

Basic and Intermediate Levels

1-3 December 2016  
Athens Greece



Musculoskeletal Imaging Techniques  
Ongoing Sonography  
A task force for Greek Rheumatologists

# 3<sup>rd</sup> International Musculoskeletal Ultrasound Course

General information  
and Course program

Scientifically Endorsed by **eular**

## 3<sup>rd</sup> MUSCULOSKELETAL SONOGRAPHY COURSE FOR RHEUMATOLOGISTS – BASIC AND INTERMEDIATE LEVEL

Athens, December 01<sup>st</sup>- 03<sup>rd</sup>, 2016

**Musculoskeletal sonography course for rheumatologists, Athens 2016** intends to be a combination of lectures and practical sessions. It is going to be a two-level course - the basic and the intermediate – consisting of theoretical talks and supervised hands-on scanning of healthy persons and/or patients with musculoskeletal disorders.

**Sponsorship:** ABBVIE, UCB, MSD, PFIZER, GE, ESAOTE, SIEMENS, PHILIPS. Total amount of sponsorship will not exceed 40% of total cost for the Course. General Electric Health Care, Esaote, Siemens and Philips will provide ultrasound equipment free of charge. Sponsorships will cover part of travel and accommodation expenses for the faculty, course venue and organization costs. Sponsors will not have any influence on the course program, scientific and other content, or speakers in any way.

### **CME Credits**

The course will apply for EACCME/UEMS credits of continuing medical education.

### **Registration**

Registration is intended to be open to all EULAR member countries. Participants registering for the basic MSUS course endorsed by EULAR will have priority if they have already participated in the EULAR Online Introductory US course.

### **Participation & Accommodation fees**

The basic registration fee of 200 euros includes admission to all conference sessions, workshops, conference kit, conference session materials, certificate of attendance. If accommodation (for two nights – single room) and coffee breaks and meals needed, the total course participation fee will be increased up to 600 euros.

## ORGANIZATION AND COMMITTEE

### Scientific Director:

**Prof. Annamaria Iagnocco**

Rheumatology Unit,  
Dipartimento di Medicina Interna e Specialità Mediche,  
Sapienza Università di Roma, Roma, Italy  
**e-mail:** annamaria.iagnocco1@gmail.com

### Local Organizer:

**M.I.T.O.S. (Musculoskeletal Imaging Techniques:  
Ongoing Sonography- a Task Force for Greek Rheumatologists)**

## FACULTY

The speakers will come from major European musculoskeletal ultrasound research centers and are rheumatologists mostly involved in previous EULAR courses. The contacted faculties are:

### Faculties:

**Esperanza Naredo**, Spain

**Peter Balint**, Hungary

**Nemanja Damjanov**, Serbia

**Annamaria Iagnocco**, Italy

**Emilio Filippucci**, Italy

**Francesco Porta**, Italy

**Dimitris Karokis**, Greece

**Ioannis Raftakis**, Greece

**Spyros Nikas**, Greece

**Amalia Raptopoulou**, Greece

**Caterina Siagkri**, Greece

**Slavica Prodanović**, Serbia

**Mihaela Micu**, Romania

**Artur Bachta**, Poland

**Giasna G. Kakavouli**, Greece

### Instructors:

**Francesco Porta**, Italy

**Slavica Prodanović**, Serbia

**Goran Radunović**, Serbia

**Dimitris Karokis**, Greece

**Ioannis Raftakis**, Greece

**Spyros Nikas**, Greece

**Georgios Kampakis**, Greece

**Amalia Raptopoulou**, Greece

**Caterina Siagkri**, Greece

**Mihaela Micu**, Romania

**Artur Bachta**, Poland

**Giasna G. Kakavouli**, Greece

## GENERAL INFORMATION

|                          |   |
|--------------------------|---|
| <b>Course's opening</b>  | Thursday, December 01 <sup>st</sup> , 2016 - h 12.00                    |
| <b>Course's closing</b>  | Saturday, December 03 <sup>rd</sup> , 2016- h 16:30                     |
| <b>Participants</b>      | The number of participants in each of the Courses will be limited to 48 |
| <b>Official language</b> | English   |
| <b>Congress Venue:</b>   | Royal Olympic Hotel<br>Athens, Greece                                   |

## M.I.T.O.S. GROUP



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phone: +306944443326; +302351079839

## Contact and Technical Organizer



### **Synthesis Group S.A.**

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Web site: [www.synthesispco.com](http://www.synthesispco.com)

## **BASIC LEVEL**

### **OBJECTIVES:**

- To learn technical characteristics and setting of ultrasound equipment for rheumatology.
- To learn the systematic standardized sonographic scanning method of each anatomical region, according to the EULAR guidelines.
- To learn basic normal musculoskeletal ultrasonographic (MSUS) anatomy.
- To learn basic pathological MSUS findings.

### **MAIN TOPICS:**

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

### **WORKSHOPS:**

- Practical handling of the ultrasound machine 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.

## SCIENTIFIC PROGRAM

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### Thursday - December 1<sup>st</sup>, 2016

- 12.00-14.00 **Registration**
- 12.00-13.45 **Lunch**
- 13.45-14.00 **Welcome**  
**A. Iagnocco, N. Damjanov, H. Berberidis, D. Karokis, D. Boumpas**
- 14.00-14.10 Entering test of knowledge – Basic Level  
**J. Raftakis**
- 14.15-14.30 Entering test of knowledge – Intermediate Level  
**J. Raftakis**
- 14.30-15.00 Chairpersons: **E. Naredo, J. Raftakis**  
 Sonographic pattern of the musculoskeletal tissues and technical characteristics and setting of ultrasound equipments for rheumatology  
**J. Raftakis**
- 15.00-15.15 **Mini break – hall changing**
- 15.15-16.45 **Workshop:** Supervised practical handling of the ultrasound machine settings
- 16.45-17.00 **Coffee Break**
- 17.00-17.25 Chairpersons: **F. Porta, S. Nikas**  
 History and basic physics of MSUS.  
**S. Nikas**
- 17.25-18.00 Normal tissue and joint anatomy. US and correlative anatomy and histology  
**N. Damjanov**
- 18.00-18.30 Artifacts and misinterpretation in MSUS.  
**F. Porta**
- 18.30-19.30 **Workshop:** Supervised practical handling of the normal MSUS anatomy
- 19.30-20.00 Chairpersons: **D. Karokis, E. Naredo**  
 Doppler physics and techniques. Colour and Power Doppler settings and its optimization  
**E. Naredo**
- 20.00-21.00 **Workshop:** Hands - on session. The Doppler basics - application

## SCIENTIFIC PROGRAM

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**Friday, December 2<sup>nd</sup>, 2016**

- 09.00-09.30 Chairpersons: **A. Iagnocco, G.G. Kakavouli**  
Sonographic semiology: tendinosis, partial and complete tendon tear, calcifications, articular cartilage lesions, cortical abnormalities, erosions - definition, detection and quantification  
**N. Damjanov**
- 09.30-10.00 Basic US lesions: synovitis, tenosynovitis and bursitis. Definition, detection and quantification  
**A. Iagnocco**
- 10.00-10.30 Enthesitis and enthesopathy  
**P. Balint**
- 10.30-11.00 **Coffee Break**
- 11.00-12.45 **Workshop: US semiology: normal and basic pathological findings**  
  
Chairpersons: **E. Naredo, C. Siagkri**
- 12.45-13.15 Standardized scanning of shoulder normal and basic pathological findings  
**C. Siagkri**
- 13.15-13.45 Standardized scanning of the elbow: normal and basic pathological findings  
**A. Raptopoulou**
- 13.45-14.30 **Lunch**
- 14.30-17.00 **Workshop: Supervised scanning technique of shoulder. Supervised scanning technique of elbow. Normal and basic pathological findings.**  
  
Chairpersons: **P. Balint, G. Radunovic**
- 17.00-17.30 Standardized scanning of the wrist and hand: normal and basic pathological findings  
**D. Karokis**
- 17.30-18.00 Standardized scanning of the hip: normal and basic pathologic findings  
**M. Micu**

## SCIENTIFIC PROGRAM

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**Saturday, December 3<sup>rd</sup>, 2016**

- 09.00-10.45 **Workshop:** Supervised hands-on scanning of patients with inflammatory and degenerative hand, wrist and hip
- 10.45-11.00 **Coffee Break**
- 11.00-11.30 **Chairpersons: S. Nikas, A. Raptopoulou**  
Standardized scanning of the knee: normal and basic pathological findings  
**S. Nikas**
- 11.30-12.00 Standardized scanning of the ankle and foot: normal and basic pathological findings  
**S. Prodanović**
- 12.00-12.30 US Application in Rheumatology  
**A. Iagnocco**
- 12.30-14.00 **Workshop:** Supervised hands-on scanning of patients with inflammatory and degenerative knee, ankle and foot
- 14.00-14.30 **Chairpersons: G.G. Kakavouli, E. Filippucci**  
Basic skills in sonographic guided arthrocentesis.  
**E. Filippucci**
- 14.30-15.30 **Workshop:** Basic skills in sonographic-guided arthrocentesis
- 15.30-15.45 Exit test of knowledge and closing remarks
- 15.45-16.45 **Lunch and certificate issuing**



## INTERMEDIATE LEVEL

### OBJECTIVES:

- To review the systematic standardized sonographic scanning method of each anatomical region, according to the EULAR guidelines
- To learn colour and power Doppler physics, application, indications and limitations
- To learn definition, ultrasound presentation and quantification of synovitis, synovial hypertrophy, effusion, erosion, tendinopathy, tenosynovitis, enthesitis and degenerative lesions
- To assess, quantify and/or score joint lesions
- To learn basic skills to perform sonographic-guided musculoskeletal injections
- To understand the role of musculoskeletal US in clinical and research practice

### MAIN TOPICS:

- Role of colour and power Doppler in rheumatology
- Colour and power Doppler physics and technology
- Applications, indication and limitations of colour and power Doppler
- Ultrasound presentation of synovitis, effusion, erosions, tendinopathies, tenosynovitis, enthesitis and degenerative lesions
- Role of ultrasound in diagnosis and monitoring of metabolic arthritis
- Role of ultrasound in monitoring patients with inflammatory joint diseases
- Standards of safety of ultrasound-guided punctures and injections sonographic system

### WORKSHOPS:

- Practical handling of the ultrasound machine settings and use of Colour and Power Doppler technology
- Supervised scanning of the patients with inflammatory and degenerative joint disease focused on detection of synovitis, effusion, erosions, tendinopathies, tenosynovitis, enthesitis and degenerative lesions.
- Supervised basic sonographic-guided musculoskeletal injections

## SCIENTIFIC PROGRAM

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**Thursday - December 1<sup>st</sup>, 2016**

- 12.00-14.00 **Registration**
- 12.00-13.45 **Lunch**
- 13.45-14.00 **Welcome**  
**A. Iagnocco, N. Damjanov, H. Berberidis, D. Karokis, D. Boumpas**
- 14.00-14.15 Entering test of knowledge - Basic Level  
**J. Raftakis**
- 14.15-14.30 Entering test of knowledge – Intermediate Level  
**J. Raftakis**
- 14.30-15.00 **Chairpersons: E. Naredo, J. Raftakis**  
Sonographic pattern of the musculoskeletal tissues and technical characteristics and setting of ultrasound equipments for rheumatology.  
**J. Raftakis**
- 15.00-15.15 **Mini break – hall changing**
- 15.15-15.45 **Chairpersons: E. Naredo, D. Karokis**  
Colour Doppler and Power Doppler (i.e. basis, optimizing setting and applications)  
**E. Naredo**
- 15.45-16.15 Colour and Power Doppler artifacts  
**E. Naredo**
- 16.15-16.45 **Coffee Break**
- 16.45-18.30 **Workshop:** Supervised practical handling on the US machine settings. Sonoanatomy: correct acquisition of images in normal musculoskeletal structures (muscles, tendons, bursae, ligaments, nerves, articular cartilage, joint space, joint recesses, joint capsules and bony profile). Colour and Power Doppler settings and its optimization.  
**Chairpersons: A. Iagnocco, P. Balint**
- 18.30-19.00 Basic US lesions: synovitis, bony cortex and cartilage. Definition, detection and quantification.  
**A. Bachtá**
- 19.00-19.30 Basic US lesions: cartilage and bone lesions in osteoarthritis  
**F. Porta**

## SCIENTIFIC PROGRAM

### Friday, December 2<sup>nd</sup>, 2016

- 08.00-09.30 **Workshop:** US semiology: pathological findings
- 09.00-11.00 **Workshop:** Supervised hands-on scanning of patients with inflammatory and degenerative joint disorders. How to detect and quantify synovitis (including Power Doppler), cartilage and bony lesions.
- Chairpersons: **A. Iagnocco, P. Balint**
- 11.00-11.20 Basic US lesions: tendinopathies, tenosynovitis.  
**A. Iagnocco**
- 11.20-11.45 B-mode and Doppler synovitis, tenosynovitis, tendinosis and tendon tear. Detection and pitfalls  
**N. Damjanov**
- 11.45-12.15 Basic US lesions: enthesitis, enthesopathy  
**P. Balint**
- 12.15-12.45 B-mode and Doppler enthesopathy and enthesitis. Detection and pitfalls  
**E. Filippucci**
- 12.45-14.00 **Workshop:** Supervised hands-on scanning of patients with inflammatory and degenerative joint and periarticular soft tissues disorders. How to detect and quantify musculoskeletal lesions
- 14.00-15.00 **Lunch**
- Chairpersons:** F. Porta, G.G. Kakavouli
- 15.00-15.30 Standardized scanning of the inflammatory and degenerative shoulder.  
**G.G. Kakavouli**
- 15.30-16.00 Standardized scanning of the inflammatory and degenerative elbow  
**J. Raftakis**
- 16.00-16.30 Standardized scanning of the inflammatory and degenerative hand and wrist.  
**D. Karokis**
- 16.30-17.00 **Coffee Break**
- 17.00-19.00 **Workshop:** Supervised hands-on scanning of patients with inflammatory and degenerative shoulder, elbow, hand and wrist

## SCIENTIFIC PROGRAM

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**Saturday, December 3<sup>rd</sup>, 2016**

- 09.00-09.30 Chairpersons: **C. Siagkri, E. Filippucci**  
Standardized scanning of the inflammatory and degenerative hip.  
**M. Micu**
- 09.30-10.00 Standardized scanning of the inflammatory and degenerative knee.  
**G.G. Kakavouli**
- 10.00-10.30 Standardized scanning of the inflammatory and degenerative ankle and foot.  
**C. Siagkri**
- 10.30-10.45 **Coffee Break**
- 10.45-11.30 **Workshop:** Supervised hands-on scanning of patients with inflammatory and degenerative hip
- 11.30-12.30 **Workshop:** Supervised hands-on scanning of patients with inflammatory and degenerative knee, ankle and foot
- 12.30-13.00 Chairpersons: **C. Siagkri, A. Iagnocco**  
Role of US in the diagnosis of crystal arthropathy  
**E. Filippucci**
- 13.00-13.30 Validation and scoring of synovial, tenosynovial and enthesal inflammation  
**A. Iagnocco**
- 13.30-14.00 Basic skills in sonographic-guided arthrocentesis  
**N. Damjanov**
- 14.00-15.00 **Workshop:** Basic skills in sonographic-guided arthrocentesis
- 15.00-15.15 Exit tests of knowledge and closing remarks
- 15.15-16.45 **Lunch and certificate issuing**

**APPLICATION FORM**

3<sup>rd</sup> MUSCULOSKELETAL ULTRASOUND COURSE  
(Basic & Intermediate Level), Athens, December 1<sup>st</sup> – 3<sup>rd</sup>, 2016

|  |  |              |                          |
|--|--|--------------|--------------------------|
| Surname                                    |  |              |                          |
| First name                                 |  |              |                          |
| Gender                                     | male <input type="checkbox"/>  | female       | <input type="checkbox"/> |
| Level                                      | basic <input type="checkbox"/>   | intermediate | <input type="checkbox"/> |
| Date of Birth                              |  |              |                          |
| Medical Specialty                          |  |              |                          |
| Country                                    |  |              |                          |
| Contact phone number                       |  |              |                          |
| Fax number                                 |  |              |                          |
| Mobile phone number                        |  |              |                          |
| e-mail                                     |  |              |                          |
| Institution<br>(name and address)          |  |              |                          |
| License Number                             |  |              |                          |
| Sponsor contact details<br>(if applicable) |  |              |                          |
| <b>Please tick appropriately</b>           |  |              |                          |
|  | <b>ACCOMMODATION</b>   |              |                          |
| Single room <input type="checkbox"/>       | 2 nights, arrival 1 <sup>st</sup> – departure 3 <sup>rd</sup> of December 2016 |              | <input type="checkbox"/> |
| Double room <input type="checkbox"/>       | 2 nights, arrival 1 <sup>st</sup> – departure 3 <sup>rd</sup> of December 2016 |              | <input type="checkbox"/> |

Fill in total amount of participation ..... €

Applicant's Signature

Application form should be signed and sent by **fax**: +30 210 4190905  
Or scanned and sent by **e-mail**: tzombola@synthesispc.com



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Ongoing Sonography  
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