

Preliminary program: Global Spine Congress 2018 Pre-course
Minimally Invasive Spinal Surgery—Lectures, case
discussions and hands-on surgeon's cockpit course

May 2, 2018

Singapore



AOSpine—the leading global academic community for innovative education and research in spine care, inspiring lifelong learning and improving patients' lives.

Welcome to Singapore

Dear colleagues,

It is my pleasure to welcome you to the “Minimally Invasive Spinal Surgery Hands-on Surgeon’s Cockpit Pre-course” of the Global Spine Congress 2018—comprising lectures, cases, discussions and practical exercises.

Advances in minimally invasive spinal surgery are revolutionizing spine care, especially with regards to patient selection, new technologies, surgical techniques, and surgical training & simulation. Many of the techniques and technologies in MIS aren’t commonly used in other disciplines within spine surgery.

At this pre-course, you will get the opportunity to be familiarized with technologies that you may not have been exposed to during your surgical training, such as 3D navigation, robotic surgery, the microscope and endoscope, drilling techniques as well as newly sophisticated implants. Also, you will get a step by step introduction to techniques such as microsurgical decompression, successful indirect decompression, and effective implant placement.

Participants will train techniques and procedures on a life-like simulator with haptics close to a real patient—anatomical structures, muscle tissues, bone, the dura, and the ligamentum flavum, including an intraoperative bleeding system, allowing for detailed feedback and assessment of performance to help you improve and master your surgical skills.

I am delighted to chair this pre-course to the Global Spine Congress 2018 with an outstanding international faculty from all over the world, that will not only coach you in complex skills, but also help you select the optimal treatment and procedure in MIS for a given patient.

Lastly, there will also be ample time for discussions, debates, and case discussions among faculty and participants.

I look forward to seeing you in Singapore.

Yours faithfully



Roger Härtl

Chairperson—AOSpine Pre-course at
Global Spine Congress 2018

Weill Cornell Medicine
Department of Neurological Surgery
New York, United States of America

AOSpine Curriculum

This educational event carries the AOSpine Curriculum logo. This indicates that the program, content, and objectives have been developed based on the Curriculum framework, and that the event meets the implementation criteria defined by the AOSpine Education Commission (AOSEC). For more information, visit www.aospine.org.

Course

This course will review the current global MIS landscape and address the 4 “T”s of spinal MIS.

These contain the following:

- **target** which defines the optimal patient and procedure selection in MIS.
- **technology** which addresses the current and evolving tools and instruments that enable MIS, such as 3D navigation and robotic surgery, microscope and endoscope, new sophisticated implants etc.
- surgical **techniques** and skills will be addressed in a step-by-step approach, such as micro-surgical decompression, successful indirect decompression and effective implant placement.
- **teaching** and **training** will focus on using advanced surgical simulation for hands-on experience that will bring together all topics discussed.

Please be aware that hands-on training on surgical simulation tools will be available on a first-come, first-served basis to a limited number of participants.

The event will comprise of evidence-based lectures, debates, panel and case discussions, as well as practical exercises, and will provide ample time for discussion between faculty and participants.

Target participants

This event is targeted at senior surgeons who want to develop in MIS, and surgeons in training who want to consolidate their knowledge in working with microsurgical tools.

Learning objectives

After the event, participants will be able to:

- understand the current landscape of MIS, the breadth of the field with all options and opportunities
- review the current tools and technologies available for MIS with pros and cons
- experience hands-on training of a variety of surgical techniques and skills that enable microsurgical and indirect decompression
- learn the use of the surgical microscope, surgical power drill and navigation technologies

Chairperson

Roger Härtl

Weill Cornell Medicine, New York, USA

Speakers

Richard Assaker

Centre Hospitalier Regional Universitaire, Lille, France

Muhamed Assous

Razi Spine Clinic, Amman, Jordan

Massimo Balsano

Azienda Ospedaliera Universitaria Integrata Verona, Italy

Jens Chapman

Swedish Neuroscience Institute, Seattle, USA

Christoph Hofstetter

University of Washington, Seattle, USA

Jin-Sung "Luke" Kim

Spine Center, Seoul, South Korea

Andreas Korge

Schon Klinik München-Harlaching, Munich, Germany

Khai Lam

The London Bridge Hospital, London, UK

Bernhard Meyer

Klinikum rechts der Isar der Technischen Universität München, Munich, Germany

Rodrigo Navarro

Weill Cornell Medicine, New York, USA

Avelino Parajon

Hospital Universitario Ramón y Cajal, Madrid, Spain

Kornelis "Kees" Poelstra

The Spine Center at Sacred Heart Hospital on the Emerald Coast, Florida, USA

S. Rajasekaran

Ganga Hospital, Coimbatore, India

Seang-Beng Tan

Singapore General Hospital, Singapore

Masato Tanaka

Okayama University Hospital, Okayama, Japan

Paul Taylor

Mount Medical Center, Perth, Australia

Claudius Thomé

Medical University Innsbruck, Innsbruck, Austria

Luiz Vialle

Catholic University, Curitiba, Brazil

Wai Mun Yue

Gleneagles Hospital, Singapore

May 2, 2018

TIME	AGENDA ITEM	WHO
08:30–09:00	Registration	
09:00–09:05	Welcome	Roger Härtl
09:05–09:15	Introduction to MIS Spine: What are we striving for?	Roger Härtl
Session 1	Global MIS—Updates from around the world Current status, strengths and challenges...	Moderators: Bernhard Meyer Tanaka Masato 
09:15–09:25	MIS in North America	Christoph Hofstetter
09:25–09:35	MIS in Latin America	Rodrigo Navarro
09:35–09:45	MIS in Europe	Richard Assaker
09:45–09:55	MIS in Middle East	Muhammed Assous
09:55–10:05	MIS in Asia Pacific	Seang-Beng Tan
10:05–10:15	Discussion	All
Session 2	The four Ts of MIS: Target, Technology, Technique, Teaching / Training	Moderators: Seang-Beng Tan Massimo Balsano
10:15–10:30	Target —Optimized patient selection	Roger Härtl
10:30–10:45	Technology —Retractors, microscopes, endoscope, navigation, instruments and implants—What are the minimum requirements for MIS?	Avelino Parajon
10:45–11:00	Techniques —Surgical principles (unilateral approach, minimizing iatrogenic instability, indirect decompression)	Andreas Korge
11:00–11:15	Teaching and Training —How can we become the best?	Bernhard Meyer
11:15–11:30	Discussion	All
11:30–11:45	LUNCH BREAK	
Session 3a	Surgeon's cockpit practical exercises	
	Introduction of simulation model and techniques to be trained using the AO teaching material	
11:45–12:00	Lecture on surgical technique with AO teaching material	Roger Härtl
12:00–12:15	Introduction of simulation model and techniques to be trained	Avelino Parajon
	Split group in rooms for exercises	
12:15–15:00	Practical exercises on stenosis, MIS over the top decompression and CSF leak repair	Richard Assaker Christoph Hofstetter
12:15–15:00	Practical exercises on spondylolisthesis and MIS TLIF	Avelino Parajon Muhammed Assous Paul Taylor
	Both exercises will be accomplished on a simulated tool and not on a specimen.	
Session 3b	Lectures: 10 step techniques for the workhorse MIS procedures	Moderators: Claudius Thomé Wai Mun Yue
11:45–11:55	MIS tubular decompression for central stenosis	Andreas Korge
11:55–12:05	Endoscopic intralaminar approach L5/S1	Christoph Hofstetter
12:05–12:15	Endoscopic transforminal approach L4/5	"Ke" Kim 
12:15–12:25	MIS TLIF	Claudius Thomé
12:25–12:35	XLIF	Massimo Balsano
12:35–12:45	OLIF	Masato Tanaka

12:45–12:55	Total 3D Navigation	Roger Härtl
12:55–13:05	Robotics	"Kees" Poelstra
13:05–13:15	Multilevel MIS fusion: How to put it all together (percutaneous screws, XLIF, TLIF and iliac screws in the same patient)?	Khai Lam
Session 4	Lectures: MIS deformity—opportunity or limitation? The Battle	Moderator: Khai Lam
13:15–13:25	Debate—Contra: MIS has no role in deformity surgery	S. Rajasekaran
13:25–13:35	Debate—Pro: MIS offers exciting opportunities to make deformity surgery safer	Richard Assaker
13:35–13:50	Discussion	
13:50–14:30	COFFEE BREAK	
14:30–14:40	MIS deformity—Opportunity or limitation; what the research shows	Roger Härtl
14:40–15:00	Case discussion on deformity: How I do it!	Masato Tanaka
Session 5a	Surgeon's cockpit practical exercises	
	Introduction of simulation model and techniques to be trained using the AO teaching material	
15:00–15:15	Lecture on surgical technique with AO teaching material	Roger Härtl
15:15–15:30	Introduction of simulation model and techniques to be trained	Richard Assaker
	Split group in rooms for exercises	
15:30–18:15	Practical exercises on stenosis, MIS over the top decompression and CSF leak repair	Richard Assaker Christoph Hofstetter
15:30–18:15	Practical exercises on spondylolisthesis and MIS TLIF	Avelino Parajon Muhammed Assous Paul Taylor
	Both exercises will be accomplished on a simulated tool and not on a specimen.	
Session 5b	Lectures: MIS treatment for lumbar spondylolisthesis	Moderator: Massimo Balsano
15:00–15:10	Case presentation: L4/5 spondylolisthesis	Massimo Balsano
	Debate:	
15:10–15:20	MIS TLIF is the best	Paul Taylor
15:20–15:30	ALIF is the best	Andreas Korge
15:30–15:40	XLIF is the best	Seang-Beng Tan
15:40–15:50	Decompression alone—No fusion!	Richard Assaker
15:50–16:15	Discussion	
Session 6	Navigation	Moderator: Luiz Viala
16:15–16:35	Debate: Navigation and robotics—Pro and con	S. Rajasekaran (pro) vs Jens Chapman (con)
16:35–17:00	Discussion	
Session 7	Lectures: Case presentations and discussion	Moderator: Andreas Korge
17:00–17:45	Degenerative scoliosis and spondylolisthesis cases	Wai Mun Yue Masato Tanaka Kees Poelstra Christoph Hofstetter
17:45–18:00	Closure	Roger Härtl

AO Foundation—Principles of AO Educational Events

1) Academic independence

Development of all curricula, design of scientific event programs, and selection of faculty are the sole responsibilities of volunteer surgeons from the AO network. All education is planned based on needs assessment data, designed and evaluated using concepts and evidence from the most current medical education research, and involving the expertise of the AO Education Institute (www.aofoundation.org). Industry participation is not allowed during the entire curriculum development and planning process to ensure academic independence and to keep content free from bias.

2) Compliance to accreditation and industry codes

All planning, organization, and execution of educational activities follow existing codes for accreditation of high-quality education:

- Accreditation Criteria of the Accreditation Council for Continuing Medical Education, USA (www.accme.org)
- ACCME Standards for Commercial Support: Standards to Ensure Independence in CME Activities (www.accme.org)
- Criteria for Accreditation of Live Educational Events of the European Accreditation Council for Continuing Medical Education (www.uems.eu)

Events that receive direct or indirect unrestricted educational grants or in-kind support from industry also follow the ethical codes of the medical industry, such as:

- Eucomed Guidelines on Interactions with Healthcare Professionals (www.medtecheurope.org)
- AdvaMed Code of Ethics on Interactions with Health Care Professionals (advamed.org)
- Mecomed Guidelines on Interactions with Healthcare Professionals (www.mecomed.org)

3) Branding and advertising

No industry logos or advertising (with the exception of the AO Foundation and AO Clinical Division) are permitted in the area where educational activities take place.

Sponsors providing financial or in-kind support are allowed to have a promotional booth or run activities outside the educational area with approval from the event chairperson.

4) Use of technologies and products in simulations

If case simulations are chosen as an educational method to educate skills, we only use technology approved by the AOTK System (AOTK)—a large independent group of volunteer surgeons developing and peer-reviewing new technology (more information about AOTK, its development and approval process can be found on the AO Foundation website: www.aofoundation.org).

5) Personnel

Industry staff are not allowed to interfere with the educational content or engage in educational activities during the event.

General information

No insurance: The event organization does not take out insurance to cover any individual against accidents, theft, or other risks.

Security: Access permitted with badge only.

Course language: English.

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.

Intellectual property: Course materials, presentations, and case studies are the intellectual property of the faculty. All rights are reserved. Check hazards and legal restrictions on www.aofoundation.org/legal.

Recording, photographing, or copying of 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.

Event organization

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CH—8600 Dübendorf

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www.aospine.org

Registration and venue

Registration fee:

theoretical part	USD 290.–
theoretical and practical part	USD 699.–

Included in registration fee: coffee breaks, lunches, and CME, AOSpine course certificate.

Online registration and payment:

www.gsc2018.org

Event venue:

Room 304—theoretical sessions
Room 303—practical exercise on stenosis
Room 302—practical exercise on spondylolisthesis

Suntec Singapore International Convention and Exhibition Centre, 1 Raffles Boulevard, Suntec City, Singapore 039593

European CME Accreditation:

An application has been made to the UEMS—EACCME® in Brussels for CME accreditation of this event.

Evaluation guidelines: All AOSpine events apply the same evaluation process, either online (pre- and post-event evaluation) or/and on-site by audience response system (ARS) or paper and pencil questionnaires. This helps AOSpine to ensure that we continue to meet your training needs.

Join our global spine care community

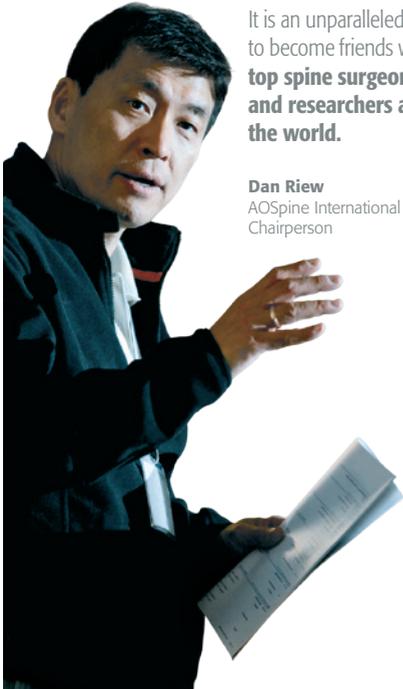
AOSPine membership

Gain access to numerous privileges, including the most advanced educational programs, a worldwide network of professionals, and the highest quality of research carried out by experts and key opinion leaders in spine care.

AOSPine is the largest organization for spine surgeons in the world.

It is an unparalleled opportunity to become friends with and visit **top spine surgeons, educators, and researchers all over the world.**

Dan Riew
AOSPine International
Chairperson



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Never stop learning,
never stop improving



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Research that matters,
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Networking

Join the best professionals
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Sponsors

We thank our major industry partner DePuy Synthes and industrial partner Carl Zeiss Medicon AG for contributing with in-kind support (material and logistics) without which this event would not be possible.



The Global Spine Congress heads to Asia Pacific



Global Spine Congress
Singapore | May 2–5, 2018

www.gsc2018.org