b>		Zaragoza (I)
17:00 – 19:00	<p style="text-align: center;"><b>Workshop</b></p> <ul style="list-style-type: none"> <li>Supervised hands-on scanning of patients with shoulder inflammatory and degenerative diseases.</li> </ul>	Faculty & Tutors	Zaragoza (II)
19:30	<b>DINNER</b>		Toledo (II + III)

## Day 4 – Wednesday, 12<sup>th</sup> June 2019

Time	Type of session & Title	Speakers	Room
08:30 – 10:00	<p><b>US-guided periarticular and intra-articular injections</b></p> <p><b>Demo of US guided injections</b></p> <p>(45 mins each)</p>	<p>J. Koski</p> <p>JA. Bouffard</p> <p>Chair: N. Swen</p>	Zaragoza (III)
10:00 – 10:30	<b>COFFEE BREAK</b>		Zaragoza (I)
10:30 – 12:15	<p><b>Workshop</b></p> <ul style="list-style-type: none"> <li>Supervised US-guided injections</li> </ul>	Faculty & Tutors	Zaragoza (III)
12:15 – 12:30	<b>Closing Remarks</b>	I. Möller	Zaragoza (III)