June 17

**Breakfast Seminar 3-1**
7:30~8:30 Room A (Conference Room 1003)

Surgical Strategies of Parasellar Meningiomas: Gaining the Knowledge

**Moderators:** Ali K. Ali (Egypt)
Kensuke Murakawa (Japan)
Ryojo Akagami (Canada)

**BS3-1-1** Supra-orbital kyehole approach for resection of anterior cranial base meningiomas—a 15 year’s experience
Weiguo Zhao
Department of Neurosurgery, Shanghai Jiaotong University School of Medicine, China

**BS3-1-2** Frontolateral in treatment of anterior cranial fossa and suprasellar lesions
Ali K. Ali
Department of Neurosurgery, Ain Shams University, Egypt

**BS3-1-3** Craniotomy for perisellar meningioma, simple (for endoscopic) vs complex anatomy
Ryojo Akagami
Division of Neurosurgery, University of British Columbia, Canada

**BS3-1-4** Five fractions radiosurgery for skull base meningioma involving optic pathways
Marcello Marchetti
Department of Neurosurgery, Radiotherapy Unit, Fondazione IRCCS Istituto Neurologico C. Besta, Italy

**BS3-1-5** Surgical management of medial sphenoid ridge meningioma
Ahmed Farhoud
Department of Neurosurgery, Alexandria University

**Concurrent Session 3-1**
8:50~10:20 Room A (Conference Room 1003)

Safer Approaches for Clinoidal/Parasellar Meningiomas

**Moderators:** Ricardo Ramina (Brazil)
Oleksandr Voznyak (Ukraine)
Francesco Tomasello (Italy)

**CS3-1-1** Involvement of optic apparatus and vessels by supra-sellar meningiomas
Ricardo Ramina
Neurological Institute of Curitiba, Brazil

**CS3-1-2** Surgical approach for tuberculum sellae meningioma
Shin Jung
Department of Neurosurgery, Chonnam National University Hwasun Hospital, Korea

**CS3-1-3** Tuberculum sella meningiomas: Approach choice according to tumor syntopy
Oleksandr Voznyak
Centre of Neurosurgery, Hospital “Feofaniya”, Ukraine

**CS3-1-4** Craniotomy for tuberculum sellae meningiomas: Is it safer than endoscopy?
Gerardo Guinto
Centro Medico Nacional Siglo XXI. / Centro Medico ABC, Mexico

**CS3-1-5** Tuberculum sella meningiomas
Rajneesh Kachhara
Institute of Neurosciences, Medanta Superspecialty hospital, India

**CS3-1-6** Transbasal approach vs. endoscopic endonasal approach for olfactry groove meningiomas: Single surgeon’s experience and philosophy of approach selection
James K. Liu
Department of Otolaryngology-Head and Neck Surgery, New Jersey Medical School, USA
Masters of Meningioma Surgery

**Moderators:** Necmetin Pamir *(Turkey)*
Takeshi Kawase *(Japan)*

**PS3-1-1** Meningiomas of craniocervical junction  
Luis A. B. Borba  
*Department of Neurosurgery, Federal University of Parana, Brazil*

**PS3-1-2** Struggles in the anatomical jewel box: Cavernous sinus meningiomas  
Anil Nanda  
*Department of Neurosurgery, LSU Health Shreveport, USA*

**PS3-1-3** Posterior Fossa Meningiomas  
Vladimír Beneš  
*Department of Neurosurgery Charles Univ, Czech Republic*

**PS3-1-4** Decompressive surgery for cavernous meningioma  
William Couldwell  
*Department of Neurosurgery, University of Utah, USA*

Concurrent Session 3-7

**13:30~15:00** Room A (Conference Room 1003)

Meningioma Surgery in Relation to Vessels: Overcoming the Difficulties

**Moderators:** Basant K. Misra *(India)*  
Shunsuke Terasaka *(Japan)*  
Samy Youssef *(USA)*

**CS3-7-1** Keynote  
Surgical treatment of parasagittal and falcian meningiomas  
Necmetin Pamir  
*Department of Neurosurgery, Acibadem University School of Medicine, Turkey*

**CS3-7-2**  
Surgical strategy for meningioma invading venous system. How to reconstruct the venous sinus?  
Katsumi Takizawa  
*Department of Neurosurgery, Asahikawa Red Cross Hospital, Japan*

**CS3-7-3**  
Meningiomas invading the venous sinuses: Resection preserving the sinuses  
Benedicto O. Colli  
*Division of Surgery, Department of Surgery, Hospital das Clínicas, Ribeirao Preto Medical School, University of Sao Paulo, Brazil*

**CS3-7-4**  
Removal of cavernous meningioma with high flow bypass  
Masahiko Wanibuchi  
*Department of Neurosurgery, Sapporo Medical University School of Medicine, Japan*

**CS3-7-5**  
Cerebral revascularization for skull base tumors  
Shunsuke Terasaka  
*Department of Neurosurgery, Hokkaido University, Japan*

**CS3-7-6**  
Surgery of the pineal region  
Samy Youssef  
*Departments of Neurosurgery and Otolaryngology / University of Colorado, USA*
**CS3-7-7  Extensive parasellar meningiomas: Operative strategies**  
Sanjay Behari  
Department of Neurosurgery, Sanjay Gandhi Postgraduate Institute of Medical Sciences, India

**Concurrent Session 3-13**
15:10~16:40  
Room A (Conference Room 1003)

**Controversies Related to the Management of Petroclival Meningioma**

Moderators: Kazunari Yoshida (Japan)  
Ibrahim Sbeih (Jordan)  
William Couldwell (USA)

**CS3-13-1  Petroclival meningioma - Multidisciplinary approach**  
Eiji Kohmura  
Department of Neurosurgery, Kobe University Graduate School of Medicine, Japan

**CS3-13-2  Anterior petrosal approach and its modification for petroclival tumors**  
Kazunari Yoshida  
Department of Neurosurgery, Keio University School of Medicine, Japan

**CS3-13-3  Evolution of management strategy in petroclival meningiomas over 20 years**  
Jun-Ting Zhang  
Beijing Tiantan Hospital, Capital Medical University, China

**CS3-13-4  Petroclival meningiomas**  
Ibrahim Sbeih  
Neurosurgical Department, Ibn Al-Haytham Hospital, Jordan

**CS3-13-5  Treatment of petroclival meningiomas**  
Lars Poulsgaard  
University Clinic of Neurosurgery, Denmark

**CS3-13-6  For small petrous apex meningiomas causing refractory trigeminal neuropathy, can surgery play a role in the minimally invasive era?**  
Ahmed Hegazy  
Department of Neurosurgery, Cairo University, Egypt

**CS3-13-7  Petroclival meningioma: Choosing the right approach**  
Suresh Nair Narayan Nair  
Department of Neurosurgery, Sree Chitra Tirunal Institute for Medical Sciences & Technology, India

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**Plenary Session 3-4**
16:40~17:30  
Room A (Conference Room 1003)

**Skull Base Masters**

Moderators: Kenji Ohata (Japan)  
Basant K. Misra (India)

**PS3-4-1  Tuberculum sellae meningioma: A report on management on the basis of a surgical experience with 250 cases**  
Atul Goel  
Department of Neurosurgery, King Edward VIII Memorial Hospital and Seth G.S. Medical College, India

**PS3-4-2  Tuberculum sellae meningiomas-is there any role for the endoscopic approach?**  
Fred Gentili  
Division of Neurosurgery, University of Toronto, Canada
Surgery of Petroclival Lesions: Achieving the Best Outcome

Moderators: Hirofumi Nakatomi (Japan)
Gerardo Guinto (Mexico)
Suresh Nair Narayanan Nair (India)

BS3-2-1 Retromastoid approach for petroclival tumors, advantages and disadvantages
Zainal Muttaqin
Department of Neurosurgery, Diponegoro University, Indonesia

BS3-2-2 Combined extradural subtemporal and anterior transpetrosal approach to tumors located in the interpeduncular fossa and the upper clivus
Masaru Aoyagi
Department of Neurosurgery, Shioda Memorial Hospital / Department of Neurosurgery, Kameda Medical Center, Japan

BS3-2-3 Improving functional preservation during cerebello-pontine angle meningioma surgery
Hirofumi Nakatomi
Department of Neurosurgery, University of Tokyo, Japan

BS3-2-4 Trigeminal Schwannomas: Surgical treatment
Gerardo Guinto
Neurosurgery, Centro Medico Nacional Siglo XXI, Mexico

BS3-2-5 Trigeminal schwannoma: Importance of dural reflection of middle fossa
Suresh Nair Narayanan Nair
Department of Neurosurgery, Sree Chitra Tirunal Institute for Medical Sciences & Technology, India

BS3-2-6 Intracranial epidermoid cysts
Vadim N. Shimansky
WFNS, Russia

Non-Invansive Management of Meningioma: Radiation/Radiosurgery

Moderators: Teiji Tominaga (Japan)
Alfredo Conti (Italy)
Ali Ayyad (Germany)

CS3-2-1 Current stereotactic microradiosurgery for cavernous sinus tumors
Motohiro Hayashi
Department of Neurosurgery, Tokyo Women’s Medical University, Japan

CS3-2-2 Gamma knife radiosurgery for skull base meningiomas – Long-term results of low-dose treatment
Yoshiyasu Iwai
Department of Neurosurgery, Osaka City General Hospital, Japan

CS3-2-3 Boron neutron capture therapy for high-grade skull base meningioma
Koji Takeuchi
Department of Neurosurgery & Endovascular Neurosurgery, Osaka Medical College, Japan

CS3-2-4 Robotic radiosurgery: Innovation and results in the treatment of parasellar tumors
Alfredo Conti
Department of Neurosurgery, University of Messina, Italy

CS3-2-5 Clinical outcome of gamma knife radiosurgery for skull base meningiomas after surgery: Effect for residual tumors and preservation of cranial nerve function
Masahito Kobayashi
Department of Neurosurgery, Saitama Medical University Hospital / Mihara Memorial Hospital / Keio University, School of Medicine, Japan
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<th>Session Code</th>
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<th>Speaker</th>
<th>Institution</th>
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<tr>
<td>CS3-2-6</td>
<td><strong>Cyberknife stereotactic radiosurgery for atypical and malignant meningiomas</strong></td>
<td>Allen L. Ho</td>
<td>Department of Neurosurgery, Stanford University, School of Medicine, USA</td>
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<tr>
<td>CS3-2-7</td>
<td><strong>Radiation induced meningioma</strong></td>
<td>Ali Ayyad</td>
<td>Department of Neurosurgery, Johannes Gutenberg University, Germany</td>
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**Plenary Session 3-2**

**11:00~12:00 Room B (Conference Room 1009)**

**Basic Science of Skull Base Pathologies**

**Moderators:** Ian F. Dunn *(USA)*  
Yoko Takahashi *(USA)*

**PS3-2-1**  
**Current understanding of the meningioma genome**  
Ian F. Dunn  
Department of Neurosurgery, Brigham and Women’s Hospital, USA

**PS3-2-2**  
**Prospective evaluation of molecular prognostication markers in clival chordomas**  
Paul A. Gardner  
Department of Neurological Surgery, University of Pittsburgh Medical Center, USA

**PS3-2-3**  
**Molecular characterization of sinonasal undifferentiated carcinoma-Update**  
Yoko Takahashi  
Department of Head and Neck Surgery, The University of Texas MD Anderson Cancer Center, USA

**PS3-2-4**  
**Intracranial pressure revisited: A novel intravascular receptor detected**  
Martin Nue Moeller  
Department of Otorhinolaryngology, Head and Neck Surgery Rigshospitalet / University of Copenhagen, Denmark

**Concurrent Session 3-8**

**13:30~15:00 Room B (Conference Room 1009)**

**Meningioma: Utilization of Optimum Surgical Strategy for Better Outcome**

**Moderators:** Kazuhiko Nosaki *(Japan)*  
Tiit Mathiesen *(Sweden)*  
Yury A. Shulev *(Russia)*

**CS3-8-1**  
**Keynote**  
Long-term recurrence data on radical and "maximal safe" removal of cranial base meningiomas  
Tiit Mathiesen  
Department of Neurosurgery, Karolinska Hospital, Sweden

**CS3-8-2**  
**Surgical management of petroclival tumors: Discussion of outcome measurement**  
Yury Shulev  
Department of Neurosurgery, City hospital # 2, Saint-Petersburg / North-West State Medical University, Russia

**CS3-8-3**  
**Variation on surgical approaches to central skull base meningiomas**  
Imad N. Kanaan  
Department of Neurosurgery, King Faisal Specialist Hospital and Research Center, Saudi Arabia

**CS3-8-4**  
**Clinical analysis of meningiomas treated with anterior transpetrosal approach**  
Yuichiro Tanaka  
Department of Neurosurgery, St. Marianna University School of Medicine, Japan

**CS3-8-5**  
**Intraventricular meningiomas -a clinopathologic study and review**  
Harjinder S. Bhatoe  
Department of Neurosurgery, Max Super Specialty Hospital PPG, India

**CS3-8-6**  
**Feature of elderly meningioma in Japan - Surgical strategy and pitfalls**  
Fusao Ikawa  
Department of Neurosurgery, Graduate School of Biomedical and Health Sciences, Hiroshima University, Japan
### Concurrent Session 3-14

**15:10~16:40 Room B (Conference Room 1009)**

**Aggressive Meningiomas: How to Treat?**

**Moderators:** Naoyuki Nakao (Japan)  
Benedicto Oscar Colli (Brazil)  
Keran Arrautovic (USA)

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<th>Speaker</th>
<th>Institution</th>
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<tbody>
<tr>
<td>CS3-14-1</td>
<td>Grades II and III meningiomas: Experience in a public hospital in São Paulo States, Brazil</td>
<td>Benedicto O. Colli</td>
<td>Hospital das Clínicas, Department of Surgery, Ribeirao Preto Medical School, University of São Paulo, Brazil</td>
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<tr>
<td>CS3-14-2</td>
<td>Surgical approach for aggressive skull base meningiomas</td>
<td>Naoyuki Nakao</td>
<td>Wakayama Medical University, Japan</td>
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<tr>
<td>CS3-14-3</td>
<td>Surgical challenging for atypical and anaplastic meningiomas and its outcomes</td>
<td>Seiichiro Eguchi</td>
<td>Department of Neurosurgery, National Cerebral and Cardiovascular Center, Japan</td>
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<td>CS3-14-4</td>
<td>Malignant meningioma of WHO Grade III at Shanghai Huashan Hospital from 2003 to 2008</td>
<td>Qing Xie</td>
<td>Huashan Hospital of Fudan University / Fudan University, China</td>
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<td>CS3-14-5</td>
<td>Meningioma en plaque (WHO Grade I) with extensive osseous metaplasia</td>
<td>Ralf Buhl</td>
<td>Department of Neurosurgery, Klinikum Solingen, Germany</td>
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<tr>
<td>CS3-14-6</td>
<td>Lateral approach for management of ventrally located upper cervical meningioma</td>
<td>Ali Ayyad</td>
<td>Department of Neurosurgery, Johannes Gutenberg University, Germany</td>
</tr>
<tr>
<td>CS3-14-7</td>
<td>Intradural extramedullary spinal meningioma: Personal series</td>
<td>Kenan Arnautovic</td>
<td>Department of Neurosurgery, University of Tennessee Health Science Center, USA</td>
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Breakfast Seminar 3-3
7:30~8:10 Room C (Conference Room 1008)

The Admirable Harmony between Endoscope and Microsurgery

Moderators: Jose A. Landeiro (Brazil)  
Jens Lehmberg (Germany)  
Naoyuki Nakao (Japan)

BS3-3-1  Transbasal approach for anterior skull base tumors invading optic canal with acute visual impairment  
Koji Fujita  
Department of Neurological Surgery, Wakayama Medical University, Japan

BS3-3-2  Anterior skull base tumors: The role of the endoscopic approaches  
José A. Landeiro  
Department of Neurosurgery, Universidade Federal Fluminense, Rio de Janeiro / Hospital Universitário Antônio Pedro, Brazil

BS3-3-3  Endoscopic resection of clival chordoma  
Rungsak Siwanuwat  
Division of Neurosurgery, Department of Surgery, Chulalongkorn University, Thailand

BS3-3-4  “360° Around the posterior fossa - Pros and cons of multiple surgical approaches”  
Jens Lehmberg  
Department of Neurosurgery, Technical University Munich, Germany

Sponsored Satellite Session 2
8:10~8:30 Room C (Conference Room 1008)

MURANAKA MEDICAL INSTRUMENTS Morning Satellite Session

Moderators: Naoyuki Nakao (Japan)

SSS3-1-1  Endoscopic endonasal skull base surgery  
Masahiro Toda  
Department of Neurosurgery, Keio University School of Medicine, Japan

SSS3-1-2  “Microsurgical” technique during the endoscopic endonasal surgery  
Masaaki Taniguchi  
Department of Neurosurgery, Kobe University Graduate School of Medicine, Japan

Sponsored by: MURANAKA MEDICAL INSTRUMENTS CO. LTD.

Concurrent Session 3-3
8:50~10:20 Room C (Conference Room 1008)

Jugular Foramen/Foramen Magnum: What Are the Current Managements?

Moderators: Hiroyuki Nakase (Japan)  
Dwarakanath Srinivas (India)  
Michael McDermott (USA)

CS3-3-1  Surgery on mass lesions at cranio-cervical junction  
Christian Lumenta  
Department of Neurosurgery, Bogenhausen Academic Teaching Hospital, Technical University of Munich, Germany

CS3-3-2  Hypoglossal Neurilemmoma: Surgical approach and results  
Keki Turel  
Neurosurgery Clinic, Bombay Hospital and Medical Research Centre, India

CS3-3-3  Microsurgical management of ventral foramen magnum meningiomas  
Mingguang Zhang  
Department of Neurosurgery, Huashan Hospital, Fudan University, China

CS3-3-4  Condylar preservation in modified far lateral approaches to foramen magnum  
Dwarakanath Srinivas  
Department of Neurosurgery, National Institute of Mental Health and Neurosciences (NIMHANS), India
CS3-3-5 Comprehensive surgical management of the cranio-vertebral junction (CVJ) tumors
Hiroyuki Nakase
Department of Neurosurgery, Nara Medical University, Japan

CS3-3-6 Petro-occipital trans-sigmoid approach for jugular foramen schwannomas
Jun Yang
Department of Otolaryngology, Head and Neck Surgery, Shanghai Jiaotong University School of Medicine, Ear Institute, Shanghai Jiaotong University School of Medicine, Shanghai Key Laboratory of Translational Medicine on Ear and Nose diseases, China

CS3-3-7 Evolving concepts of Chiari malformation
Atul Goel
Department of Neurosurgery, King Edward VII Memorial Hospital and G.S. Medical College Seth G.S. Medical College and K.E.M Hospital, India

Plenary Session 3-3
11:00~12:00 Room C (Conference Room 1008)

Otorhinolaryngological and Reconstructive Aspects of Skull Base Surgery

Moderators: Michael Gleeson (UK)
Arturo Solares (USA)

PS3-3-1 Understanding the intricacies of endoscopic endonasal carotid dissection
Arturo Solares
Department of Otolaryngology, Center for Cranical Base Surgery, Georgia Regents University, USA

PS3-3-2 Recognition and management of late complications of anterior skull base surgery
Stacey Gray
Department of Otolaryngology, Massachusetts Eye and Ear, Harvard Medical School, USA

PS3-3-3 Extent of surgical resection in the management of sinonasal and skull base malignancies: Is there a role for structure preservation?
Derric T. Lin
Department of Otolaryngology, Massachusetts Eye and Ear, Harvard Medical School, USA

PS3-3-4 Lateral skull base reconstruction- when fat is not the answer
Rupert Obholzer
Department of ENT, King’s College, UK

Luncheon Satellite 3-1
12:20~13:20 Room C (Conference Room 1008)

Medtronic Luncheon Satellite Session

Moderator: Mitsuhiro Hasegawa (Japan)

LS3-1-1 Endoscopic transnasal approaches for skull base lesions: Reach for the deeper and the farther areas, but how much sacrifice of innocent nasal anatomy?
Masahiro Shin
Department of Neurosurgery, The University of Tokyo Hospital, Japan

LS3-1-2 A quest for better outcome - Can skull base surgeons add more technical and strategical nuances beyond the extent of resection?
Soichi Oya
Saitama Medical Center, Saitama Medical University, Japan

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Concurrent Session 3-9
13:30~15:00 Room C (Conference Room 1008)

Surgery of Clinoidal/Tuberculum Sellae: Management of Choice
Moderators: Steven A. Newman (USA)
Vladimír Beneš (Czech Republic)
Michael McDermott (USA)

**CS3-9-1**  Meningiomas of the anterior visual pathway: Evolution of diagnosis and treatment
Keynote
Steven A. Newman
*Department of Ophthalmology, University of Virginia Health System, USA*

**CS3-9-2**  Surgical management of anterior cranial fossa meningiomas involving optic nerves. surgical techniques and results
Khaled Mohamed El-Bahi
*Department of Neurosurgery, Ain Shams University, Egypt*

**CS3-9-3**  Anterior clinoidal meningiomas: Clinicoradiological features and surgical outcome
Kyung-Sub Moon
*Department of Neurosurgery, Chonnam National University Hwasun Hospital & Medical School, Korea*

**CS3-9-4**  Classification of tuberculum sellae meningiomas and outcomes based on scoring and surgical approach
Michael McDermott
*Department of Neurological surgery, University of California, USA*

**CS3-9-5**  Surgical outcomes of clinoidal meningioma
Seung H. Lee
*Department of Neurosurgery, Kyung Hee University, College of Medicine, Korea*

**CS3-9-6**  Avoidance of serious complications in surgery for paraclinoid meningiomas
Soichi Oya
*Department of Neurosurgery, Saitama Medical Center/University, Japan*

**CS3-9-7**  Tuberculum sellae meningiomas
Florian I. Stefan
*Department of Neurosurgery, Cluj County Emergency Hospital, Romania*

Concurrent Session 3-15
15:10~16:40 Room C (Conference Room 1008)

Management of Veins and How to Overcome the Challenges
Moderators: Antonio Cerejo (Portugal)
Toru Matsui (Japan)
Shin Jung (Korea)

**CS3-15-1**  New physiological vessel’s quality - biomechanical study- brain veins
Jan Hemza
*Faculty Hospital at Saint Ann, Masaryk University, Czech Republic*

**CS3-15-2**  Dural incision in the petrosal approach with preservation of the superior petrosal vein
Irwan Barlian Immadoel Haq
*Department of Neurosurgery, Airlangga University, Indonesia*

**CS3-15-3**  Analysis of petrosal vein in surgery of petroclival meningiomas
Katsuhiro Mizutani
*Department of Neurosurgery, Keio University School of Medicine, Japan*

**CS3-15-4**  Trigeminal neuralgia caused solely by vein: Diagnosis and management
Takuro Inoue
*Department of Neurosurgery, Koto Memorial Hospital, Japan*

**CS3-15-5**  Ultrasound doppler for identification of venous sinuses
Steffen K. Rosahl
*Department of Neurosurgery, HELIOS Klinikum Erfurt, Germany*
CS3-15-6  Surgical treatment of tentorial and falcotentorial meningimas  
Necmetin Pamir  
Department of Neurosurgery, Acibadem University, Turkey

CS3-15-7  Surgical strategy for intracranial meningioma involving major venous sinus  
Woo Youl Jang  
Department of Neurosurgery, Chonnam National University Hwasun Hospital, Korea
**Breakfast Seminar 3-4**

**7:30~8:30**

**Room D (Conference Room 1001)**

**Skull Base Defect Closure: Inventive Techniques for a Promising Complication Free Outcome**

**Moderators:** Bing Zhou *(China)*  
Hannah J. D. North *(UK)*  
Sin S. Jeun *(Korea)*

**BS3-4-1**
**Anterior skull base defect closures in malignancies: Our experience**
Rajan V. Sundaresan  
*Department of ENT-1, Head & Neck Skull Base Unit, Christian Medical College, India*

**BS3-4-2**
**Evolution of free-fat autograft in skull base defects reconstruction**
Yury A. Shulev  
*Neurosurgical Department City Hospital # 2 / North-West State Medical University, Russia*

**BS3-4-3**
**Transnasal endoscopic repair of skull base defects for CSF rhinorhea**
Bing Zhou  
*Department of Otolaryngology-Head and Neck Surgery, Beijing Tongren Hospital, Capital Medical University, China*

**BS3-4-4**
**The surgical management of temporal bone and lateral skull base defects**
Hannah JD North  
*Salford Royal Foundation Trust, UK*

**BS3-4-5**
**Graded repair protocol for cerebrospinal fluid leaks in endoscopic endonasal transsphenoidal surgery**
Sin Soo Jeun  
*Department of Neurosurgery, Seoul St. Mary's Hospital, The Catholic University of Korea, Korea*

**BS3-4-6**
**Skull base reconstruction with multilayer method in endonasal endoscopic surgery**
Fumihiko Nishimura  
*Department of Neurosurgery, Nara Medical University, Japan*

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**Concurrent Session 3-4**

**8:50~10:20**

**Room D (Conference Room 1001)**

**Vestibular Schwannoma: Impact of Radiosurgery and Morphological Approach**

**Moderators:** Siviero Agazzi *(USA)*  
James Tysome *(UK)*  
Tomokatsu Hori *(Japan)*

**CS3-4-1**
**The direction of tumor growth as a predictor of faciel nerve outcome and degree of resection in vestibular schwannoma surgery**
Siviero Agazzi  
*Department of Neurosurgery, University of South Florida, USA*

**CS3-4-2**
**Clinical characteristic and surgical outcomes of patients with vestibular schwannomas after failed previous fractionated stereotactic radiotherapy**
Shunsuke Terasaka  
*Department of Neurosurgery, Hokkaido University, Japan*

**CS3-4-3**
**Growth potential analysis of vestibular schwannoma before and after stereotactic radiosurgery**
Yoshinori Higuchi  
*Department of Neurological Surgery, Chiba University Graduate School of Medicine, Japan*

**CS3-4-4**
**Risk of separate malignancy after radiation of vestibular schwannoma**
Matthew L. Carlson  
*Department of Otorhinolaryngology Mayo Clinic / Department of Neurologic Surgery Mayo Clinic, USA*

**CS3-4-5**
**Semi-automated volumetric measurements of vestibular schwannomas: Is this feasible in clinical practice?**
James Tysome  
*Department of Otolaryngology, Cambridge University, UK*

**CS3-4-6**
**Stereotactic radiosurgery based on microanatomy in vestibular schwannomas**
Motohiro Hayashi  
*Department of Neurosurgery, Tokyo Women's Medical University, Japan*
**Luncheon Satellite 3-2**
12:20~13:20  Room D (Conference Room 1001)

**MIZUHO/CHARMANT Luncheon Satellite Session**

**Moderator:** Hirofumi Nakatomi (Japan)

**LS3-2-1**  Endoscopic skull base surgery Technical standards and advance in instruments  
Tetsuya Nagatani  
*Japanese Red Cross Nagoya Daini Hospital, Japan*

*Sponsored by: MIZUHO Corporation/CHARMANT Inc.*

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**Concurrent Session 3-10**

**13:30~15:00  Room D (Conference Room 1001)**

**Petroclival Meningioma: Surgery & Embolization**

**Moderators:**  
Alexey N. Shkarubo (Russia)  
Jie Tang (China)  
Kensuke Suzuki (Japan)

**CS3-10-1**  Strategy of petroclival meningioma: MEP monitoring and brainstem edema  
Taku Sato  
*Department of Neurosurgery, Fukushima Medical University, Japan*

**CS3-10-2**  Surgical treatment and prognostic analysis of petroclival meningiomas  
Xinru Xiao  
*Department of Neurosurgery, Beijing Tiantan Hospital, Capital Medical University, China*

**CS3-10-3**  Petrous meningiomas: The impact of tumor location on clinical presentations and surgical outcome  
Kuntal K. Das  
*Neurosurgery Department Sanjay Gandhi Postgraduate Institute of Medical Sciences, India*

**CS3-10-4**  Surgical strategy for tentorial meningiomas  
Andrii Lytvynenko  
*Neurosurgery Department Clinical Hospital "Feofania" Clinical Hospital "Feofania", Ukraine*

**CS3-10-5**  Microsurgical management of primary jugular foramen meningiomas  
Jie Tang  
*Department of Neurosurgery, Beijing Tiantan Hospital, China*

**CS3-10-6**  Strategy of preoperative embolization for skull base meningioma, view point of skull base anastomosis  
Kensuke Suzuki  
*Department of Neurosurgery, Dokkyo Medical University Koshigaya Hospital, Japan*

**CS3-10-7**  Safety and efficacy of preoperative embolization in patients with meningioma  
Junya Tatezuki  
*Department of Neurosurgery, Yokohama City University Medical Center, Japan*

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**Concurrent Session 3-16**

**15:10~16:40  Room D (Conference Room 1001)**

**Basic Research on Meningioma / Meningioma Surgery**

**Moderators:**  
Soichi Oya (Japan)  
Wenya Linda Bi (USA)  
Kyi Hlaing (Myanmar)

**CS3-16-1**  Intraoperative assessment of the proliferative potential of meningioma cells  
Soichi Oya  
*Department of Neurosurgery, Saitama Medical Center/University, Japan*

**CS3-16-2**  Landscape of genomic alterations in high-grade meningioma  
Wenya L. Bi  
*Department of Neurosurgery, Brigham and Women’s Hospital, Harvard Medical School, USA*
CS3-16-3  Genomic alterations in skull base meningiomas  
Wenya L. Bi  
Department of Neurosurgery, Brigham and Women’s Hospital, Harvard Medical School, USA

CS3-16-4  Microarray gene expression profiling of skull base invasive meningiomas  
Mudathir S. Bakhit  
Department of Neurosurgery, Fukushima Medical University, Japan

CS3-16-5  Anatomical distribution and postoperative ischemia of perforators in clinoid meningiomas  
Kensuke Murakami  
Department of Neurosurgery, National Hospital Organization, Sendai Medical Center, Japan

CS3-16-6  Surgery of clinoidal meningiomas  
Tsutomu Masuda  
Shin-komonji Hospital, Japan

CS3-16-7  Meningioma surgery (Myanmar experience)  
Kyi Hlaing  
University of Medicine(2), North Okkalapa / Department of Neurosurgery, Yangon General Hospital, Myanmar
Contemporary Management of Temporal Bone Malignancies

Moderators: Akihiro Homma (Japan)
Kiyoto Shiga (Japan)
Romain Kania (France)

BS3-5-1 Salvage operations for patients with persistent or recurrent cancer of the maxillary sinus after superselective intra-arterial infusion of cisplatin with concurrent radiotherapy
Akihiro Homma
Department of Otolaryngology-Head and Neck Surgery, Hokkaido University Graduate School of Medicine, Japan

BS3-5-2 Concomitant chemo-radiotherapy as a standard treatment for squamous cell carcinoma of the temporal bone
Kiyoto Shiga
Department of Otolaryngology-Head and Neck Surgery, Iwate Medical University, Japan

BS3-5-3 Temporal bone resection for malignancy
Romain Kania
Department of Otolaryngology-Head and Neck Surgery, Paris Sorbonne University / APHP Lariboisiere University Hospital, France

BS3-5-4 Tumor in the lateral skull base
Atsunobu Tsunoda
Juntendo University School of Medicine, Japan

BS3-5-5 Poor prognostic factors in squamous cell carcinoma of temporal bone
Takashi Nakagawa
Graduate School of Medical Sciences, Kyushu University / Fukuoka University School of Medicine, Japan

BS3-5-6 Surgical techniques in temporal bone resection for malignancy
Hiroyuki Jimbo
Department of Neurosurgery, Tokyo Medical University Hachioji Medical Center, Japan

Concurrent Session 3-5
8:50~10:20 Room E (Conference Room 1002)

Clival Chordoma: Exploration for the Best Management

Moderators: Kyu-Sung Lee (Korea)
Savaş Ceylan (Turkey)
Mohamed E. El-Fiki (Egypt)

Keynote

CS3-5-1 Occipito-cervical fusion in huge cranio-cervical junction chordomas
Kyu-Sung Lee
Gangnam Severance Hospital, Yonsei University Health System, Department of Neurosurgery, Korea

CS3-5-2 Multimodal Management outcome of chondrosarcomas of the skull base
Franco De Monte
Department of Neurosurgery, The University of Texas M.D. Anderson Cancer Center, USA

CS3-5-3 Extended endoscopic approach for clival chordomas & chondrosarcomas
Savas Ceylan
University of Kocaeli, Turkey

CS3-5-4 Extracranial surgery of the skull base and craniovertebral junction chordomas
Alexey N. Shkarubo
Department of Neurooncology, The N.N. Burdenko Neurosurgical Institute, Russia

CS3-5-5 Results of endoscopic navigation guided resection of clival chordoma
Mohamed E. El-Fiki
University of Alexandria, Department of Neurosurgery, Egypt

CS3-5-6 Clival chordoma - What is the actual state-of-art therapeutic regimen
Jens Lehmburg
Department of Neurosurgery, Technical University Munich, Germany
CS3-5-7  Indications and problems in endoscopic endonasal surgery for skull base tumors
Koji Yoshimoto
Department of Neurosurgery, Graduate School of Medical Sciences, Kyushu University, Japan

Concurrent Session 3-11
13:30~15:00  Room E (Conference Room 1002)

How to Reconstruct & Manage
Moderators: Yoichi Katayama (Japan)
Manas Panigrahi (India)
Jan Hemza (Czech Republic)

CS3-11-1  Clinical features of otic capsule sparing temporal bone fractures
Beomcho Jun
Department of Otolaryngology Head and Neck Surgery, Uijeongbu St. Mary Hospital, The College of Medicine Catholic University of Korea, Korea

CS3-11-2  Preventing CSF leak after retromastoid suboccipital excision of CP angle tumors: Are fibrin sealants essential?
Manas Panigrahi
Department of Neurosurgery, Krishna Institute of Medical Sciences, India

CS3-11-3  Cause analysis and treatment of infected cutaneous fistula after craniotomy
Takuya Akai
Department of Neurosurgery, Kanazawa Medical University, Japan

CS3-11-4  Own 23yr. experiences with skull base trauma - the controversies
Jan Hemza
Department of Neurosurgery, Faculty Hospital at Saint Ann, Masaryk University, Czech Republic

CS3-11-5  Penetrating traumatic brain injury in children
Mazhar Z. Darwazeh
Department of Neurosurgery, Minsk-Medical Institute, State of Palestine

CS3-11-6  Reconstruction of large skull defects after extensive removal of skull base tumors: Is bony reconstruction for skull base defects necessary to prevent brain herniation?
Shinya Jinguji
Department of Neurosurgery, Fukushima Medical University, Japan

Concurrent Session 3-17
15:10~16:40  Room E (Conference Room 1002)

Management of Facial Nerve: How to Achieve the Goal?
Moderators: Vincent C. Cousins (Australia)
Alok Thaker (India)
Ken Matsuda (Japan)

CS3-17-1  Facial palsy in skull base trauma
Keynote
Vincent C. Cousins
The Alfred Hospital/ Department of Surgery, Monash University, Australia

CS3-17-2  Should surgery be the standard of care for facial paralysis secondary to temporal bone fracture
Alok Thakar
Department of Neurosurgery, All India Institute of Medical Sciences, India

CS3-17-3  The pattern of temporal bone fracture in relation with imaging findings and peripheral facial nerve palsy
Muhammad Kusdiansah
Department of Neurosurgery, University of Padjajaran Hasan Sadikin Hospital, Indonesia

CS3-17-4  Facial reanimation- meeting the different requirements of skull base patients
Rupert Obholzer
Department of ENT, King’s College, UK
CS3-17-5 Dynamic/static reconstructions for various type of facial paralysis
Ken Matsuda
Division of Plastic and Reconstructive Surgery, Niigata University Graduate School of Medicine, Japan
Breakfast Seminar 3-6
7:30~8:30  Room F (Conference Room 801-2)

Complicated Vestibular Schwannoma: Overcoming the Hardship
Moderators: Xuhui Hui (China)
Tetsuya Goto (Japan)
Sergey Spektor (Israel)

BS3-6-1  Surgical strategy in treating with giant vestibular schwannomas (GVS)
Xuhui Hui
Department of Neurosurgery, West China Hospital of Sichuan University, China

BS3-6-2  Influence of cystic degeneration on management strategy in vestibular schwannoma
Zhihua Zhang
Department of Otolaryngology Head & Neck Surgery, Xinhua Hospital Shanghai Jiaotong University School of Medicine / Shanghai Key Laboratory of Translational Medicine on Ear and Nose diseases / Ear Institute Shanghai Jiaotong University, China

BS3-6-3  Clinical characteristics and operative strategy of hypervascular vestibular schwannoma
Yu Teranishi
Department of Neurosurgery, Tokyo Metropolitan Police Hospital, Japan

BS3-6-4  Relationship between warning sign of intraoperative facial motor evoked potential monitoring and postoperative facial function in a vestibular schwannoma surgery
Tetsuya Goto
Department of Neurosurgery, Shinshu University School of Medicine, Japan

BS3-6-5  Posterior tranpetrosal approaches: Indications and modifications
Sergey Spektor
Department of Neurosurgery, Hadassah Hebrew University Medical Center, Israel

BS3-6-6  Volumetric assessment of subdural air collections after vestibular schwannoma surgery in the semisitting position
Milan Stanojevic
Department of Neurosurgery, University of Tuebingen, Germany

Concurrent Session 3-6
8:50~10:20  Room F (Conference Room 801-2)

Brain Stem Surgery: In Search for the Definite Treatment
Moderators: Ismail H. Aydin (Turkey)
Zhan Xue (China)
Ganesh Krishnamurthy (India)

CS3-6-1  Brainstem cavernous malformations: Reconsideration of the surgical strategies
Xuhui Hui
West China Hospital of Sichuan University, China

CS3-6-2  Treatment strategies for brainstem lesions by neuroendoscope
Kazuhi Takeuchi
Nagoya University, Japan

CS3-6-3  Surgical treatment of pediatric brain-stem gliomas
Zhan Xue
Beijing Tiantan Hospital, China

CS3-6-4  Surgical management of medulla oblongata cavernoma
Ganesh Krishnamurthy
Department of Neurosurgery, Sri Ramachandra University, India

CS3-6-5  Surgical intervention for brainstem hemorrhagic cavernous angiomas and long-term outcomes
Seiichiro Eguchi
Department of Neurosurgery, National Cerebral and Cardiovascular Center, Japan

CS3-6-6  Yasargil highway in skull base
Ismail H. Aydin
Department of Neurosurgery, Istanbul Aydin University, Turkey
Concurrent Session 3-12
13:30~15:00  Room F (Conference Room 801-2)

Vestibular Schwannoma - Importance of Functional Preservation

Moderators: Alexander I. Evins (USA)
Zainal Muttagin (Indonesia)
Laxminarayan Tripathy (India)

CS3-12-1  Selective schwannomectomy for small acoustic neuromas: Beyond preserving hearing
Yojiro Seki
Department of Neurosurgery, Tokyo Kyosai Hospital, Japan

CS3-12-2  The management of internal auditory canal in acoustic neuroma surgery
Dong Zhong
Department of Neurosurgery, the First Affiliated Hospital of Chongqing Medical University, China

CS3-12-3  A minimally invasive percutaneous transtubular middle fossa approach for acoustic neuromas
Alexander I. Evins
Department of Neurological Surgery, Weill Cornell Medical College, USA

CS3-12-4  Retro-labyrinthine or retro-sigmoid approaches for vestibular neurectomy
Jun Yang
Department of Otolaryngology, Head and Neck Surgery, Shanghai Jiaotong University School of Medicine, Ear Institute, Shanghai Jiaotong University School of Medicine, Shanghai Key Laboratory of Translational Medicine on Ear and Nose diseases, China

CS3-12-5  Retromastoid approach. How I do it?
Zainal Muttagin
Department of Neurosurgery, Diponegoro University, Indonesia

CS3-12-6  Misdiagnosis of isolated IAC mass and intra-operative decision-make
Huan Jia
Department of Otolaryngology, Head and Neck Surgery, Shanghai Jiaotong University School of Medicine, Ear Institute, Shanghai Jiaotong University School of Medicine, Shanghai Key Laboratory of Translational Medicine on Ear and Nose diseases, China

CS3-12-7  Bilateral supratentorial extradural haematoma following VP shunt insertion & posterior fossa tumour excision- Case report, literature review and lesson learnt
Laxminarayan Tripathy
Department of Neurosurgery, Medica Superspecialty Hospital, India

Concurrent Session 3-18
15:10~16:40  Room F (Conference Room 801-2)

Vascular Disease: Surgical Treatment and Outcome

Joint Session: Indio-Japan Neurosurgical Conference

Moderators: Kiyoshi Saito (Japan)
Sanjay Behari (India)
Sampath Somanna (India)

CS3-18-1  Risk of rupture of small sized aneurysm?
Hanish Bansal
Department Of Neurosurgery, Dayanand Medical College and Hospital, India

CS3-18-2  Factors affecting short and long term outcome in surgically managed multiple aneurysms
Anant Mehrotra
Department of Neurosurgery, Sanjay Gandhi Post Graduate Institute of Medical Sciences, India

CS3-18-3  A1- segment aneurysms: Management protocol based on a new classification
Kamlesh S. Bhairosa
SGPGIMS Lucknow, India

CS3-18-4  Surgical treatment and outcome for paraclinoid aneurysms
Toshiyuki Tsuboi
Department of Neurosurgery, Sapporo Teishinkai Hospital, Japan
CS3-18-5  Skull base technique for complete neck clipping of basilar top aneurysm; Frequency and usefulness
Yu Kinoshita
Department of Neurosurgery, Sapporo Teishinkai Hospital, Japan

CS3-18-6  Extended endonasal endoscopic transclival clipping of basilar artery aneurysms
Sampath Somanna
Department of Neurosurgery, National Institute of Mental Health and Neurosciences, India

CS3-18-7  Development of a new high-resolution intraoperative imaging system to simultaneously visualize light and near-infrared fluorescence images of ICG
Kiyoshi Saito
Department of Neurosurgery, Fukushima Medical University, Japan