

Basic and Intermediate Levels - Course Program

5th International Musculoskeletal UltraSound Course



29 Nov - 1 Dec 2018

Wyndham Grand Athens Hotel
Athens, Greece



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

Scientifically Endorsed by

eular

fighting rheumatic & musculoskeletal
diseases together

www.synthesispco.com/mitoscourse2018

GENERAL INFORMATION

ORGANIZATION AND COMMITTEE

Scientific Director

Prof. Annamaria Iagnocco

Dipartimento Scienze Cliniche e Biologiche,
Università degli Studi di Torino, Turin - 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:

Faculty:

Annamaria Iagnocco, Italy
Amalia Raptopoulou, Greece
Andreas Diamantopoulos, Norway
Artur Bachta, Poland
Caterina Siagkri, Greece
Dimitris Karokis, Greece
Emilio Filippucci, Italy
Francesco Porta, Italy
Georgios Filippou, Italy
Giasna G. Kakavouli, Greece
Goran Radunović, Serbia
Ioannis Raftakis, Greece
Mihaela Micu, Romania
Nemanja Damjanov, Serbia
Peter Balint, Hungary
Peter Mandl, Austria
Slavica Prodanović, Serbia

Instructors:

Amalia Raptopoulou, Greece
Andreas Diamantopoulos, Norway
Artur Bachta, Poland
Caterina Siagkri, Greece
Dimitris Karokis, Greece
Emilio Filippucci, Italy
Francesco Porta, Italy
Georgios Filippou, Italy
Giasna G. Kakavouli, Greece
Nemanja Damjanov, Serbia
Goran Radunović, Serbia
Ioannis Raftakis, Greece
Mihaela Micu, Romania
Peter Balint, Hungary
Peter Mandl, Austria
Slavica Prodanović, Serbia
Theodoros Natskos, Greece

GENERAL INFORMATION

Course's opening: Thursday, November 29th, 2018 - h 12.00

Course's closing: Saturday, December 1st, 2018 - h 16:30

Participants: The number of participants in each of the Courses will be limited to 48

Official language: English

Congress Venue: Wyndham Grand Athens, Athens, Greece

Organizer

M.I.T.O.S. GROUP

mitos.greek.rheum.us@gmail.com

Address:

Caterina Siagkri,

51 Mitropoleos, Thessaloniki – 54623, Greece

e-mail: caterinasiagkri@hotmail.com

phone: +306945776417; +302310250720

Giasna G. Kakavouli,

10 Solomou Street, Katerini – 60100, Greece

e-mail: giasnagiokic@gmail.com

phone: +306944443326; +302351079839

Contact and Technical Organizer



Synthesis Group

Address: 31 Ag. Varvaras Str.

164 52 Argyroupoli

Athens, Greece

Phone: + 30 210 9609400,

Fax: + 30 210 4190905

Email: **tzombola@synthesispco.com**

Website: 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

Thursday - November 29th, 2018

12:00-14:00	Registration
12:00-13:30	Lunch
13:30-13:45	Welcome
	A. Iagnocco, D. Karokis, D. Boumpas
13:45-14:00	Entering test of knowledge - Basic Level
	J. Raftakis
14:00-14:15	Entering test of knowledge - Intermediate Level
	J. Raftakis
	Chairpersons: A. Iagnocco, J. Raftakis
14:15 - 14:45	Technical characteristics and setting of ultrasound equipments for Musculoskeletal diseases
	J. Raftakis
	Live demo - A. Bachta
14:45 - 15:00	Mini break - Hall changing
15:00 - 16:45	Workshop: Supervised practical handling of the ultrasound machine settings
16:45- 17:00	Coffee Break
	Chairpersons: F. Porta, A. Bachta
17:00 - 17:25	History and basic physics of MSUS
	A. Bachta
17:25-18:00	Normal tissue and joint anatomy; Sonographic pattern of the musculoskeletal tissues
	P Mandl
18:00-18:30	Artifacts and misinterpretation in MSUS
	F. Porta
	Live demo - A. Bachta
18:30-19:30	Workshop: Supervised practical handling of the normal MSUS anatomy
	Chairpersons: G. Radunovic, D. Karokis
19:30-20:00	Image documentation; reporting US findings and diagnosis
	G. Radunovic
20:00-21:00	Workshop: Hands - on session; normal MSUS anatomy and basic pathological findings
21:00	Dinner

SCIENTIFIC PROGRAM

Friday, November 30th, 2018

- Chairpersons: **A. Iagnocco, G.G. Kakavouli**
- 09:00 - 09:30 Sonographic semiology; US and correlative anatomy and histology: articular cartilage lesions, cortical abnormalities; Basic pathology of tendons and ligaments (tendinosis, calcifications, tears)
N. Damjanov
Live demo - A. Diamantopoulos
- 09:30-10:00 Basic synovial US lesions: synovitis, synovial hypertrophy, 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: **N. Damjanov, C. Siagkri**
- 12:45 - 13:15 Standardized scanning of shoulder normal and basic pathological findings
C. Siagkri
Live demo - N. Damjanov
- 13:15-13:45 Standardized scanning of the elbow: normal and basic pathological findings
A. Raptopoulou
Live demo - N. Damjanov
- 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, M. Micu**
- 17:00 - 17:30 Standardized scanning of the wrist and hand: normal and basic pathological findings
D. Karokis
Live demo - P. Balint
- 17:30 - 18:00 Standardized scanning of the hip: normal and basic pathologic findings
M. Micu
Live demo - P. Balint
- 20:00 **Dinner**

SCIENTIFIC PROGRAM

Saturday, December 1st, 2018

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**

Chairpersons: **A. Diamantopoulos, S. Prodanović**

11:00 - 11:30 Standardized scanning of the knee: normal and basic pathological findings
J. Raftakis

Live demo - S. Prodanović

11:30 - 12:00 Standardized scanning of the ankle and foot: normal and basic pathological findings

S. Prodanović

Live demo - A. Diamantopoulos

12:00-12:30 US Application in management of Musculoskeletal Disorders

A. Iagnocco

12:30 -13:15 **Light Lunch**

12:15-14:45 **Workshop:** Supervised hands-on scanning of patients with inflammatory and degenerative knee, ankle and foot

Chairpersons: **G.G. Kakavouli, N. Damjanov**

14:45-15:15 Basic skills in sonographic guided arthrocentesis

N. Damjanov

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

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, 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

Thursday - November 29th, 2018

- 12:00 - 14:00 **Registration**
- 12:00 - 13:30 **Lunch**
- 13:30-13:45 **Welcome**
A. Iagnocco, N. Damjanov, D. Karokis, D. Boumpas
- 13:45-14:00 Entering test of knowledge - Basic Level
J. Raftakis
- 14:00-14:15 Entering test of knowledge - Intermediate Level
J. Raftakis
Chairpersons: **A. Iagnocco, J. Raftakis**
- 14:15 - 14:45 Sonographic pattern of the musculoskeletal tissues and technical characteristics and setting of ultrasound equipments for rheumatology
J. Raftakis
Live demo - A. Bachtá
- 14:45 - 15:00 **Mini Break - Hall changing**
Chairpersons: **A. Iagnocco, G. Filippou**
- 15:00 - 15:20 Doppler physics, technology and artefacts. Doppler setting optimization
G. Filippou
- 15:20 - 15:40 Application, indications and limitations of Doppler in musculoskeletal US
G. Filippou
Live demo - A. Bachtá
- 15:40 -16:00 Colour Doppler and power Doppler. Correlations between US imaging and histopathological findings
A. Diamantopoulos
- 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, P. Balint**
- 18:15 - 18:45 B-mode and Doppler synovitis. Definition, detection, quantification and pitfalls
A. Iagnocco
- 18:45 - 19:15 B-mode and Doppler tenosynovitis. Definition, detection, quantification and pitfalls
F. Porta
- 21:00 **Dinner**

SCIENTIFIC PROGRAM

Friday, November 30th, 2018

- 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. Mandl, G. Kakavouli**
- 11:00-11:25 B-mode and Doppler tendinosis and tendon tear. Definition, detection, quantification and pitfalls
G. Kakavouli
- 11:25 - 11:50 US bone abnormalities. Definition, detection, quantification and pitfalls
C. Siagkri
- 11:50-12:15 B-mode and Doppler enthesopathy and enthesitis. Definition, detection, quantification and pitfalls
P. Balint
- 12:15-12:45 US cartilage abnormalities. Definition, detection, quantification and pitfalls
G. Radunovic
- 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: **E. Filippucci, C. Siagkri**
- 15:00 - 15:30 US diagnosis of hip pathology
E. Filippucci
Live demo - P. Balint
- 15:30 - 16:00 US diagnosis of knee pathology
G.G. Kakavouli
Live demo - P. Balint
- 16:00 - 16:30 US diagnosis of ankle and foot pathology
C. Siagkri
Live demo - P. Balint
- 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 1st, 2018

Chairpersons: **J. Raftakis, P. Mandl**

09:00 - 09:30 US diagnosis of shoulder pathology
G.G. Kakavouli

Live demo - P. Mandl

09:30 - 10:00 US diagnosis of elbow pathology
J. Raftakis

Live demo - P. Mandl

10:00 - 10:30 US diagnosis of wrist and hand pathology
D. Karokis

Live demo - P. Mandl

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 **Light Lunch**

Chairpersons: **N. Damjanov, D. Karokis**

13:30-13:50 US: a tool for diagnosis and outcome measure in Musculoskeletal ultrasound
P. Mandl

13:50 - 14:20 Role of US in the diagnosis of crystal arthropathy and periartricular tissue (gout, CPPD)

E. Filippucci

14:20 - 14:50 Basic skills in sonographic-guided arthrocentesis

N. Damjanov

Live demo - S. Prodanovic

14:50 - 15:50 **Workshop:** Basic skills in sonographic-guided arthrocentesis

16:00 - 16:45 **Closing Remarks, exit tests of knowledge and certificate issue**

www.synthesispc.com/mitocourse2018

LOCAL ORGANIZER



mitos.greek.rheum.us@gmail.com

CONFERENCE SECRETARIAT:



SYNTHESIS GROUP S.A. 31 Agias Varvaras Str., 164 52 Argyroupoli - Athens, Greece

• Tel: +30 210 9609400 • Email: tzombola@synthesispc.com

www.synthesispc.com