

Basic and Intermediate Levels



A task force for Greek Rheumatologists
Musculoskeletal Imaging Techniques - Ongoing Sonography

7th International Musculoskeletal UltraSound Course

9th - 11th December, 2021
ATTC Center
Athens, Greece

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UNDER THE AUSPICES



Scientifically Endorsed by

eular

fighting rheumatic & musculoskeletal
diseases together

ORGANIZATION AND COMMITTEES

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Local Organizer:

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

Organizing Committee

Giasna Giokits Kakavouli

Dimitrios Karokis

Ioannis Raftakis

Caterina Siagkri

Scientific Committee

Dimitrios Karokis

Giasna Giokits Kakavouli

Ioannis Raftakis

Caterina Siagkri

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

Annamaria Iagnocco, Italy

Ahmed Abogamal, Egypt

Amalia Raptopoulou, Greece

Andrea Delle Sedie, Italy

Artur Bachta, Poland

Caterina Siagkri, Greece

Dimitris Karokis, Greece

Francesco Porta, Italy

Georgios Filippou, Italy

Georgios Kampakis, Greece

Giasna Giokits-Kakavouli, Greece

Gkikas Katsifis, Greece

Ioannis Raftakis, Greece

Nemanja Damjanov, Serbia

Peter Balint, Hungary

Peter Mandl, Austria

Slavica Prodanović, Serbia

Instructors

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Ahmed Abogamal, Egypt

Andrea Delle Sedie, Italy

Arthur Bachta, Poland

Caterina Siagkri, Greece

Dimitris Karokis, Greece

Francesco Porta, Italy

Georgios Filippou, Italy

Georgios Kampakis, Greece

Giasna Giokits-Kakavouli, Greece

Nemanja Damjanov, Serbia

Ioannis Raftakis, Greece

Peter Balint, Hungary

Peter Mandl, Austria

Slavica Prodanović, Serbia

Athanasios Fortis, Greece

Theodoros Natskos, Greece

Courses opening Thursday, December 9th, 2021 - h 12.00
Courses closing Saturday, December 11th, 2021 - h 16.45
Participants The number of participants in each of the Courses will be limited to 48
Official language English
Congress Venue ATTC - Center, Athens, Greece

Organizer
M.I.T.O.S. GROUP
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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

Thursday, December 9th, 2021

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- 12.00 - 14.00 **Registration**
- 12.00 - 13.30 **Lunch**
- 13.30 - 13.45 **Welcome**
A. Iagnocco, G. Giokits-Kakavouli, D. Boumpas, D. Vasilopoulos
- 13.45 - 14.00 **J. Raftakis** - Entering test of knowledge
- Chairpersons: A. Iagnocco, J. Raftakis**
- 14.15 - 14.45 **J. Raftakis** - Technical characteristics and setting of ultrasound equipments for Musculoskeletal diseases
- 14.45 - 15.00 **Mini Break (hall changing)**
- 15.00 - 16.30 **Workshop:** Supervised practical handling of the ultrasound machine settings
- 16.45 - 17.00 **Coffee Break**
- Chairpersons: F. Porta, A. Bachta**
- 17.00 - 17.25 **A. Bachta** - History and basic physics of MSUS
- 17.25 - 18.00 **P. Mandl** - Normal tissue and joint anatomy; Sonographic pattern of the musculoskeletal tissues
- 18.00 - 18.30 **F. Porta** - Artifacts and misinterpretation in MSUS
- 18.30 - 19.30 **Workshop:** Supervised practical handling of the normal MSUS anatomy
- Chairpersons: G. Kampakis, A. Iagnocco**
- 19.30 - 20.00 **G. Kampakis** - Image documentation; reporting US findings and diagnosis
- 20.00 - 21.00 **Workshop:** Hands-on session: normal MSUS anatomy and basic pathological findings
- 21.00 **Dinner**

SCIENTIFIC PROGRAM

Friday, December 10th, 2021

	Chairpersons: A. Iagnocco, G. Giokits-Kakavouli
09.00 - 09.30	N. Damjanov - Sonographic semiology; US and correlative anatomy and histology: articular cartilage lesions, cortical abnormalities; Basic pathology of tendons and ligaments (tendinosis, calcifications, tears)
09.30 - 10.00	A. Iagnocco - Basic synovial US lesions: synovitis, synovial hypertrophy, tenosynovitis and bursitis; Definition, detection and quantification
10.00 - 10.30	P. Balint - Enthesitis and enthesopathy
10.30 - 11.00	Coffee Break
11.00 - 12.45	Workshop: US semiology: normal and basic pathological findings
	Chairpersons: N. Damjanov, C. Siagkri
12.45 - 13.15	C. Siagkri - Standardized scanning of shoulder normal and basic pathological findings
13.15 - 13.45	A. Raptopoulou - Standardized scanning of the elbow: normal and basic pathological findings
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, D. Karokis
17.00 - 17.30	D. Karokis - Standardized scanning of the wrist and hand: normal and basic pathological findings
17.30 - 18.00	G. Kampakis - Standardized scanning of the hip: normal and basic pathologic findings
20.00	Dinner

SCIENTIFIC PROGRAM

Saturday, December 11th, 2021

- 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: **A. Iagnocco, S. Prodanovic**
J. Raftakis - Standardized scanning of the knee: normal and basic pathological findings
- 11.30 - 12.00 **S. Prodanovic** - Standardized scanning of the ankle and foot: normal and basic pathological findings
- 12.00 - 12.30 **A. Iagnocco** - US Application in management of Musculoskeletal Disorders
- 12.30 - 13.15 **Lunch**
- 12.15 - 14.45 **Workshop:** Supervised hands-on scanning of patients with inflammatory and degenerative knee, ankle and foot
- Chairpersons: **G. Giokits-Kakavouli, N. Damjanov**
N. Damjanov - Basic skills in sonographic guided arthrocentesis
- 15.15 - 15.45 **Workshop:** Basic skills in sonographic-guided arthrocentesis
- 15.45 - 16.00 Exit test of knowledge
- 16.00 - 16.30 Closing remarks and certificate issue

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, enthesopathy 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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12.00 - 13.30 **Lunch**

13.30 - 13.45 **Welcome**

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14.00 - 14.15 **J. Raftakis** - Entering test of knowledge

Chairpersons: **A. Iagnocco, J. Raftakis**

J. Raftakis - Technical characteristics and setting of ultrasound equipments for Musculoskeletal diseases

14.45 - 15.00 **Mini Break (hall changing)**

Chairpersons: **A. Iagnocco, G. Filippou**

15.00 - 15.20 **G. Filippou** - Doppler physics, technology and artefacts. Doppler setting optimization

15.20 - 15.40 **G. Katsifis** - Application, indications and limitations of Doppler in musculoskeletal US

15.40 - 16.00 **A. Delle Sedie** - Colour Doppler and power Doppler. Correlations between US imaging and histopathological findings

16.00 - 16.30 **Coffee Break**

16.30 - 18.15 **Workshop:** Supervised practical scanning of the different Doppler modalities. How to use and set the ultrasound equipment. The choice of the appropriate probe. Optimisation of Doppler settings. PDUS artefacts

Chairpersons: **A. Iagnocco, F. Porta**

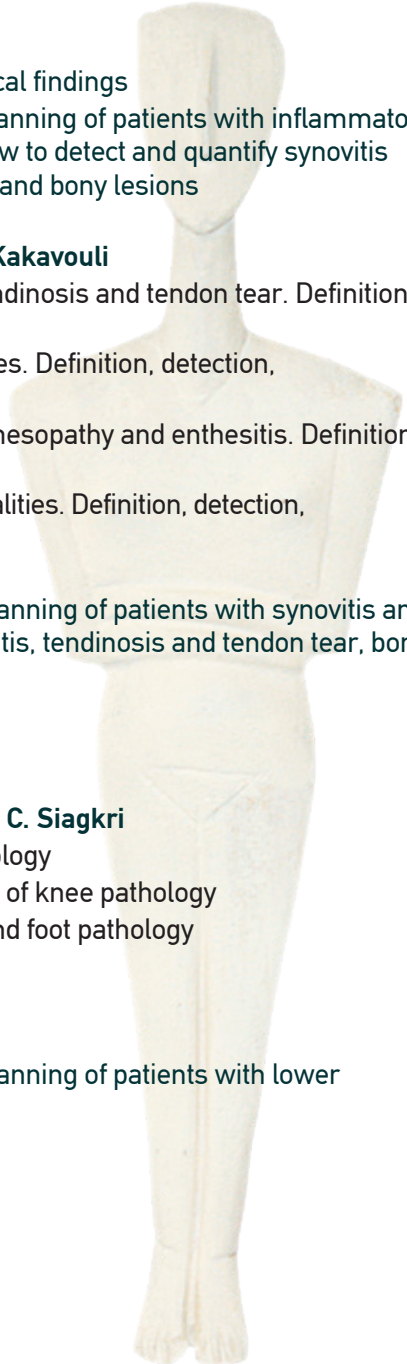
18.15 - 18.45 **A. Iagnocco** - B-mode and Doppler synovitis. Definition, detection, quantification and pitfalls

18.45 - 19.15 **F. Porta** - B-mode and Doppler tenosynovitis. Definition, detection, quantification and pitfalls

20.00 **Dinner**

SCIENTIFIC PROGRAM
Friday, December 10th, 2021

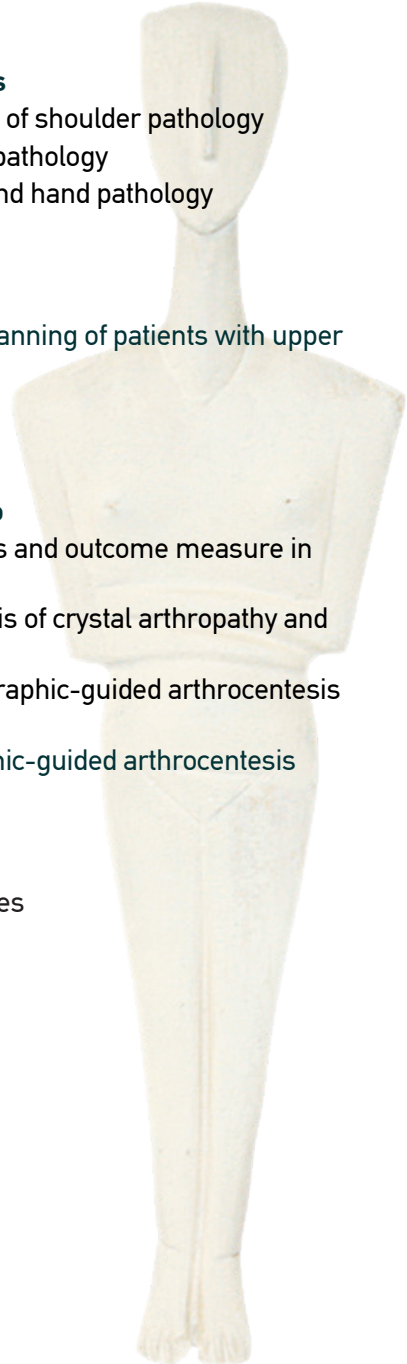
08.00 - 09.30	Workshop: US semiology-pathological findings
09.30 - 11.00	Workshop: Supervised hands-on scanning of patients with inflammatory and degenerative joint disorders; How to detect and quantify synovitis (including Power Doppler), cartilage and bony lesions
	Chairpersons: P. Balint, G. Giokits-Kakavouli
11.00 - 11.25	A. Bachta - B-mode and Doppler tendinosis and tendon tear. Definition, detection, quantification and pitfalls
11.25 - 11.50	A. Abogamal - US bone abnormalities. Definition, detection, quantification and pitfalls
11.50 - 12.15	P. Balint - B-mode and Doppler enthesopathy and enthesitis. Definition, detection, quantification and pitfalls
12.15 - 12.45	A. Abogamal - US cartilage abnormalities. Definition, detection, quantification and pitfalls
12.45 - 14.00	Workshop: Supervised hands-on scanning of patients with synovitis and tenosynovitis, enthesopathy/ enthesitis, tendinosis and tendon tear, bone and cartilage abnormalities
14.00 - 15.00	Lunch
	Chairpersons: G. Giokits-Kakavouli, C. Siagkri
15.00 - 15.30	P. Mandl - US diagnosis of hip pathology
15.30 - 16.00	G. Giokits-Kakavouli - US diagnosis of knee pathology
16.00 - 16.30	C. Siagkri - US diagnosis of ankle and foot pathology
16.30 - 17.00	Coffee Break
17.00 - 19.00	Workshop: Supervised hands-on scanning of patients with lower extremity pathology
20.00	Dinner



SCIENTIFIC PROGRAM

Saturday, December 11th, 2021

- 09.00 - 09.30 Chairpersons: **J. Raftakis, D.Karokis**
G. Giokits-Kakavouli - US diagnosis of shoulder pathology
- 09.30 - 10.00 **J. Raftakis** - US diagnosis of elbow pathology
- 10.00 - 10.30 **D. Karokis** - US diagnosis of wrist and hand pathology
- 10.30 - 10.45 **Coffee Break**
- 10.45 - 12.45 **Workshop:** Supervised hands-on scanning of patients with upper extremity pathology
- 12.45 - 13.30 **Lunch**
- 13.30 - 13.50 Chairpersons: **P. Mandl, A. Iagnocco**
A. Iagnocco - US: a tool for diagnosis and outcome measure in Musculoskeletal ultrasound
- 13.50 - 14.20 **P. Mandl** - Role of US in the diagnosis of crystal arthropathy and periarticular tissue (gout, CPPD)
- 14.20 - 14.50 **N. Damjanov** - Basic skills in sonographic-guided arthrocentesis
- 14.50 - 15.50 **Workshop:** Basic skills in sonographic-guided arthrocentesis
- 16.00 - 16.15 Exit tests of knowledge and
- 16.15 - 16.45 Closing remarks and certificate issues





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