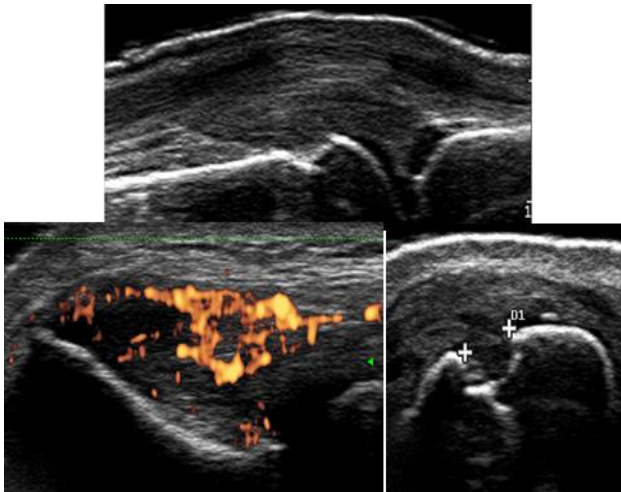


**MUSCULOSKELETAL SONOGRAPHY COURSE  
FOR RHEUMATOLOGISTS  
- BASIC LEVEL -**

**October 9<sup>th</sup> – 11<sup>th</sup>, 2019  
Innsbruck, Austria**



**This course is scientifically endorsed by:**



## GENERAL INFORMATION

**Course opening:** Wednesday, October 9<sup>th</sup>, 2019 – 16.00

**Course closing:** Friday, October 11<sup>th</sup>, 2019 – 18.15

**Official course language:** English

**Congress Venue:**

Hotel Grauer Bär

Universitätsstraße 5-7

6020 Innsbruck, Austria

[www.innsbruck-hotels.at/hotel-grauer-baer/das-hotel](http://www.innsbruck-hotels.at/hotel-grauer-baer/das-hotel)

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in the name of the “Verein zur Förderung der  
Hämatologie, Onkologie und Immunologie”, Innsbruck,  
Austria***

## GENERAL INFORMATION

### **Faculty / Instructors**

*Peter Balint, MD (Budapest, Hungary), EULAR teacher*

*Christian Dejaco, MD, PhD, MBA (Graz, Austria), EULAR teacher*

*Christina Duftner, MD, PhD (Innsbruck, Austria), EULAR teacher*

*Wolfgang Hartung, MD (Bad Abbach, Germany), EULAR teacher*

*Annamaria Iagnocco, MD (Torino, Italy), EULAR teacher*

*Andrea Klauser, MD (Innsbruck, Austria), EFSUMB teacher*

*Peter Mandl, MD, PhD (Vienna, Austria), EULAR teacher*

*Johannes Strunk, MD (Köln, Germany), EULAR teacher*

### **Participants**

The number of participants is limited to 25.

### **Practical sessions**

The number of participants per teacher in practical sessions is five at maximum.

### **Course registration:**

Course applications (with contact E-mail address, no specific form required) should be E-mailed to [margit.bonatti@chello.at](mailto:margit.bonatti@chello.at) or faxed to +43-512-504-23415.

For questions, please call +43-512-934148 or +43-650-8626301

Registration is open for all attendees specifically from EULAR member countries.

The course fee is **990 EUR** per participant (excl. taxes; lodging and food included).

### **OBJECTIVES (in accordance with EULAR guidelines)**

- To learn basic normal musculoskeletal Ultrasonographic (MSUS) anatomy
- To learn basic pathological MSUS findings
- To learn the systematic standardized sonographic scanning method of each anatomical region
- Applications, indications and limitations of MSUS in rheumatology
- Image documentation
- Basics of Colour and Power Doppler application to detect synovial and enthesal inflammation

### **MAIN TOPICS**

- Ultrasound physics and technology, technical characteristics of ultrasound equipments in rheumatology, applications, indications and limitations of MSUS
- MSUS anatomy, artefacts and misinterpretation in MSUS
- Standardized sonographic scanning method of each anatomical region (shoulder, elbow, wrist and hand, hip, knee, ankle and foot) according to EULAR guidelines
- Basic pathological sonographic findings (tendinosis, tenosynovitis, partial and complete tendon tear, enthesitis, bursitis, calcifications, articular cartilage lesions, cortical abnormalities and joint synovitis).
- Reporting US findings and diagnosis

### **LIVE DEMONSTRATIONS**

- To demonstrate standard scans according to EULAR guidelines
- To discuss common artefacts and pitfalls

## **WORKSHOPS**

- Practical handling of the ultrasound system settings
- Supervised identification of musculoskeletal sonoanatomy
- Supervised standardized sonographic scanning of the shoulder, elbow, wrist and hand, hip, knee, ankle and foot
- Supervised hands-on scanning of patients with basic musculoskeletal lesions
- Supervised assessment of the basic sonographic symptoms or inflammation severity in grades

## **REQUIREMENTS OF ATTENDEES**

- There is no experience in musculoskeletal sonography required to attend the basic level ultrasound course

## SCIENTIFIC PROGRAMME

**Wednesday, October 9<sup>th</sup>, 2019**

16:00 - 17:00 **Registration**

17:00 - 17:15 Welcome (*C. Duftner, G. Weiss, M. Schirmer*)

### **Application, indications and limitations of ultrasound in rheumatology**

*Chairperson: C. Dejaco*

17:15 - 17:45 Applications and limitations of ultrasound in rheumatology (*P. Balint*)

### **Ultrasound physics and technology**

*Chairperson: J. Strunk*

17:45 - 18:00 Technical requirements, physics (*W. Hartung*)

18:00 - 18:30 How to optimize grey-scale and Doppler settings (*P. Balint*)

18:30 - 19:15 **Workshop 1:** optimizing ultrasound settings (*all faculty*)

20.00 **Dinner**

**Thursday, October 10<sup>th</sup>, 2019**

**Sonographic pattern of the different musculoskeletal tissues and standard sonographic scans of the wrist and hand**

*Chairperson: W. Hartung*

08:30 – 08:50 Sonographic pattern of the different musculoskeletal tissues (*C. Duftner*)

08:50 – 09:20 Systematic investigation of wrist and hand – normal MSUS anatomy (*C. Duftner*)

09:20 – 09:30 **Live demonstration:** Standard scans and normal MSUS anatomy of wrist and hands (*C. Duftner*)

09:30 – 10:30 **Workshop 2:** Supervised practical session on healthy subjects: Standard scans and normal MSUS anatomy of wrist and hands (*all faculty*)

10:30 - 11:00 **Coffee break**

**Standard sonographic scans and normal MSUS anatomy of the elbow and shoulder**

*Chairperson: C. Duftner*

11:00 – 11:30 Systematic investigation of the elbow – normal MSUS anatomy (*C. Dejaco*)

11.30 - 11:45 **Live demonstration:** Standard scans and normal MSUS anatomy of the elbow (*C. Dejaco*)

11:45 – 13.00 **Workshop 3:** Supervised practical session on healthy subjects: Standard scans and normal MSUS anatomy of elbow (*all faculty*)

13:00 - 14:00 **Lunch**

14:00 - 14:30 Systematic investigation of the shoulder – normal MSUS anatomy (*J. Strunk*)

14:30 - 14:45 **Live demonstration:** Standard scans and normal MSUS anatomy of the shoulder (*J. Strunk*)

14:45 - 16:00 **Workshop 4:** Supervised practical session on healthy subjects: Standard scans and normal MSUS anatomy of shoulder (*all faculty*)

16:00 - 16:30 **Coffee Break**

### **Standard sonographic scans and normal MSUS anatomy of the hip and knee**

*Chairperson:* J. Strunk

16:30 - 16:45 Systematic investigation of the hip – normal MSUS anatomy (*W. Hartung*)

16:45 - 17:00 **Live demonstration:** Standard scans and normal MSUS anatomy of the hip (*W. Hartung*)

17:00 - 17:45 **Workshop 5:** Supervised practical session on healthy subjects: Standard scans and normal MSUS anatomy of hip (*all faculty*)

17:45 - 18:15 Systematic investigation of the knee – normal MSUS anatomy (*P. Balint*)



18:15 - 18:30 **Live demonstration:** Standard scans and normal MSUS anatomy of the knee (*P. Balint*)

18:30 - 19:30 **Workshop 6:** Supervised practical session on healthy subjects: Standard scans and normal MSUS anatomy of knee (*all faculty*)

20:15 ***Dinner***

**Friday, Oktober 11<sup>th</sup>, 2019**

**Standard sonographic scans and normal MSUS anatomy of the ankles and feet**

*Chairperson: P. Mandl*

08:30 - 09:00 Systematic investigation of the ankles and feet – normal MSUS anatomy (*P. Mandl*)

09:00 - 09:15 **Live demonstration:** Standard scans and normal MSUS anatomy of the ankles and feet (*P. Mandl*)

09:15 - 10:30 **Workshop 7:** Supervised practical session on healthy subjects: Standard scans and normal MSUS anatomy of ankles and feet (*all faculty*)

10:30 - 11:00 **Coffee break**

**Basic pathologies, image documentation, MSUS artefacts and pitfalls**

*Chairperson: C. Duftner*

11:00 - 11:30 Basic course pathologies part 1: Synovitis, Bursitis, Tenosynovitis (*A. Iagnocco*)

11:30 - 12:00 Basic course pathologies part 2: Erosions, Osteophytes, Enthesitis (*P. Mandl*)

12:00 – 12:15 Image documentation and reporting ultrasound findings and diagnosis (*C. Dejaco*)

12:15 - 12:45 MSUS artefacts and pitfalls (*J. Strunk*)

12:45 - 13:45 **Lunch**

**Lunch symposium (sponsored by UCB)**

*Chairperson:* C. Duftner

13:45- 14:15 "Spondyloarthritis – genderspezifisch betrachtet" (*J. Held*)

14:15- 15:15 **Workshop 8:** Supervised practical session on patients: Basic course pathologies (*all faculty*)

**What we learnt so far....**

*Chairperson:* C. Dejaco

15:15 - 15:45 **Live demonstration:** Standard scans and normal MSUS anatomy of wrists, hands, elbow and shoulder (*J. Strunk*)

15:45 - 16:15 **Live demonstration:** Standard scans and normal MSUS anatomy of hips, knees, ankle and feet (*W. Hartung*)

16:15 - 18:00 **Workshop 9:** Supervised practical session on healthy subjects: Standard scans and normal MSUS anatomy of wrist, hands, elbow, shoulder, hip, knee (*all faculty*)

18:00 - 18:15 **Summary, closing remarks and evaluation**  
(*M. Schirmer*)

This course is supported by:

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