



**Intermediate Ultrasound Course  
in Antalya (Belek), Turkey  
March 24-26, 2022**

**Programme**

**Venue: Calista Hotel, Belek**

**Course fee including course registration, hotel for 3 nights & meals: 950 €**

**Number of participants: 60**

**Language: English**

**Reserve your participation by email: [usgantalya@gmail.com](mailto:usgantalya@gmail.com)**

**Educational Objectives**

Identify the spectrum of musculoskeletal pathology with ultrasound that commonly appears in rheumatological practice

Know physics and application of Doppler sonography for musculoskeletal ultrasound

Ability to perform sonographic-guided articular and periarticular injections.

**This course has been scientifically endorsed by**

**eular**

EUROPEAN ALLIANCE  
OF ASSOCIATIONS  
FOR RHEUMATOLOGY

## **Scientific organizers**

Prof. Marina Backhaus  
Parkklinik Weißensee  
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Schoenstrasse 80, 13086 Berlin, Germany

Prof. Wolfgang A. Schmidt  
Immanuel Krankenhaus Berlin  
Medical Centre for Rheumatology Berlin-Buch  
Lindenberger Weg 19, 13125 Berlin, Germany

Prof. Ender Terzioglu  
Akdeniz University Medical School Department of Internal Medicine  
Division of Rheumatology and Clinical Immunology-Allergy,  
07050 Antalya, Turkey

## **Organizing Secretariat**

Secretary: Prof. Ender Terzioglu  
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## **Faculty (All speakers are EULAR teachers):**

Prof. Marina Backhaus, Germany  
Dr. George Bruyn, The Netherlands  
PD Dr. Peter Mandl, Austria  
Prof. Nevsun Inanc, Turkey  
PD Dr. Christina Duftner  
Dr. Esperanza Naredo, Spain  
PD Dr. Sarah Ohrndorf, Germany  
Prof. Dr. Salih Pay, Turkey  
Prof. Wolfgang Schmidt, Germany  
Prof. Ender Terzioglu, Turkey

## Requirements for participation:

- Participants should have attended a EULAR basic MSUS course or a EULAR scientifically-endorsed basic MSUS course.
- Prior to acceptance to the course, applicants should send to the a total of 6 normal examinations of each joint region in one Power Point file (i.e. shoulder, elbow, wrist & hand, hip, knee, ankle & foot), according to the EULAR Guidelines for Musculoskeletal Ultrasound in Rheumatology (Ref. Backhaus M, et al. Ann Rheum Dis 2001) to the course organizers via email: [usgantalya@gmail.com](mailto:usgantalya@gmail.com) .
- Images should be presented in a power point file. Important: Each slide should include: - One imaged structure each in longitudinal and transverse plane - A legend with the anatomic area, imaged structure and scanning planes - Parameters of the ultrasound machine - Identity of the person scanned should be removed.
- The faculty members need to provide assessment and feedback. Applicants might need to be asked to repeat the ultrasound examinations and submit the images again for assessment by the faculty.
- Upon approval of the assessment, the applicant needs to be asked to register for the course.
- Participants should bring a total of 60 normal ultrasound examinations (each in a power point presentation) on a USB stick to the course. The faculty reserves the right to randomly request and audit the full set of ultrasound examinations from each participant.
- It is highly recommended to participate in the EULAR Online Introductory Ultrasound Course ( <http://www.eular-us-onlinecourse.org/> ) before attending this EULAR-endorsed Intermediate Ultrasound Course. The online course is required for those aiming at achieving Level I EULAR competency in Musculoskeletal Ultrasound.

## Schedule

Thursday, 24<sup>th</sup> March

|       | Topic  | Speaker           |                      |
|-------|--|-------------------|----------------------|
| 8.00  | Registration                                       |                   |                      |
| 9.00  | Opening  | Ender Terzioglu   |                      |
| 9.15  | Indications for B-mode ultrasound in Rheumatology  | Sarah Ohrndorf    |                      |
| 9.40  | Indications for Doppler ultrasound in Rheumatology | Salih Pay         |                      |
| 10.00 | Physics and settings of Doppler ultrasound         | Esperanza Naredo  |                      |
| 10.30 | Machine settings - focus on Doppler settings       | Hands-on scanning | No rotation          |
| 11.15 | Coffee break                                       |                   |                      |
| 11.30 | Brush-up sono-anatomy and structures               | Hands-on scanning | Rotate once at 12.15 |
| 13.00 | Lunch break  |                   |                      |
| 15.00 | Introduction to synovitis and tenosynovitis        | Peter Mandl       |                      |
| 15.15 | Pathology of the hand                              | Nevsun Inanc      |                      |
| 15.45 | Pathology of the hand                              | Hands-on scanning | Rotate every 30 min  |
| 17.15 | Coffee break                                       |                   |                      |
| 17.30 | Introduction to enthesitis                         | Christina Duftner |                      |
| 17.45 | Pathology of the elbow                             | Salih Pay         |                      |
| 18.00 | Pathology of the elbow                             | Hands-on scanning | Rotate every 30 min  |
| 19.30 | Dinner   |                   |                      |

Friday, 25<sup>th</sup> March

|       | Topic   | Speaker           |                     |
|-------|---|-------------------|---------------------|
| 9.00  | Review: How to examine the shoulder             | George Bruyn      |                     |
| 9.20  | Pathology of the shoulder                       | Christina Duftner |                     |
| 10.00 | Introduction to osteoarthritis / bone pathology | Peter Mandl       |                     |
| 10.30 | Coffee break                                    |                   |                     |
| 10.45 | Pathology of the shoulder                       | Hands-on scanning | Rotate every 30 min |
| 12.15 | Pathology of the hip                            | Ender Terzioglu   |                     |
| 12.30 | Introduction to crystal arthropathy             | George Bruyn      |                     |
| 13.00 | Lunch break                                     |                   |                     |
| 15.00 | Pathology of the knee                           | Ender Terzioglu   |                     |
| 15.30 | Pathology hip and knee                          | Hands-on scanning | Rotate at 16.10     |
| 16.45 | Coffee break                                    |                   |                     |
| 17.00 | Pathology of foot and toes                      | Wolfgang Schmidt  |                     |
| 17.30 | Pathology of foot and toes                      | Hands-on scanning | Rotate every 30 min |
| 19.30 | Dinner  |                   |                     |

Saturday, 26<sup>th</sup> March

|       | Topic   | Speaker           |                 |
|-------|---|-------------------|-----------------|
| 9.00  | Quantification: Scoring with ultrasound             | Marina Backhaus   |                 |
| 9.20  | How to implement ultrasound in daily practice       | Sarah Ohrndorf    |                 |
| 9.45  | Variable pathology                                  | Hands-on scanning | Rotate at 10.15 |
| 10.45 | Coffee break  |                   |                 |
| 11.00 | Ultrasound guided procedures                        | Esperanza Naredo  |                 |
| 11.40 | Introduction to vascular ultrasound in rheumatology | Wolfgang Schmidt  |                 |
| 12.00 | Ultrasound guided procedures                        | Hands-on scanning | No rotation     |
| 12.30 | Evaluation / Sono-quiz                              | Marina Backhaus   |                 |
| 13.30 | Summary and Conclusions                             | Ender Terzioglu   |                 |
| 14.00 | End of the course                                   |                   |                 |

### Timing

|          | Total time | Hands-on scanning |
|----------|------------|-------------------|
| Thursday | 8:00       | 5:15              |
| Friday   | 8:00       | 4:45              |
| Saturday | 4:45       | 1:30              |
| Total    | 20:45      | 11:30             |