

#### Course program

# AONeuro Course—Neurotrauma



#### Welcome

On behalf of the AO Foundation and your AONeuro regional and international faculty, I would like to welcome you to this Neurotrauma educational event.

AONeuro is a unique worldwide multi-specialty community that includes cranial Neurosurgeons, Neurologists, Neuro intensivists, Neuro anesthesiologists, Neuro traumatologists, and Neurological professionals involved in cranial neurological trauma, cranial oncologic and cerebrovascular surgery, cranial reconstruction, and cranial congenital anomalies surgery.

Education has always been a major focus of the AO Foundation. Each year, more than 46,000 surgeons participate in 750 AO education events worldwide. AONeuro is committed to communicating the latest advances, literature, treatment information and protocols in education, equipment, and new developments as we strive to improve your educational experience by providing you education at the forefront of your specialty.

Your cranial neurological colleagues are working diligently to bring you the latest in cranial neurological education, and have initiated specific programs in the area of traumatic brain injury and skull base surgery and reconstruction. Cranial AO Neurosurgeons also collaborate with their AOSpine colleagues to bring you the latest developments in combined brain and spinal cord trauma. Cranial neurological surgeons also cooperate with craniomaxillofacial colleagues in the areas of facial and cranial trauma, congenital craniofacial anomalies, skull base trauma, skull base surgery and reconstruction.

We hope that your experience with us over the next few days will result in the acquisition of new knowledge, skills, and understanding that can directly be translated into improved care and outcomes for your patient.

So, once again, I welcome you to this AONeuro event, and I wish you all a most successful few days ahead.

Yours sincerely,

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**Paul Manson** 

AO Board of Directors appointed Coordinator for AONeuro

#### Goal of the course

The AO Neurotrauma Course covers the theoretical basis and practical principles for managing neurotrauma, addressing complications, and performing state-of-theart reconstructive surgery.

### Course objectives

After the course, participants should be able to:

- Apply current classification systems and guidelines in neurotrauma
- Manage neurotrauma and skull base fractures in adult, pediatric, and polytrauma patients
- Conduct advanced neuromonitoring
- Plan and perform appropriate operative treatment (e.g. decompressive craniotomy, complex cranial reconstruction)
- Manage CSF leaks and other complications and perform dural repairs

### Target participants

The course has been developed for surgeons who manage neurotrauma and reconstruction and who have a strong interest in these fields. It has a focus on interdisciplinary care and is appropriate for neurosurgeons, CMF, ENT, trauma, and other surgeons.

### Course description

This course covers the current best strategies and considerations for managing neurotrauma patients. It features an international faculty of experts and is based on the competencies defined in AONeuro's new curriculum in neurotrauma. The course content is delivered using multiple methods. Comprehensive lectures concentrate on the understanding of core material. Interactive case presentations further deepen this knowledge and enrich the discussion in trauma management. Practical sessions teach the application of AO principles to the management of common injuries. Case-based discussions link the lecture material and practical skills with the clinical problems encountered in real practice.

### Course director



**Christian Matula** Vienna, Austria

# Faculty

Anton	Jürgen Volker	Salzburg	Austria
Bierschneider	Michael	Murnau	Germany
Chesnut	Randall	Washington	USA
Gruber	Andreas	Vienna	Austria
Hirtler	Lena	Vienna	Austria
Leitgeb	Johannes	Vienna	Austria
Maas	Andrew	Edegem	Belgium

# Thursday, April 3, 2014

TIME	AGENDA ITEM WHO	
07:30-08:00	Registration	
08:00-08:20	Welcome and Objectives for Neurotrauma Course	
08:20-08:40	AO Neuro History, Structure, and Membership	
Modul 1	Epidemiology, Imaging, Paathomechanism, Guidelines	
08:40-09:00	Epidemiology of Traumatic Brain Injury	
09:00-09:20	TBI Pathomechanisms	
09:20-09:40	Imaging in Traumatic Brain Injury	
09:40-10:00	TBI Guidelines	
10:00-10:20	COFFEE BREAK	
Module 2	Neuromonitoring, Polytrauma, Case Discussion	
10:20-10:40	Neuromonitoring – past/present/future	
10:40-11:00	Handling of Polytrauma Patient	
11:00-12:00	Interactive Case Presentation & Discussion	
	My worst case	
12:00-13:00	My worst case  LUNCH BREAK	
12:00–13:00 <b>Module 3</b>	<u> </u>	
	LUNCH BREAK	
Module 3	That's all ICP	
<b>Module 3</b> 13:00–13:20	That's all ICP The history of ICP	
Module 3  13:00-13:20 13:20-14:00	That's all ICP The history of ICP Special Lecture That's all ICP	
Module 3  13:00-13:20 13:20-14:00 14:00-14:20	That's all ICP  The history of ICP  Special Lecture That's all ICP  Debate: The need for ICP Monitoring  Interactive Case Presentation & Discussion ICP Monitoring, placement of bolt	
Module 3  13:00-13:20 13:20-14:00 14:00-14:20 14:20-15:00	That's all ICP  The history of ICP  Special Lecture That's all ICP  Debate: The need for ICP Monitoring  Interactive Case Presentation & Discussion ICP Monitoring, placement of bolt Pitfalls in ICP Management (misinterpretation)	
Module 3  13:00-13:20 13:20-14:00 14:00-14:20 14:20-15:00	That's all ICP  The history of ICP  Special Lecture That's all ICP  Debate: The need for ICP Monitoring  Interactive Case Presentation & Discussion ICP Monitoring, placement of bolt Pitfalls in ICP Management (misinterpretation)  COFFEE BREAK	
Module 3  13:00-13:20 13:20-14:00 14:00-14:20 14:20-15:00  15:00-15:30  Module 4	That's all ICP  The history of ICP  Special Lecture That's all ICP  Debate: The need for ICP Monitoring  Interactive Case Presentation & Discussion ICP Monitoring, placement of bolt Pitfalls in ICP Management (misinterpretation)  COFFEE BREAK  Special Interests	
Module 3  13:00-13:20  13:20-14:00  14:00-14:20  14:20-15:00  Module 4  15:30-16:00	That's all ICP  The history of ICP  Special Lecture That's all ICP  Debate: The need for ICP Monitoring  Interactive Case Presentation & Discussion ICP Monitoring, placement of bolt Pitfalls in ICP Management (misinterpretation)  COFFEE BREAK  Special Interests  Pediatric TBI	
Module 3  13:00-13:20  13:20-14:00  14:00-14:20  14:20-15:00  Module 4  15:30-16:00  16:00-16:30	That's all ICP  The history of ICP Special Lecture That's all ICP Debate: The need for ICP Monitoring Interactive Case Presentation & Discussion ICP Monitoring, placement of bolt Pitfalls in ICP Management (misinterpretation)  COFFEE BREAK  Special Interests  Pediatric TBI Concussions and Sports	

# Friday, April 4, 2014

TIME	AGENDA ITEM	WHO
Module 5	Surgical Management I	
08:00-08:30	Surgical Management of TBI	
08:30-09:00	Frontal sinus fracture management	
09:00-09:30	Skull Base Fractures & traumatic CSF Leaks	
09:30-10:00	Penetrating and Blast Injuries	
10:00-10:30	COFFEE BREAK	
Module 6	Surgical Management II	
10:30-11:00	Traumatic Intracerebral Bleeding	
11:00-11:30	Neurotrauma and Reconstruction	
11:30–12:00	Interactive Case Presentation & Discussion Traumatic ICB Reconstruction after Trauma	
12:00-13:00	LUNCH BREAK	
	Practical Hands – On (Cadaver Lab)	
13:00-13:20	Introduction of the Lab and Anatomical Basics	
13:20-13:30	Bifrontal Decompressive Craniectomy	
13:30-14:30	Bifrontal Decompressive Craniectomy – Hands-On	
14:30-14:40	Classical Decompressive Craniectomy	
14:40-15:40	Classical Decompressive Craniectomy – Hands-On	
15:40-16:00	COFFEE BREAK	
16:00-16:10	Decompressive Craniectomy Posterior Fossa	
16:10-16:20	ICP Bold Placement	
16:20-17:00	ICP Bold Placement – Hands On	
Module 7	Trials and New Horizons	
17:00-17:30	Clinical Trials in traumatic brain injury	
17:30-18:00	New Horizons in TBI	
18:00-18:15	Wrap Up Day 2, Certificates, Closing remarks End of Course	

### Course organization

### AO Foundation AONeuro

Michèle Lagger Clavadelerstrasse 8 7270 Davos, Switzerland Phone +41 81 414 25 59 Fax +41 81 414 22 80 Email info@aoneuro.org www.aoneuro.org

### Course logistics

#### **Industrial partner**

Johnson & Johnson Medical Products GmbH DePuy Synthes A-1020 Wien, Vorgartenstrasse 206B Phone +43 664 925 3869 www.depuysynthes.com

#### Course information

#### **Evaluation guidelines**

All AONeuro courses apply the same evaluation process, either ARS (audience response system) or paper and pencil questionnaires. This will help AONeuro 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. 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. Recording, photographing, or copying of lectures, practical exercises, case discussions, or any course materials is absolutely forbidden.

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#### Security

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, thefts 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.

#### **Dress code**

Casual

#### Course venue

#### Venue

Medical University of Vienna Institute of Anatomy Währinger Strasse 13 1090 Vienna, Austria Phone +43 1 40 160 0 Fax +43 1 40 160 910 000

### Notes



# Worldwide Educational Activities 2014

AP	AONeuro Course—Neurotrauma	Feb 25-26	Chengdu, China
AP	AONeuro Course—Neurotrauma	Feb 28–Mar 01	Beijing, China
AP	AONeuro Course—Skullbase	Mar 03–05	Bangkok, Thailand
EU	AONeuro Course—Neurotrauma	Mar 13–14	Malaga, Spain
EU	AONeuro Course—Neurotrauma	Mar 31–Apr 01	Bergamo, Italy
EU	AONeuro Course—Neurotrauma	Apr 02-04	Vienna, Austria
NA	AONeuro Webinar—Pediatric TBI	May 02	San Francisco, USA
NA	AONeuro Course—Management of Traumatic Brain and Spinal Cord Injuries	May 03–04	San Francisco, USA
AP	AONeuro Course—Skullbase Surgery	May 15–16	Bangkok, Thailand
EU	AONeuro Course—Neurotrauma	May 29–30	Murnau, Germany
LA	AONeuro Seminar—Neurotrauma	May 30–31	Mexico City, Mexico
LA	AONeuro Course—Neurotrauma	Jul 31–Aug 01	Medellin, Columbia
LA	AONeuro Seminar—Neurotrauma	Aug 22	Sao Paulo, Brazil
LA	AONeuro Course—Neurotrauma	Sep 11-12	Buenos Aires, Argentina
EU	AONeuro International interdisciplinary advanced course in Skull Base surgery	Oct 15-17	Vienna, Austria
NA	AONA combined AONeuro/AOSPINE Course Brain and Spinal Cord Trauma	Nov 08-09	Baltimore, USA
EU	AONeuro—Webinar	Dec 09	Davos, Switzerland
EU	AO Foundation Davos Courses 2014: AONeuro Course—Neurotrauma	Dec 10-12	Davos, Switzerland

List subject to change.

If you would like to receive information about news and events please sign up for our newsletter on www.aoneuro.org.

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