General information and Course programme of the

4th MUSCULOSKELETAL SONOGRAPHY COURSE FOR RHEUMATOLOGISTS - BASIC LEVEL -

2nd MUSCULOSKELETAL SONOGRAPHY COURSE FOR RHEUMATOLOGISTS - INTERMEDIATE LEVEL -

Zagreb, September 28th- September 30th 2017.

This course has been scientifically endorsed by EULAR
Naslovna fotografija je vlasništvo arhive Hrvatske turističke zajednice (HTZ). Autor: Damir Fabijanić
**Scientific Director**  
Prof. Annamaria Iagnocco

**Executive director of the Course**  
Assist. Prof. Porin Perić, MD, PHD

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

- **Peter Balint**  
  Hungary, **Nemanja Damjanov**  
  Serbia, **Annamaria Iagnocco**  
  Italy, **Nadica Laktašić-Žerjavic**  
  Croatia, **Mihaela Micu**  
  Romania, **Georgios Filippou**  
  Italy, **Levent Oczakar**  
  Turkey, **Francesco Porta**  
  Italy, **Porin Perić**  
  Croatia, **Goran Radunovic**  
  Serbia, **Violeta Vlad**  
  Romania, **Marco Matucci-Cerinic**  
  Italy

**Instructors**  
- **Mislav Cerovec**  
  Croatia, **Nemanja Damjanov**  
  Serbia, **Darija Granec**  
  Croatia, **Tatjana Kehler**  
  Croatia, **Nadica Laktašić-Žerjavic**  
  Croatia, **Miroslav Mayer**  
  Croatia, **Mihaela Micu**  
  Romania, **Tomislav Nemčić**  
  Croatia, **Levent Oczakar**  
  Turkey, **Francesco Porta**  
  Italy, **Porin Perić**  
  Croatia, **Goran Radunović**  
  Serbia, **Violeta Vlad**  
  Romania

**Course opening**  
Thursday, September 28th  
2017. - 12:00 h

**Course closing**  
Saturday, September 30th  
2017. - 15:00 h

**Participants**  
The number of participants is limited to 30 for each Course (basic and intermediate)

**Official language**  
English

**Congress Venue:** **Hotel Sheraton,** Kneza Borne 2, 10000 Zagreb, Croatia, www.hotel-sheratonzagreb.com/hr

**Reservations:**  
phone: +385 1 48 111 55, Fax: +385 1 48 189 14, e-mail: zagreb@atlantis-travel.hr, www.atlantis-travel.hr

**Scientific Organizer:** **Prof. Annamaria Iagnocco**

**Executive director of the Course:** **Porin Perić, MD, PHD**

**Assistant Professor - Department of Rheumatology,**  
Clinical Hospital Center, Zagreb, Kišpaticeva 12, 10000 Zagreb, Croatia e-mail: porin.peric@gmail.com

**Organizing Secretariat:** **Croatian Society for Rheumatology**  
Šubićeva 9, 10000 Zagreb, Croatia  
Phone: +385 1 2388-171, Fax: +385 1 2388-289  
e-mail: porin.peric@gmail.com  
www.reumatologija.org
Musculoskeletal sonography course for rheumatologists, Zagreb 2017 is intended to be a combination of lectures and practical sessions. The course is consisted of theoretical talks and supervised hands-on scanning of healthy persons and/or patients with musculoskeletal disorders.

Sponsorship: Esaote, Olympus, Philips, MSD, GE, Abbvie, Pfizer, Novartis. Esaote, Olympus, Philips and GE will provide ultrasound equipment free of charge.

Sponsors will not have any influence on the course programme, scientific and other content, or speakers in any way.

The Course is in a process of CME accreditation at the Croatian Ministry of Health.

Registration is intended to be opened for all EULAR member countries.

Formal evaluation of the course will be performed by all attendees at the end of the Course.

Registration fee: 1000 EUR per person (three days course). Food and accommodation are included in the price.

The number of participants will be 30 people for each Course.
**OBJECTIVES**

- To learn technical characteristics and setting of ultrasound equipments for rheumatology
- To learn basic normal musculoskeletal ultrasoundographic anatomy (MSUS).
- To learn basic pathological MSUS findings
- To learn the systematic standardized sono-graphic scanning method of each anatomical region, according to the EULAR guidelines
- Applications, indications and limitations of MSUS in rheumatology
- Image documentation
- Basics of Colour and Power Doppler application to detect synovial and entheseal inflammation

**MAIN TOPICS**

- Ultrasound physics and technology, technical characteristics of ultrasound equipments in rheumatology, applications, indications and limitations of MSUS
- MSUS anatomy, artefacts 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 (ten-dinosis, tenosynovitis, partial and complete tendon tear, enthesopathy, bursitis, calcifications, articular cartilage lesions, cortical abnormalities and joint synovitis).
- Reporting US findings and diagnosis
WORKSHOP

• Practical handling of the ultrasound system 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
• Supervised assessment of the basic somographic symptoms or inflammation severity in grades

TIMETABLE

• Musculoskeletal Sonography Course for Rheumatologists, Basic Level, consists of 20 hours of activities within 3 days (lectures: 30% of total time; practical training on models and/or patients with musculoskeletal disorders: 70%)

SPONSORSHIP

Authorized Distributor
GE Healthcare

 abbvie
12:00-14:00 Registration
12:00-13:30 Lunch
14:00-14:15 Welcome A. Iagnocco, B. Anić, P. Perić
14:15-14:30 Entering test of knowledge

Chairpersons: P. Balint, P. Perić
14:30-15:00 History and basic physics of MSUS. L Oczakar.
15:00-15:20 Coffee break
15:20-16:00 Normal tissue and joint anatomy. US and correlative gross anatomy and histology. P. Balint

16:00-16:25 Artifacts and misinterpretation in MSUS. P. Balint
16:25-16:50 Technical characteristics and setting of ultrasound equipments for rheumatology. A. Iagnocco
16:50-17:10 Coffee break

Chairpersons: F. Porta, P. Perić
18:40-19:10 Reporting ultrasound findings and diagnosis. F. Porta
19:10-20:30 Workshop: Supervised reporting of ultrasound findings and diagnosis.
20:30 Dinner
**Friday, September 29th 2017.**

<table>
<thead>
<tr>
<th>TIME</th>
<th>PROGRAMME</th>
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<tbody>
<tr>
<td>09:00-09:40</td>
<td><strong>Sonographic semiology (tendinosis, tenosynovitis, partial and complete tendon tear, entesopathy, bursitis, calcifications, articular cartilage erosions, cortical abnormalities and joint synovitis).</strong> <strong>N. Damjanov</strong></td>
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<tr>
<td>09:40-10:20</td>
<td><strong>Enthesitis and enthesopathy.</strong> <strong>V. Vlad</strong></td>
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<td>10:20-10:40</td>
<td><strong>Coffee break</strong></td>
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<tr>
<td>10:40-11:10</td>
<td><strong>Standardized scanning of the hip: normal and basic pathologic findings.</strong> <strong>M. Micu</strong></td>
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<tr>
<td>11:10-12:30</td>
<td><strong>Workshop:</strong> Supervised scanning technique of hip. Normal and basic pathological findings.</td>
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<tr>
<td>12:30-13:00</td>
<td><strong>Standardized scanning of the knee: normal and basic pathological findings.</strong> <strong>F. Porta</strong></td>
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<tr>
<td>13:00-14:20</td>
<td><strong>Workshop:</strong> Supervised scanning technique of knee. Normal and basic pathological findings.</td>
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<td>14:20-15:30</td>
<td><strong>Lunch</strong></td>
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<td>15:30-15:50</td>
<td><strong>Chairpersons:</strong> <strong>G. Filippou, P. Perić</strong></td>
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<tr>
<td>15:50-18:00</td>
<td><strong>Standardized scanning of the shoulder: normal and basic pathological findings.</strong> <strong>G. Filippou</strong></td>
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<td>20:00</td>
<td><strong>Dinner</strong></td>
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<tr>
<td>09:00-09:20</td>
<td>Standardized scanning of the wrist and hand: normal and basic pathological findings. <em>P. Perić</em></td>
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<tr>
<td>09:20-09:40</td>
<td>Standardized scanning of the elbow: normal and basic pathological findings. <em>N. Laktašić-Žerjavić</em></td>
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<tr>
<td>09:40-11:00</td>
<td><strong>Workshop:</strong> Supervised scanning technique of wrist and hand. Normal and basic pathological findings.</td>
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<td>12:00-12:20</td>
<td>Coffee break</td>
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OBJECTIVES

• To review the systematic standardized sono-
  graphic scanning method of each anatomical
  region, according to the EULAR guidelines

• To learn colour and power Doppler physics, ap-
  plication, indications and limitations

• To learn definition, ultrasound presentation and
  quantification of synovitis, synovial hypertrophy,
  effusion, erosion, tendinopathy, tenosynovitis,
  entesitis 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, tendinopahties, tenosynovitis, entesitis
  and degenerative lesions

• Role of ultrasound in diagnosis and monitoring
  of metabolic arthritis

• Role of ultrasound in assessment of skin

• Role of ultrasound in monitoring patients with
  inflammatory joint diseases

• Standards of safety of ultrasound-guided
  punctures and injections sonographic system
WORKSHOP:

- 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, entesitis and degenerative lesions.
- Supervised basic sonographic-guided musculoskeletal injections

**Thursday, September 28th 2017.**

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<thead>
<tr>
<th>TIME</th>
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<tbody>
<tr>
<td>12:00-14:00</td>
<td>Registration</td>
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<tr>
<td>12:00-13:30</td>
<td>Lunch</td>
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<tr>
<td>14:00-14:15</td>
<td>Welcome - A. Iagnocco, P. Peric</td>
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<tr>
<td>14:15-14:40</td>
<td>Entering test of knowledge</td>
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Chairpersons: A. Iagnocco, G. Filippou
### Friday, September 29th 2017.

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<th>TIME</th>
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<tbody>
<tr>
<td>9.00-10.20</td>
<td>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.</td>
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<tr>
<td>10.20-10.30</td>
<td>Coffee break</td>
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**Chairpersons:**  
A. Iagnocco, P. Balint

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<th>TIME</th>
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<tr>
<td>10.30-11.00</td>
<td>Basic US lesions: synovitis, bony cortex and cartilage. Definition, detection and quantification. G. Filippou</td>
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<tr>
<td>11.00-11.30</td>
<td>Basic US lesions: tendinopathies, tenosynovitis. A. Iagnocco</td>
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<tr>
<td>11.30-12.00</td>
<td>Basic US lesions: enthesitis, enthesopathy. P. Balint</td>
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<tr>
<td>12.00-13.00</td>
<td>Workshop: Supervised hands-on scanning of patients with inflammatory and degenerative joint and periarticular soft tissues disorders. How to detect and quantify musculoskeletal lesions.</td>
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<td>13.00-14.30</td>
<td>Lunch</td>
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<tr>
<td>14.30-14.50</td>
<td>Basic US lesions: cartilage and bone lesions in osteoarthritis. F. Porta</td>
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<tr>
<td>14.50-15.15</td>
<td>Standardized scanning of the inflammatory and degenerative shoulder. P. Peric</td>
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<tr>
<td>15.15-15.40</td>
<td>Standardized scanning of the inflammatory and degenerative elbow. N. Laktašić-Žerjavić</td>
</tr>
<tr>
<td>15.40-16.00</td>
<td>Standardized scanning of the inflammatory and degenerative hip. M. Micu</td>
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<tr>
<td>16.00-16.30</td>
<td>Ultrasound in systemic sclerosis. M. Matucci-Cerinic</td>
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<tr>
<td>16.30-16.50</td>
<td>Coffee break</td>
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<tr>
<td>16.50-18.30</td>
<td>Workshop: Supervised hands-on scanning of patients with inflammatory and degenerative shoulder, elbow, hip.</td>
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<tr>
<td>9.00-9.25</td>
<td>Standardized scanning of the inflammatory and degenerative hand and wrist. L. Oczakar</td>
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<tr>
<td>9.25-9.50</td>
<td>Standardized scanning of the inflammatory and degenerative ankle and foot. G. Radunovic</td>
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<tr>
<td>9.50-10.15</td>
<td>Role of US in the diagnosis of crystal arthropathy. N. Laktašić-Žerjavić</td>
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<tr>
<td>10.15-10.40</td>
<td>Standardized scanning of the inflammatory and degenerative knee. V. Vlad</td>
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<td>Workshop: Supervised hands-on scanning of patients with inflammatory and degenerative knee, ankle and foot.</td>
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<tr>
<td>12.30-13.15</td>
<td>Basic skills in sonographic-guided arthrocentesis. N. Damjanov</td>
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<tr>
<td>13.15-14.30</td>
<td>Workshop: Basic skills in sonographic-guided arthrocentesis. N. Damjanov</td>
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<tr>
<td>14.30-15:00</td>
<td>Exit test of knowledge and closing remarks.</td>
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<tr>
<td>15:00-16.00</td>
<td>Lunch and certificate issuing</td>
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</table>
Registration fees:
This 3-day course fee will be **1000 EUR** per participant (lodging and food is included in the course price).
It is recommended to make reservation of accommodation directly to Atlantis Travel agency:
Email: zagreb@atlantis-travel.hr
Phone: +385 1 48 111 55
Fax: +385 1 48 189 14
Registration deadline: **June 30th 2017**.

Registration fee includes:

- Admission to all conference sessions
- Conference KIT
- Conference session materials
- Certificate of attendance and CME certificate
- Coffee breaks and lunches, as specified in the programm

Registration instructions:
To register for the Course you must fill in the form and send it, together with the payment of the registration fee to the Organizational Secretariat.

No registrations will be made without payment of the registration fee.

The Organizational Secretariat will inform the participant that he or she has been registered for the Course.
Methods of payment:
The registration fee may be paid by bank transfer. Kuna and foreign currency account of Atlantis Travel.

The copy of bank transfer must be sent together with the registration form to the Organizational Secretariat. No registration will be made without payment.

Cancellations:
The Secretariat must be informed in writing of any cancellations. Eighty percent of the sum paid will be refunded for cancellations made before June 30th 2017. No money will be refunded for cancellations made after that date.

BANK DETAILS:
Raiffeisen bank Austria dd
Address: Petrinjska 59, Zagreb
In favour of: Atlantis Travel d.o.o.
IBAN: HR 4324840081500155209
SWIFT CODE: RZBHHR2X
Reference number: 225-2016

BANK DETAILS:
(for payment in Kunas)
Atlantis Travel d.o.o.
Petrinjska 59, Zagreb,
Account: HR5524840081100439430
Reference number: 225-2016
Please ask proforma invoice!

Amount should be net of bank commission!
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For more information, please visit the web sites: