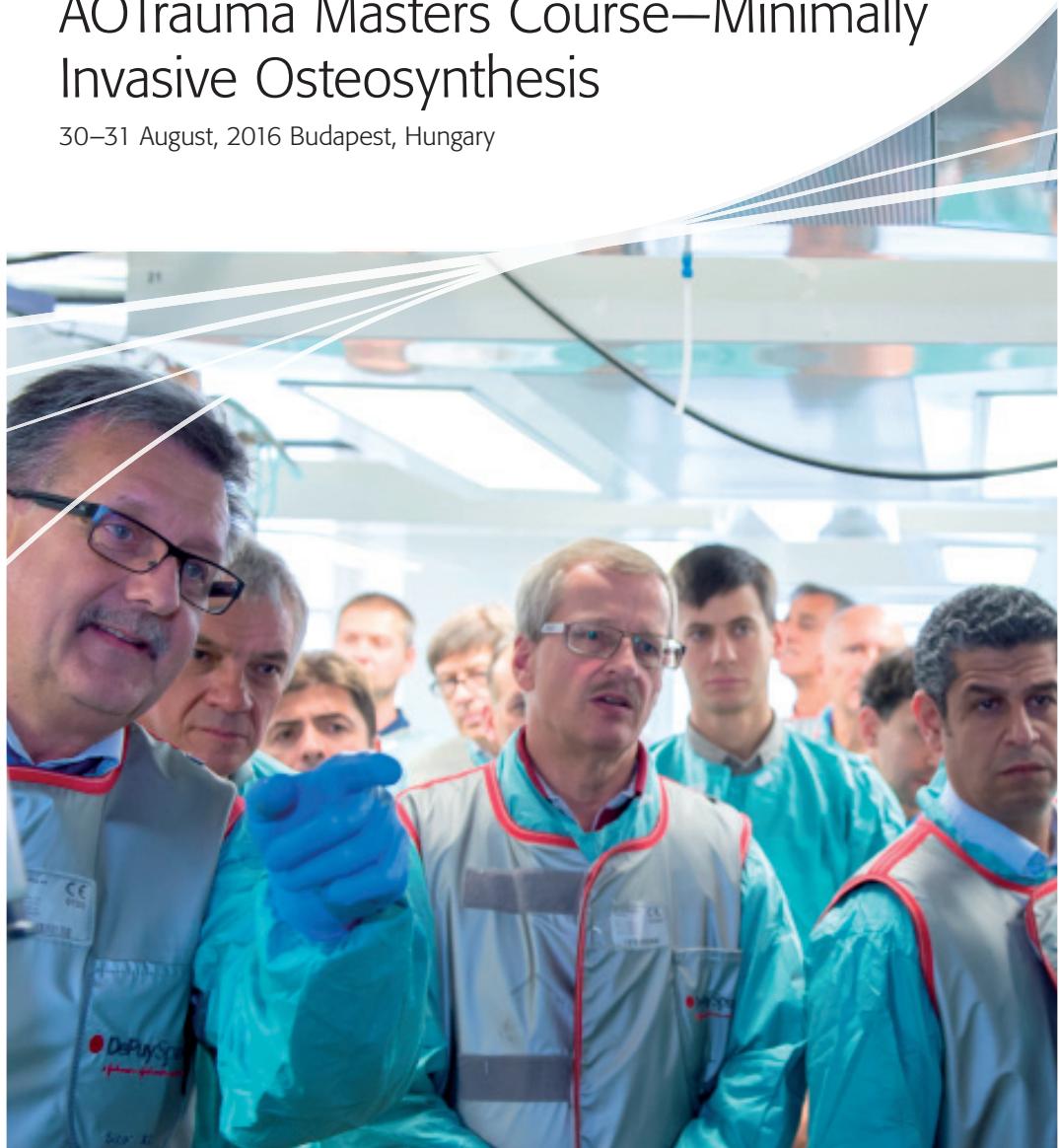


Program

# AOTrauma Masters Course—Minimally Invasive Osteosynthesis

30–31 August, 2016 Budapest, Hungary

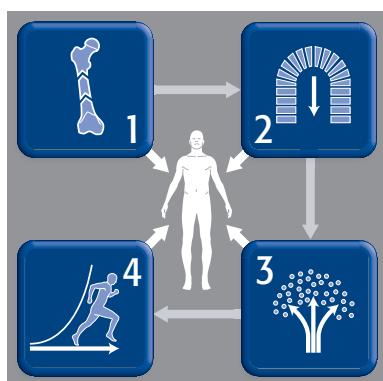


## Value statement

AOTrauma is committed to improve patient care outcomes through the highest quality education. We strive to combine the right knowledge and surgical skills that empower the orthopedic and trauma surgeons to put theory into practice and to improve fracture management for the benefit of the patient.

## The AO principles of fracture management

Fracture reduction and fixation to restore anatomical relationships.



Early and safe mobilization and rehabilitation of the injured part and the patient as a whole.

Fracture fixation providing absolute or relative stability, as required by the "personality" of the fracture, the patient, and the injury.

Preservation of the blood supply to soft tissues and bone by gentle reduction techniques and careful handling.

## Dear AOTrauma course participant,

We are honored to welcome you to the AOTrauma Masters Course—Minimally Invasive Osteosynthesis. We hope you will enjoy your course and the entire experience.

**What is AOTrauma?** We are a "clinical division"—a community for trauma and orthopedics within the AO Foundation. As a clinical division we aim to integrate and align applied and clinical research, education, and community development functions into one direction—AOTrauma for the benefit of our members, stakeholders, and patients.

**How can AOTrauma benefit you?** By working as a single team we focus and leverage our resources, expertise, and skills to create and deliver new and greater value to our members.

**What does this mean in education?** AOTrauma is committed to providing you the best possible educational experience by continuously embracing and introducing new educational techniques to help you learn and more effectively implement your knowledge for the benefit of your patients.

**Why join AOTrauma?** Joining AOTrauma means you are part of the trauma and orthopedic community within the AO. AOTrauma will help you develop lifelong friendships and relationships. We will help you access our "knowledge network" and take part in new opportunities that advance trauma care.

Yours sincerely,



**Kodi Kojima**  
Chairperson AOTrauma  
Education Commission



**John (Jack) Wilber**  
Chairperson AOTrauma  
International Board

**PS:** Your experiences with us, over the next few days, will result in the realization of new and meaningful knowledge, skills, and understanding that we hope will translate into improved patient care.

## Content

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## Goal of the course

The AOTrauma Course—Minimally Invasive Osteosynthesis (MIO) teaches current concepts and procedures for experienced learners in orthopaedic trauma. Featuring the latest techniques in operative fracture management, the course will address basic principles of MIO, imaging and biomechanics, difficult orthopaedic trauma problems, including the upper extremity, lower extremity, complications, and complex fractures. Through open discussion groups, participants will examine and discuss carefully selected case studies.

## Target participants

Participants must have already completed the AOTrauma Courses—Basic Principles of Fracture Management, and Advances Principles of Fracture Management. They also must have several years of personal experience in orthopaedic trauma surgery, be actively involved in trauma management, and have a special interest in minimally invasive fracture fixation.

## Course objectives

At the end of this course, participants will be able to:

- Explain the pros and cons of minimally invasive fracture fixation techniques
- Apply direct and indirect reduction techniques through soft-tissue windows
- Respect the danger zones when applying these techniques
- Apply the Minimally Invasive Osteosynthesis (MIO) in for lower and upper limbs
- Apply the MIO for periprosthetic fractures, pelvic and acetabular injuries
- Recognize some difficulties following MIO

## Course description

This course is aimed at the extremely skilled surgeon who wants to share experiences with other surgeons and specialists in the field of minimally invasive fracture fixation. It will focus on the principles of indirect and direct reduction techniques and its application using conventional and specialized reduction tools through minimally invasive soft-tissue access. In discussion groups special emphasis will be laid on case-based decision making and how to apply this technique using the so-called open source format (OSF), which documents each step of an operation. Images and videos of anatomical specimen dissections will highlight and focus on the danger zones when using minimally invasive approaches for fracture fixation and performing percutaneous plate osteosynthesis.

## Welcome words



It is a great pleasure to welcome you in the Hungarian capital city, Budapest. I am going to invite you to an exciting journey around the minimally invasive fracture care. Budapest is one of the nicest cities of the world, which also had the privilege to host the AO Trustee's meeting in 2014.

The AO Trauma Hungarian chapter was established as a regional entity of the AO Foundation to continue the long tradition of teaching excellence. As an independent surgeon driven nonprofit society our mission is to improve the care of patients with musculoskeletal and visceral injuries. The AO Trauma Hungarian Chapter offers a wide spectrum of educational activities to meet the life-long learning needs of surgeons. Whether you are a resident, fellow or attending surgeon, The AO Trauma Hungarian chapter offers up to date teaching techniques, state of the art courses and seminars tailored for today's learner.

This year the Hungarian Trauma Society is celebrating its 50 years of founding. The AO Trauma Masters Course—Minimally Invasive Osteosynthesis will be organized as one of the most outstanding satellite program of the 50 years celebration program's of the Hungarian Trauma Society. The amazing building of the Hungarian Academy of Sciences - was inaugurated in 1865 in Renaissance Revival architecture style- located on the bank of Danube, will be the course venue.

Besides the known local Hungarian faculties it's a great opportunity to welcome some of the world most experienced trauma surgeons, such as Tim Pohleemann, Suthorn Bavonratanavech, Reto Babst, Rodrigo Pesantes. The last three of them are all contributors of one of the most popular AO Trauma book ever, entitled: **Minimally Invasive Plate Osteosynthesis** by Thieme, released 2012, in an expanded edition.

I really hope that all participants and faculties will enjoy the scientific content the discussion groups, teaching videos and will make new friendships and new relations.

### **Prof. Endre Varga, MD.**

Head of Trauma Department

Head of Central Operation Rooms and Sterilization Unit

Professor of Trauma Surgery

general-, trauma- hand- & orthopedic-surgeon

Past President of Hungarian Trauma Society

AO Trustee

Chair of ATLS Hungary

National Delegate for ESTES

## Chairpersons



**Prof. Endre Varga, MD.**

Szeged, Hungary  
endrevargamd@yahoo.com



**Prof. Suthorn Bavoratanaavech MD.**

Bangkok, Thailand  
suthorn@gmail.com

## Faculty

|                 |         |             |
|-----------------|---------|-------------|
| Babst           | Reto    | Switzerland |
| Bavoratanaavech | Suthorn | Thailand    |
| Nacsai          | István  | Hungary     |
| Kassai          | Tamás   | Hungary     |
| Pesantez-Hoyos  | Rodrigo | Colombia    |
| Pohlemann       | Tim     | Germany     |
| Tóth            | Ferenc  | Hungary     |
| Varga           | Endre   | Hungary     |
| Wiegand         | Norbert | Hungary     |

# Tuesday, 30 August, 2016

| TIME  | AGENDA ITEM   | WHO                        |
|---|---|----------------------------|
| <b>LOCATION: Kodály Room</b>  |   |                            |
| 08:00–08:30   | Registration  |                            |
| 08:30–08:40   | Welcome / Introduction to MIO Seminar                               | S Bavonratanavech, E Varga |
| <b>Module 1 Basic Principles of MIO</b>                             |   |                            |
| 08:40–09:00   | History and evolution of MIO  | S Bavonratanavech          |
| 09:00–09:20   | Decision Making and Preoperative Planning for MIO                   | R Pesantez-Hoyos           |
| 09:20–09:40   | Implants & Instruments for MIO                                      | R Babst                    |
| 09:40–10:00   | Reduction techniques in MIO   | S Bavonratanavech          |
| 10:00–10:20   | Applied anatomy for MIO   | R Babst                    |
| 10:20–10:40   | Cases - Question & Answer   | S Bavonratanavech          |
| 10:40–11:00   | COFFEE BREAK  |                            |
| <b>Module 2 Application of MIO: Overview- imaging- biomechanics</b> |   |                            |
| 11:00–11:20   | Clinical application of MIO: Overview                               | R Pesantez-Hoyos           |
| 11:20–11:40   | Biomechanics of bridge plating, LCP case based                      | S Bavonratanavech          |
| 11:40–12:00   | Imaging for MIO   | E Varga                    |
| 12:00–12:20   | Radiation hazards   | I Nacsai                   |
| 12:20–12:40   | CAOS and MIO  | E Varga                    |
| 12:40–13:00   | Cases - Question & Answer   | E Varga                    |
| 13:00–14:00   | LUNCH BREAK   |                            |
| <b>Module 3 Application of MIO: Lower Limb</b>                      |   |                            |
| 14:00–14:20   | Surgical approaches of MIPO - femur (proximal/shaft/distal) - video | R Babst                    |
| 14:20–14:40   | MIPO Proximal femur - Case based discussion (video)                 | R Pesantez-Hoyos           |
| 14:40–15:00   | MIPO Femoral shaft - Case based discussion (video)                  | T Pohlemann                |
| 15:00–15:30   | MIPO Distal femur - Case based discussion (video)                   | S Bavonratanavech          |
| 15:30–15:50   | COFFEE BREAK  |                            |
| <b>Module 4 Application of MIO for Lower Limb (Continued)</b>       |   |                            |
| 15:50–16:10   | Surgical approaches of MIPO - tibia (proximal/shaft/distal) - video | E Varga                    |
| 16:10–16:30   | MIPO Proximal tibia - Case based discussion (video)                 | R Pesantez-Hoyos           |
| 16:30–17:00   | MIPO Tibial shaft - Case based discussion (video)                   | R Babst                    |
| 17:00–17:20   | MIPO Distal tibia - Case based discussion (video)                   | R Pesantez-Hoyos           |

| TIME        | AGENDA ITEM               | WHO                        |
|-------------|---------------------------|----------------------------|
| 17:20–17:40 | MIO calcaneus (video)     | N Wiegand                  |
| 17:40–18:00 | Cases - Question & Answer | R Babst                    |
| 18:00–18:10 | Summary and End of day 1  | S Bavonratanavech, E Varga |
| 20:00–22:00 | DINNER                    |                            |

## Wednesday, 31 August, 2016

| TIME  | AGENDA ITEM  | WHO                            |
|---|--|--------------------------------|
| <b>Module 5 Application of MIO for Upper Limb</b> |  | Moderator:<br>R Pesantez-Hoyos |
| 09:00–09:20                                       | Clavicle   | S Bavonratanavech              |
| 09:20–09:40                                       | Anatomical considerations of MIPO Humerus                              | F Tóth                         |
| 09:40–10:10                                       | MIPO Proximal humerus- Case based discussion (video)                   | R Pesantez-Hoyos               |
| 10:10–10:30                                       | COFFEE BREAK   |                                |
| 10:30–11:00                                       | Humerus shaft - MIPO anterior approach - Case based discussion (video) | S Bavonratanavech              |
| 11:00–11:20                                       | Humerus shaft - MIPO posterior approach-is it possible? (video)        | R Pesantez-Hoyos               |
| 11:20–11:40                                       | MIPO of the forearm (video)  | R Pesantez-Hoyos               |
| 11:40–12:00                                       | Cases - Question & Answer  | R Pesantez-Hoyos               |
| 12:00–14:00                                       | LUNCH BREAK  |                                |
| <b>Module 6 Other Applications of MIO</b>         |  | Moderator:<br>T Pohlemann      |
| 14:00–14:20                                       | MIPO of peri-prosthetic fractures                                      | T Pohlemann                    |
| 14:20–14:40                                       | Minimal invasive Fixation of pelvic ring injuries (video)              | E Varga                        |
| 14:40–15:00                                       | Minimal invasive Reduction of acetabular fracture                      | T Pohlemann                    |
| 15:00–15:20                                       | MIO in pediatric fractures (video)                                     | T Kassai                       |
| 15:20–15:40                                       | Cases - Question & Answer  | T Pohlemann                    |
| 15:40–16:00                                       | COFFEE BREAK   |                                |
| <b>Module 7 Special issues of MIO</b>             |  | Moderator:<br>R Babst          |
| 16:00–16:20                                       | Difficult implant removal after MIO - difficulties and solutions       | T Pohlemann                    |
| 16:20–16:40                                       | Delayed fracture healing after MIO - how to prevent failure?           | R Babst                        |
| 16:40–17:00                                       | Complications of MIO and Salvage                                       | N Wiegand                      |
| 17:00–17:30                                       | Cases - Question & Answer  | R Babst                        |
| 17:30–17:40                                       | Conclusion & End of the Course   | S Bavonratanavech,<br>E Varga  |

## Course organization

### **AOTrauma Europe**

Calavdelerstrasse 8  
7270 Davos, Switzerland  
Phone +41 81 414 27 20  
Fax +41 81 414 22 84  
Email courses@atrauma.org

## Course venue

### **Magyar Tudományos Akadémia Hungarian Academy of Sciences**

Széchenyi István tér 9.  
1051 Budapest, Hungary  
Phone +36 1 411 6100  
<http://mta.hu/english>



# Course information

## Course fee

AOTrauma Masters Course—Minimally Invasive Osteosynthesis registration fee:

Local attendees: 55.000 HUF

Included in the course fee are conference bag with documentation, coffee breaks and course certificate. Lunches and course dinner can be ordered separately.

International attendees: 400 EUR

Included in the course fee are conference bag with documentation, coffee breaks, course certificate, lunches and course dinner.

## Evaluation guidelines

All AOTrauma courses apply the same evaluation process, either audience response system (ARS) or paper and pencil questionnaires. This will help AOTrauma to ensure that we continue to meet your training needs. In some regions, CME accreditation is dependent on the participant's evaluation results.

## Intellectual property

Course materials, presentations, and case studies are the intellectual property of the course faculty. All rights are reserved. Check hazards and legal restrictions on [www.aofoundation.org/legal](http://www.aofoundation.org/legal).

Recording, photographing, or copying of lectures, practical exercises, case discussions, or any course materials is absolutely forbidden.



The AO Foundation reserves the right to film, photograph, and audio record during their events. Participants must understand that in this context they may appear in these recorded materials. The AO Foundation assumes participants agree that these recorded materials may be used for AO marketing and other purposes, and made available to the public.

## Security

There will be a security check at the entrance of the building. Wearing of a name tag is compulsory during lectures, workshops, and group discussions.

## No insurance

The course organization does not take out insurance to cover any individual against accidents, theft, or other risks.

## Mobile phone use

Mobile phone use is not allowed in the lecture halls and in other rooms during educational activities. Please be considerate of others by turning off your mobile phone.

# Driving excellence and empowering the next generation

## AOTrauma membership

Discover the advantages of joining the leading global trauma and orthopedic community, providing its members with education, research and networking opportunities worldwide.

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## Join us and share your passion

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