

PRE-CONGRESS THEORETICAL AND PRACTICAL COURSES

ENDOSCOPIC TRANS-SPHENOIDAL APPROACHES TO SELLA AND PARASELLAR AREAS

Directors: Paolo Cappabianca (Italy), Chandrashekhar E. Deopujari (India)

THEORETICAL SESSION

HANDS-ON SESSION

Bramante 4

September 6, 2015

Rome Marriott Park Hotel

September 7, 2015

Tecnopolo Castel Romano

4:00 pm Endoscopic endonasal approach to the sella and its variations

Paolo Cappabianca (Italy)

4:30 pm Endoscopic endonasal transsphenoidal approach to the clival area

Chandrashekhar E. Deopujari (India)

5:00 pm Endoscopic endonasal approach to the suprasellar areas

Luigi M. Cavallo (Italy)

5:30 pm Endoscopic endonasal approach to cavernous sinus and Meckel's Cave

Daniel M. Prevedello (USA)

9:00 am Master dissection: Sellar and suprasellar areas

Hands on practice with faculty and tutors

1:00 pm Lunch

2:00 pm Master dissection: Cavernous sinus and clivus

Hands on practice with faculty and tutors

Tutors Filippo F. Angileri, Morgan Broggi, Martina Cappelletti, Matteo De Notaris, Felice Esposito, Agazio Minniti, Roberta Morace, Andrea Ruggeri, Domenico Solari



PRE-CONGRESS THEORETICAL AND PRACTICAL COURSES

PERCUTANEOUS SPINE SURGERY 1

Directors: Natale Francaviglia (Italy), Michael Wang (USA)

THEORETICAL SESSION (GROUPS A AND B)

HANDS-ON SESSION

Bramante 5

September 6, 2015

Rome Marriott Park Hotel

September 7, 2015

Tecnopolo Castel Romano

4:00 pm Introduction and welcome
Natale Francaviglia (Italy), Michael Wang (USA)

Emergency dorsal and lumbar pedicle screwing
Gualtiero Innocenzi (Italy)

4:30 pm Use of kyphoplasty in traumatic and osteoporotic fractures
Natale Francaviglia (Italy)

5:00 pm Sawbones hands-on

6:00 pm End of session

Group A

8:30 am Wet lab
Table 1:
Thoracic unilateral stabilization

Navigation table:
Thoracic lumbar unilateral stabilization

Table 3:
Fracture treatment with kyphoplasty

Participants rotate on the three table

1:00 pm Lunch

2:30 pm Case discussion

Group B

8:30 am Case discussion

2:30 pm Wet lab
Table 1: Thoracic unilateral stabilization

Navigation table: thoracic lumbar unilateral stabilization

Table 3: Fracture treatment with kyphoplasty

Participants rotate on the three table

6:00 pm End of session

Tutors Nicola Marotta, Alessandro Landi, Alberto Romano, Pierfrancesco Eugeni, Luigi Basile

PRE-CONGRESS THEORETICAL AND PRACTICAL COURSES

PERCUTANEOUS SPINE SURGERY 2

Directors: Natale Francaviglia (Italy), Michael Wang (USA)

THEORETICAL SESSION (GROUPS C AND D)

HANDS-ON SESSION

Bramante 5

September 7, 2015

Rome Marriott Park Hotel

September 8, 2015

Tecnopolo Castel Romano

4:00 pm Introduction and welcome
Natale Francaviglia (Italy), Michael Wang (USA)

Emergency dorsal and lumbar pedicle screwing
Gualtiero Innocenzi (Italy)

4:30 pm Use of kyphoplasty in traumatic and osteoporotic fractures
Natale Francaviglia (Italy)

5:00 pm Sawbones hands-on

6:00 pm End of session

Group C

8:30 am Wet lab
Table 1:
Thoracic unilateral stabilization

Navigation table:
Thoracic lumbar unilateral stabilization

Table 3:
Fracture treatment with kyphoplasty

Participants rotate on the three table

1:00 pm Lunch

2:30 pm Case discussion

Group D

8:30 am Case discussion

2:30 pm Wet lab
Table 1:
Thoracic unilateral stabilization

Navigation table:
Thoracic lumbar unilateral stabilization

Table3:
Fracture treatment with kyphoplasty

Participants rotate on the three table

6:00 pm End of session

Tutors Nicola Marotta, Alessandro Landi, Alberto Romano, Pierfrancesco Eugeni, Luigi Basile



PRE-CONGRESS THEORETICAL AND PRACTICAL COURSES

CEREBELLO-PONTINE ANGLE AND CRANIO-VERTEBRAL JUNCTION SURGICAL APPROACHES

Directors: Renato J. Galzio (Italy), Marcos Tatagiba (Germany)

THEORETICAL SESSION

HANDS-ON SESSION

Bramante 4

September 7, 2015

Rome Marriott Park Hotel

September 8, 2015

Tecnopolo Castel Romano

2:00 pm Surgical and endoscopic anatomy of the CPA

Manfred Tschabitscher (Austria)

2:30 pm Retrosigmoid approach: indications and technique

Marcos Tatagiba (Germany)

3:00 pm Retrosigmoid approach: clinical videos

*Marcos Tatagiba (Germany),
Florian Ebner (Germany)*

3:30 pm Surgical and endoscopic anatomy of the CVJ

Manfred Tschabitscher (Austria)

4:00 pm Approaches to the CVJ: indications and technique

Renato J. Galzio (Italy)

4:30 pm Approaches to the CVJ (far-lateral and extreme-lateral): clinical videos

5:00 pm Approaches to the CVJ (trans-oral, retro-pharyngeal and sub-occipital): technical preparation & clinical videos

*Marcos Tatagiba (Germany),
Renato J. Galzio (Italy),
Florian Ebner (Germany),
Alessandro Ricci (Italy),
Emiliano Passacantilli (Italy)*

5:30 pm Discussion

6:00 pm End of session

8:00 am Preparation of the retrosigmoid approach: video demonstration

*Florian Ebner (Germany),
Marcos Tatagiba (Germany)*

8:15 am Retrosigmoid approach: step by step hands-on

10:15 am Endoscopic workshop: CPA

Manfred Tschabitscher (Austria)

10:45 am Preparation of the far-lateral approach: video demonstration

*Alessandro Ricci (Italy),
Emiliano Passacantilli (Italy)*

11:00 am Far-lateral approach: step by step hands-on

1:00 pm Lunch

2:00 pm Preparation of the extreme-lateral approach: video demonstration

*Renato J. Galzio (Italy),
Alessandro Ricci (Italy)*

2:15 pm Extreme-lateral approach: step by step hands-on

4:15 pm Endoscopic workshop: peri-medullary cisterns

4:45 pm Closing remarks

5:00 pm End of session

Tutors Danilo De Paulis, Lorenzo Pescatori, Soheila Raysi Dehcordi, Sara Marzi, Mattia Del Maestro, Massimo Gallieni, Sabino Luzzi, Valerio di Norcia, Teresa Fasano

PRE-CONGRESS THEORETICAL AND PRACTICAL COURSES

MICROSURGICAL TEACHING COURSE ON VASCULAR ANASTOMOSIS

Directors: *Basant K. Misra (India); Francesco Acerbi (Italy)*

September 7, 2015

Tecnopolo Castel Romano

- 8:30 am Introduction to the Course**
Basant K. Misra (India), Francesco Acerbi (Italy)
- 8:45 am Technique of microsutures and microanastomoses**
Basant K. Misra (India), Francesco Acerbi (Italy)
- 9:30 am Indication and technical nuances for EC-IC and IC-IC bypass in aneurysm surgery**
Jacques Morcos (USA)
- 10:00 am Indication and technique of EC-IC bypass for cerebral ischemia and moyamoya disease**
Ying Mao (China)
- 10:30 am** Break
- 11:00 am Practice for microsuture and microanastomoses in silicone tubes**
- 1:00 pm** Lunch
- 2:00 pm Preparation of femoral artery and vein and end-to-end microanastomoses on femoral artery**
- 4:00 pm Preparation of carotid artery and vein and end-to-end microanastomoses on carotid artery**
- 6:00 pm** End of session

September 8, 2015

Tecnopolo Castel Romano

- 9:00 am Preparation of carotid artery and vein and end-to-side microanastomoses on carotid artery**
- 11:00 am** Break
- 11:30 am Preparation of carotid artery and vein and end-to-side microanastomoses Jugular vein to carotid artery**
- 1:30 pm** Lunch
- 2:30 pm Preparation of carotid artery and vein and side-to-side microanastomoses on both carotid arteries**
- 4:30 pm** End of session
- Tutors** Carlo Bortolotti, Andrea Cardia, Benedetta Fazzolari, Andrea Lanterna, Angelo Pichierri, Rossana Romani



PRE-CONGRESS THEORETICAL AND PRACTICAL COURSES

3-D ANATOMY OF TRANSCRANIAL MICROSURGICAL AND ENDOSCOPIC ENDONASAL SKULL BASE APPROACHES

Directors: Alessandro Ducati (Italy), Antonio Bernardo (USA)

**Bramante
14**

September 7, 2015
Rome Marriott Park Hotel

9:00 am **Microsurgical anatomy of the anterior skull base**
Antonio Bernardo (USA)

10:00 am **Microsurgical anatomy of the lateral skull base**
Antonio Bernardo (USA)

11:00 am **Microsurgical anatomy of the posterior fossa**
Antonio Bernardo (USA)

12:00 pm Lunch

2:00 pm **Key imaging radiological anatomy of the skull base for endonasal approaches**
Roberto Maroldi (Italy)

3:00 pm **A 3D journey through the paranasal sinuses and adjacent skull base**
Piero Nicolai (Italy)

4:00 pm **Classical and extended approaches to the skull base: how to get there and to close**
Francesco Zenga (Italy)

5:00 pm **End of the course**

PRE-CONGRESS THEORETICAL AND PRACTICAL COURSES

NEUROENDOVASCULAR PROCEDURES USING A SIMULATOR

Directors: Edoardo Boccardi (Italy), Feng Ling (China)

Bramante
12

September 7, 2015
Rome Marriott Park Hotel

8:20 am Introduction

Edoardo Boccardi (Italy), Feng Ling (China)

8:30 am Indications, technique and complications of cerebral angiography

Edoardo Boccardi (Italy), Feng Ling (China)

9:30 am Devices for endovascular treatment: description, indications and technique

Edoardo Boccardi (Italy), Feng Ling (China)

10:30 am Break

11:00 am Brain aneurysms, AVMs, DAFs – endovascular treatment options

Edoardo Boccardi (Italy), Feng Ling (China)

12:30 pm Discussion and introduction to simulator

1:00 pm Lunch

2:00 pm Group A – Simulator – Group B Clinical cases

Edoardo Boccardi (Italy), Feng Ling (China), Simone Peschillo (Italy), Guglielmo Pero (Italy)

4:00 pm Group B – Simulator – Group A Clinical cases

Edoardo Boccardi (Italy), Feng Ling (China), Simone Peschillo (Italy), Guglielmo Pero (Italy)

6:00 pm End of the course



PRE-CONGRESS THEORETICAL AND PRACTICAL COURSES

MORPHO-FUNCTIONAL ANATOMY OF THE HUMAN WHITE MATTER FOR NEUROSURGEONS

Directors: Vladimír Beneš (Czech Republic), Ugur Türe (Turkey)

Bramante
15

September 7, 2015

Rome Marriott Park Hotel

8:30 am Welcome; presentation of the Course

Vladimír Beneš (Czech Republic)

8:45 am General organization of the human white matter. Methods to study human white matter morphology: histology, dissection, in and ex vivo diffusion weighted MRI

Christophe Destrieux (France)

9:15 am Arcuate fasciculus / Superior longitudinal fasciculus / Aslant frontal fasciculus: Morphology and clinical implications

Ilyess Zemmoura (France)

10:00 am Break

10:15 am Middle longitudinal fasciculus: morphology and clinical implications

Igor L. Maldonado (Brazil)

10:40 am Inferior fronto-occipital fasciculus: morphology and clinical implications

Christophe Destrieux (France)

11:05 am Optic radiations: morphology and clinical implications

Louis Marie Terrier (France)

11:30 am Uncinate fasciculus and inferior longitudinal fasciculus: morphology and clinical implications

Ilyess Zemmoura (France)

12:00 pm Lunch

1:30 pm Composition and organisation of the sagittal stratum

Igor L. Maldonado (Brazil)

2:00 pm The impact of fiber dissection technique on intrinsic tumor surgery

Ugur Türe (Turkey)

2:45 pm Interest and limitations of intraoperative MRI diffusion tensor Imaging for low grade gliomas surgery

Vladimír Beneš (Czech Republic)

3:15 pm MR-tractography validation: why and how? The fibratlas project

Christophe Destrieux (France)

3:45 pm Break

4:00 pm White matter quiz: how to find the best route in white matter. Interactive session

Christophe Destrieux (France), Igor L. Maldonado (Brazil), Louis Marie Terrier (France), Ilyess Zemmoura (France)

5:00 pm End of the course

PRE-CONGRESS THEORETICAL AND PRACTICAL COURSES

VIRTUAL NEUROSURGERY

Directors: Paolo Ferroli (Italy), Joshua B. Bederson (USA)

Bramante
10-11

September 7, 2015

Rome Marriott Park Hotel

9:00 am Welcome

9:25 am Course Introduction

Joshua B. Bederson (USA)

9:30 am Hight-tech simulation and the history of neurosurgery

Rolando F. Del Maestro (Canada)

10:00 am Simulation techniques: from high-tech aviation to high-risk medical specialties

Alex Lever (UK)

**10:30 am The Dextroscope and DEX-Ray:
virtual and augmented reality in neurosurgery planning and navigation**

Luis Serra (Spain), Giovanni Tringali (Italy)

11:00 am Break

11:30 am What can we teach (and learn!) through virtual reality neurosurgical simulation?

Joshua B. Bederson (USA)

12:00 pm High field MRI and finite element methods for modeling neuroanatomy in neurosimulation

Anthony B. Costa (USA)

12:30 pm Who are going to be the best neurosurgeons in the future?

Aidan Byrne (USA)

1:00 pm Lunch

Afternoon practical session: Director *Alessandro Perin (Italy)*

2:00 pm Neurosurgical simulation, anatomy and approaches

Antonio Bernardo (USA)

2:30 pm Methods of assessing neurosurgical skills in the operating room and during simulation

Christopher Sarkiss (USA)

3:00 pm The Besta NeuroSim Center: prospective studies and educational programs by means of high-tech neurosurgical simulators

Alessandro Perin (Italy)

**There will be a practical/hands-on session with all the top-notch, high-tech neurosurgical simulators during the afternoon session and throughout the entire meeting, with dedicated sessions for small groups willing to practice on each available simulator.

List of available simulators:

**Neurotouch
Immersive touch
Surgical theater
Virtual protein
SNAP Medtronic
Zeiss Surface recognition module**



PRE-CONGRESS THEORETICAL AND PRACTICAL COURSES

YOUNG NEUROSURGEONS MEET THE EXPERTS: CERVICAL SPONDYLOTIC MYELOPATHY

Directors: *Richard G. Fessler (USA), Roberto Assietti (Italy)*

Bramante
15

September 8, 2015
Rome Marriott Park Hotel

9:00 am Course presentation

Richard G. Fessler (USA), Roberto Assietti (Italy)

9:10 am Anatomy and pathophysiology of cervical spondylotic myelopathy

Roberto Assietti (Italy)

9:20 am The clinical presentation of cervical spondylotic myelopathy

Richard G. Fessler (USA)

10:30 am Is cervical Myelopathy always a surgical pathology?

Richard Assaker (Belgium)

11:10 am Break

11:40 am When is the right timing to decompress a cervical spine in cervical myelopathy?

Sumit Sinha (India)

12:12 pm What is the attitude towards active patients with severe spinal stenosis without myelopathy?

Richard G. Fessler (USA)

1:00 pm Lunch

2:00 pm When do we prefer the anterior approach?

Roberto Assietti (Italy)

2:40 pm When do we prefer the posterior approach?

Richard Assaker (Belgium)

3:20 pm Is there a role for combined approach?

Sumit Sinha (India)

4:00 pm Is there any need for surgical instrumentation?

Richard G. Fessler (USA)

4:40 pm Review of the guidelines

Roberto Assietti (Italy)

5:20 pm Panel discussion (all)

6:00 pm End of the course

PRE-CONGRESS THEORETICAL AND PRACTICAL COURSES

YOUNG NEUROSURGEONS MEET THE EXPERTS: CHIARI MALFORMATION

Directors: *Concezio Di Rocco (Italy), Jörg Klekamp (Germany)*

Bramante
12

September 8, 2015
Rome Marriott Park Hotel

8:30 am Course presentation

Jörg Klekamp (Germany), Concezio Di Rocco (Italy)

9:00 am Chiari type I malformation in the pediatric population: anatomical spectrum and problems in decision making

Concezio Di Rocco (Italy)

9:30 am The clinical presentation of chiari I malformation

John D. Heiss (Germany)

10:00 am Clinical significance of cardiac-gated phase-contrast MRI in patients with CM1

Uve Max Mauer (Germany)

10:30 am Break

11:00 am Historical overview on treatment for chiari I malformation

Ulrich Batzdorf (USA)

11:30 am Foramen magnum decompression without duraplasty vs decompression with duroplasty in children

Martina Messing-Jünger (Germany)

12:00 pm Long-Term results for decompressions with and without duraplasties

Nozar Aghakhani (France)

12:30 pm Management of complications after foramen magnum decompression

Graham Flint (UK)

1:00 pm Pathogenesis and management of chiari I malformation in craniosynostoses

Gianpiero Tamburrini (Italy)

1:30 pm Lunch

2:30 pm Chiari I malformation associated to basilar invagination/anomalies of the cranio-vertebral junction

Atul Goel (India)

3:00 pm Patients with failed decompressions

Jörg Klekamp (Germany)

3:30 pm Panel discussion

5:00 pm End of the course



PRE-CONGRESS THEORETICAL AND PRACTICAL COURSES

YOUNG NEUROSURGEONS MEET THE EXPERTS: GLIOMAS

Directors: Lorenzo Bello (Italy), Ennio Antonio Chiocca (USA)

Bramante
11

September 8, 2015
Rome Marriott Park Hotel

9:00 am Introduction

Lorenzo Bello (Italy)

9:15 am Gliomas: histological and molecular updates: what the neurosurgeon should know to address surgery

Lorenzo Bello (Italy)

9:50 am Low grade gliomas: clinical features, indications, surgical techniques, results of treatment

Hugues Duffau (France)

11:10 am Break

11:30 am The concept of functional neuroncology: brain hodotopy

Hugues Duffau (France)

12:15 pm When and why do we need Intraoperative neurophysiology for glioma surgery: techniques, tricks, pitfalls

Lorenzo Bello (Italy)

1:00 pm Lunch

2:00 pm High grade gliomas: clinical features, indications, surgical and intraoperative imaging techniques, results of treatment

Alexandra Golby (USA)

2:40 pm Recurrent gliomas: indications and results of treatment

Alexandra Golby (USA)

3:00 pm Meet the experts personally: presentation of cases and open discussion

Lorenzo Bello (Italy), Hugues Duffau (France), Alexandra Golby (USA)

5:00 pm End of session

PRE-CONGRESS THEORETICAL AND PRACTICAL COURSES

RADIOSURGERY IN NEUROSURGERY: THEORETICAL BASIS AND HANDS-ON SKILLS

Directors: *Laura Fariselli (Italy), Jean Regis (France)*

Bramante
14

September 8, 2015
Rome Marriott Park Hotel

8:45 am **Technical and dosimetric aspects: dose delivery and quality control**
Carlo Cavedon (Italy)

9:05 am **Advanced imaging in radiosurgery**
Jean Regis (France)

9:25 am **Arteriovenous malformations: evolution of the SRS techniques**
Alfredo Conti (Italy)

9:45 am **Radiosurgery of brain metastases: strategy and patient's selection**
Roberto Spiegelmann (Israel)

10:05 am Break

10:15 am **Hands-on**

12:15 am Lunch

12:45 am **Hearing preservation in vestibular schwannoma**
Marc Levivier (France)

1:00 pm **Multisession radiosurgery in meningiomas: a new favourable option**
Laura Fariselli (Italy)

1:15 pm **Spine radiosurgery**
Marcello Marchetti (Italy)

1:30 pm **Radiosurgical strategies in movement disorders**
Jean Regis (France)

2:00 pm **Hands-on**

4:00 pm **End of the course**