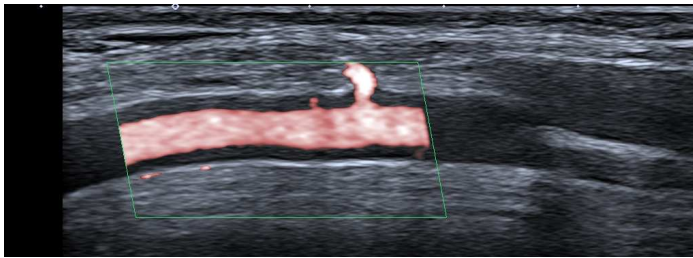




**MUSCULOSKELETAL SONOGRAPHY  
COURSE IN RHEUMATOLOGY  
- ADVANCED LEVEL -  
Graz, April 17th – 19th, 2024**



This course has been scientifically endorsed by:



Dear colleague,

ultrasound is increasingly used in rheumatology for diagnostic and monitoring purposes: It is valuable to detect subclinical inflammation in arthritis and may support the exclusion of active inflammation in patients with chronic joint pain.

Sonography may also be useful in patients with suspected large vessel arteritis, Sjögren's syndrome, carpal tunnel syndrome and several other rheumatic conditions.

In this advanced level EUROSON School course we will present the state of the art of ultrasound findings in inflammatory and non-inflammatory musculoskeletal conditions, connective tissue diseases and vasculitis. In addition, we will teach the application of sonography for the investigation of nerves, trauma and tumours. This course is composed of clinical lectures, live demonstrations and hands on sessions in small groups.

Most speakers and tutors are experienced sonographers and certified EULAR teachers as well as EFSUMB level 3 sonographers. The majority of speakers are also EFSUMB level 3 sonographers. We invite all physicians and health professionals interested to learn the applications of sonography in rheumatology to this EUROSON School course. We hope to welcome you in April 2024 in Graz, Austria

**Christian Dejaco and Rusmir Husic**

## GENERAL INFORMATION

### Course opening

Wednesday, April 17<sup>th</sup>, 2024 - h 17.00

### Course closing

Friday, April 19<sup>th</sup>, 2024 - h 19.00

### Official course language

English

### Congress Venue

#### Hotel Novapark

Fischeraustraße 22,

8051 Graz

[www.novapark.at](http://www.novapark.at)

### Scientific Organizer

#### **Christian Dejaco, MD, PhD, MBA**

Medical University Graz; Department of Rheumatology and Immunology; Rheumatology service; South Tyrol Health Trust; Hospital of Bruneck

#### **Rusmir Husic, MD**

Medical University Graz; Department of Rheumatology and Immunology;

### Faculty

*Luis Coronel, Spain (EULAR teacher), rheumatologist*

*Wolfgang Schmidt, Germany (EFSUMB level 3, EULAR teacher), rheumatologist*

*Christian Dejaco, Austria (EFSUMB level 3, EULAR teacher),*

*rheumatologist Christina Duftner, Austria (EULAR teacher),*

*rheumatologist Rusmir Husic, Austria (EULAR teacher), rheumatologist*

*Peter Mandl, Austria (EFSUMB level 3, EULAR teacher),*

*rheumatologist*

*Raphael Micheroli, Switzerland, (EULAR teacher),*  
*rheumatologist*

*Sarah Ohrndorf, Germany, (EULAR teacher), rheumatologist*

*Giorgio Tamborrini, Switzerland (EFSUMB level 3, EULAR*

*teacher), rheumatologist*

*Tobias DeZordo, Italy, radiologist*

### Tutor for practical workshops

*Tommaso Buzzegoli, Italy, radiologist*

### Organizing Secretariat

#### **Noelle Tybery**

Department of Rheumatology and Immunology

8036 Graz, Austria

### Course registration

Course applications (no specific form required) containing a contact e-mail address should be e-mailed to

[noelle.tybery@klinikum-graz.at](mailto:noelle.tybery@klinikum-graz.at) or faxed to +43-316-

38517813. For questions, please call +43-316-38517779

Registration is open for all attendees from EULAR member countries. The number of participants is limited to 25; for workshops, there will be a maximum of 5 participants per tutor.

The course fee is **1000 EUR** per participant (tax, lodging and food included).

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

- To refresh basic and intermediate level course contents
- To learn advanced level pathologies including characteristic B-mode and Doppler findings in inflammatory rheumatic diseases
- To learn findings in patients with peripheral nerve entrapment syndromes
- To learn characteristic findings in vasculitis and connective tissue diseases
- To get an introduction into the recognition of soft tissue tumours, sports injuries and pediatric rheumatology
- To learn about new developments and their relevance in the field of musculoskeletal ultrasound

### **MAIN TOPICS**

- Basic, intermediate and advanced level pathologies and ultrasound based differential diagnosis of rheumatic diseases
- Peripheral nerve entrapment syndromes
- Ultrasound in vasculitis and connective tissue diseases
- Sonographic findings in patients with tumours, sports injuries and children with rheumatic diseases
- New developments: sonoelastography, 3D/4D ultrasound

### **LIVE DEMONSTRATIONS**

- To demonstrate standard scans, basic, intermediate and advanced level pathologies
- To demonstrate sonography of peripheral nerves and vessels
- To discuss common artefacts and pitfalls

### **WORKSHOPS**

- Supervised hands-on scanning of patients with rheumatic diseases
- Supervised introduction into sonography of peripheral nerves
- Supervised hands-on scanning of temporal arteries and salivary glands

### **REQUIREMENTS OF ATTENDEES**

- Previous participation at basic and intermediate-level courses as well as previous performance of >400 ultrasound scans is recommended

### **EXAM OF PRACTICAL SKILLS**

- A final practical exam will be offered to participants by international faculty members (not valid for EULAR certificate)

### **COURSE REGISTRATION**

The course is open for all attendees from EFSUMB member countries. Applications should be e-mailed to [noelle.tybery@klinikum-graz.at](mailto:noelle.tybery@klinikum-graz.at)

## SCIENTIFIC PROGRAMME

### Day 1

16:00-17:00      **Registration**

17:00-17:15      Welcome (C. Dejaco)

#### **Refresher: standard scans and specific pathologies of hands and feet**

*Chairperson: C. Duftner*

17:15-17:45      Standard scans; basic, intermediate and advanced level pathologies at hands and feet (S. Ohrndorf)

17:45-18:00      **Live demonstration:** B-mode and Power Doppler findings in Rheumatoid Arthritis (S. Ohrndorf)

18:00-18:45      **Workshop 1:** Supervised practical session: Hands and feet in patients with rheumatic diseases (C. Duftner, S. Ohrndorf, L. Coronel, R. Husic)

18:45-19:10      Quantification and scoring systems of synovitis and tenosynovitis, minimal requirements of documentation (C. Duftner)

19:10-19:30      Case series hands: Differentiation of rheumatoid arthritis, psoriatic arthritis, and osteoarthritis by sonography (R. Husic)

19:30-20:00

**Satelite Symposium:** to be named

20:15

**Dinner**

### Day 2

#### **Refresher: standard scans and specific pathologies at large joints of upper limbs**

*Chairperson: C. Dejaco*

8:30-9:00      Standard scans; basic, intermediate and advanced level pathologies of elbow (L. Coronel)

9:00-9:30      Standard scans; basic, intermediate and advanced level pathologies of shoulder (G. Tamborrini)

9:30-9:50      **Live demonstration:** Standard scans and pathologies of large joints of upper limbs (G. Tamborrini)

9:50-10:10      Case series: Specific pathologies in shoulder scans of patients with polymyalgia rheumatica, rheumatoid arthritis and degenerative disorders (C. Duftner)

10:10-10:35

**Coffee break**

10:35-11:40

**Workshop 2:** Supervised practical session: large joints of upper limbs in patients with rheumatic diseases (*G. Tamborrini, L. Coronel, R. Micheroli, P. Mandl*)

**Refresher: standard scans and specific pathologies at large joints of lower limbs**

*Chairperson: R. Husic*

11:45-12:15

Standard scans; basic, intermediate and advanced level pathologies of hip and knee (*R. Micheroli*)

12:15-12:30

**Live demonstration:** Standard scans and pathologies of hip and knee (*R. Micheroli*)

12:30-12:50

Standard scans; basic, intermediate and advanced level pathologies of ankle (*P. Mandl*)

12:50-13:00

**Live demonstration:** Standard scans and pathologies of ankle (*P. Mandl*)

13:00-14:00

**Lunch**

14:00-15:00

**Workshop 3:** Supervised practical session: large joints of lower limbs in patients with rheumatic diseases (*P. Mandl, R. Micheroli, T. Dezordo, L. Coronel*)

**Refresher: enthesal and ligament lesions**

*Chairperson: P. Mandl*

15:00-15:30

Enthesitis: specific findings and quantification (*R. Micheroli*)

15:30-16:00

Ligament lesions including sport injuries (*T. Dezordo*)

16:00-16:30

**Coffee break**

16:30-17:30

**Workshop 4:** Supervised practical session: Entheses and ligaments in patients with rheumatic diseases (*R. Micheroli, S. Ohrndorf, P. Mandl, G. Tamborrini*)

**Role of ultrasound in vasculitis**

*Chairperson: R. Micheroli*

17:30-18:10

Evaluation of vessels and detection of vasculitis by sonography: Diagnostic value in clinical practice, ultrasound settings and possible pitfalls (*W. Schmidt*)

18:10-18:30

**Live demonstration:** Ultrasound of temporal arteries and large vessels (*W. Schmidt*)

18:30-19:20

**Workshop 5:** Supervised practical session: Supervised practical session on large vessels (*W. Schmidt, C. Dejaco, C. Duftner, R. Micheroli*)

19:20-19:50

**Satelite Symposium:** to be named

20:30

**Dinner**

### Day 3

#### Special indications of sonography in rheumatology (1)

Chairpersons: C. Dejaco

8:30- 08:50 Muscle sonography: Myositis, Myopathy and (sports related) muscle injury (G. Tamborrini)

08:50- 9:05 Specific aspects of ultrasound in pediatric rheumatology (W. Schmidt)

9:05- 9:20 Sonography of salivary glands in patients with Sjögren's syndrome (C. Dejaco)

9:20- 9:35 Soft tissue masses, loose bodies, foreign bodies and common tumours (L. Coronel)

9:35-10:30 **Workshop 6:** Supervised practical session: Supervised practical session on salivary glands and other special indications (P. Mandl, L. Coronel, W. Schmidt, G. Tamborrini)

10:30-11.00 **Coffee break**

#### Special indications of sonography in rheumatology (2)

Chairpersons: R. Husic

11:00- 11:20 Value of ultrasound-guided interventions in clinical practice (C. Duftner)

11:20- 11:45 Scanning of sacroiliac joints (T. Dezordo)

11:45- 12:00 **Live demonstration:** Sacroiliac joint sonography (T. Dezordo)

12:00-13:00 **Workshop 7:** Supervised practical session: Freestyle – the participants decide what to scan (R. Husic, C. Duftner, T. Buzzegoli, T. Dezordo)

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

#### Peripheral nerve sonography for the rheumatologist

Chairperson: G. Tamborrini

14:00-14:30 Sonoanatomy and pathology of peripheral nerves and (T. Dezordo)

14:30-15:00 **Live demonstration:** Sonography of peripheral nerves (T. Dezordo)

15:05-16:00 **Workshop 8:** Supervised practical session: Sonography of peripheral nerves (T. Dezordo, T. Buzzegoli, L. Coronel, G. Tamborrini)

16:00-16:30 **Coffee break**

#### Research of sonography in rheumatology

Chairpersons: R. Husic

16:30- 16:45 What are the upcoming ultrasound technologies in rheumatology? (sonoelastography, artificial intelligence dimensional MSUS) (S. Ohrndorf)

16:45- 17:00 How to improve your ultrasound skills (courses, e-learning) (G. Tamborrini)

17:00- 17:30

Case series/Quiz: Uncommon sonographic pathological findings in rheumatology (*R. Micheroli*)

**Practical skills examination**

17:30- 18:30

**Workshop 9 exam:** Examination of practical ultrasound skills and discussion of images and cases (*C. Dejaco, W. Schmidt, S. Ohrndorf*)

18:30-19:00

**Summary and closing remarks (*R. Husic*)**



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