June 15

Main Session 1-1

8:00~9:30 Room A (Conference Room 1003)

Surgery of Chordoma: Trending Treatments

Moderators: David Choi *(UK)*
Sebastien Froelich *(France)*

MS1-1-1 **Chordoma: Can we achieve cure?**
Keynote Ossama Al-Mefty
Department of Neurosurgery, Brigham and Women's Hospital, Harvard Medical School, USA

MS1-1-2 **Chordomas of skull base: State of the Art**
Laligam N. Sekhar
Department of Neurological Surgery, University of Washington, USA

MS1-1-3 **Treatment of clival and craniocervical junction chordomas**
David Choi
University College London Hospitals, UK

MS1-1-5 **Chordomas**
Sebastien Froelich
Department of Neurosurgery, Lariboisiere Hospital, France

MS1-1-6 **Proton radiotherapy for adult cases with clival chordoma**
Kouji Tsuboi
Departments of Radiation Oncology, University of Tsukuba, Japan

Plenary Session 1-1

9:40~10:25 Room A (Conference Room 1003)

Hakuba Memorial Session

Moderators: Takeshi Kawase *(Japan)*
Takamasa Kayama *(Japan)*
Basant K. Misra *(India)*

PS1-1-1 **Presidential address**
Kenji Ohata
Department of Neurosurgery, Osaka City University Graduate School of Medicine, Japan

PS1-1-2 **How endoscope can support skull base microsurgery**
Madjid Samii
INI Hannover, Germany

PS1-1-3 **Skull base surgery: The premise and the promise**
Ossama Al-Mefty
Department of Neurosurgery, Brigham and Women's Hospital, Harvard Medical School, USA

Plenary Session 1-2

10:25~11:10 Room A (Conference Room 1003)

Plenary Symposium

Moderators: Kenji Ohata *(Japan)*
Atul Goel *(India)*

PS1-2-1 **Training for risk management in skull base surgery: Is it rocket science?**
Jacques Morcos
Department of Neurosurgery, University of Miami, USA

PS1-2-2 **Risk management for human spaceflight system and operations**
Kaneaki Narita
Japan Aerospace Exploration Agency, Japan

Main Session 1-2

11:20~12:40 Room A (Conference Room 1003)

Controversies in Skull Base Surgery: Endoscopy vs. Craniotomy

Moderators: Fred Gentili *(Canada)*
Paul A. Gardner *(USA)*
Savaş Ceylan *(Turkey)*

MS1-2-1 **Endoscopy versus craniotomy: Where are we on Scott's Parabola in 2016?**
Keynote Jacques Morcos
Department of Neurosurgery, University of Miami, USA

MS1-2-2 **Management of craniopharyngiomas: Open vs. endoscopic techniques**
Fred Gentili
Department of Neurosurgery, University of Toronto, Canada

MS1-2-3 **Appropriate surgical indication of endoscopic endonasal approach for complicated skull base tumors**
Takeo Goto
Department of Neurosurgery, Osaka City University Graduate School of Medicine, Japan

MS1-2-4 **Complications of nasoseptal flap reconstruction**
Carl H. Snyderman
Department of Otolaryngology, University of Pittsburgh Medical Center, USA

MS1-2-5 **Extended endoscopic transsphenoidal approach infrachiasmatic corridor (Including tuberculum sellaemeningiomas, craniopharyngioma and other pathologies)**
Savas Ceylan
Department of Neurosurgery, University of Kocaeli, Turkey

MS1-2-6 **Endoscopic endonasal surgery for meningiomas: Advances and limitations**
Paul A. Gardner
Department of Neurosurgery, University of Pittsburgh Medical Center, USA

Main Session 1-3

14:00~15:30 Room A (Conference Room 1003)

Evolution of Lateral Skull Base / Infratemporal Fossa Approaches

Moderators: Dan M. Fliss *(Israel)*
Kenichi Nibu *(Japan)*
Dennis H. Kraus *(USA)*

MS1-3-1 **Infratemporal fossa approach**
Keynote Dan M. Fliss
Division of Otolaryngology, Head and Neck Surgery and Maxillofacial Surgery Tel Aviv Sourasky Medical Center, Israel

MS1-3-2 **Management of the infratemporal fossa for malignancy**
Dennis H. Kraus
Northwell Health, Lenox Hill Hospital, NYHNI Otolaryngology, USA

MS1-3-3 **Pure endoscopic and combined approaches to the petrous apex tumors**
Giovanni Danesi
ENT Department and Microsurgery of Skull Base, Ospedali Riuniti, Italy

MS1-3-4 **The role of endoscopy for surgical management of infratemporal fossa tumors**
James K. Liu
Department of Otolaryngology – Head and Neck Surgery, Rutgers New Jersey Medical School, USA

MS1-3-5 **Endoscopic transsphenoidal anterior petrosal approach for petroclival tumors**
Masahiro Shin
Department of Neurosurgery, The University of Tokyo, Japan

MS1-3-6 **Distinct endoscopic endonasal approaches to paraclival skull base lesions**
Masaaki Taniguchi
Department of Neurosurgery, Kobe University Graduate School of Medicine, Japan

Panel Discussion 1-1

16:00~17:10 Room A (Conference Room 1003)

Treatment Management of NF2

Moderators: Jörg Schipper *(Germany)*
Robert Behr *(Germany)*
Scott Plotkin *(USA)*

PD1-1-1 **Auditory brainstem implants**
Keynote
Robert Behr
Department of Neurosurgery, Klinikum Fulda Academic Hospital of the University of Marburg, Germany

PD1-1-2 **Hearing rehabilitation in NF2**
James R. Tysome
Department of ENT Cambridge University Hospitals, UK

PD1-1-3 **Evaluation of clinical factors of NF2 from nationwide registry data in Japan**
Kensho Iwatate
Department of Neurosurgery, Fukushima Medical University, Japan

PD1-1-4 **Growth patterns of intracranial tumors in neurofibromatosis type 2**
Steffen K. Rosahl
Department of Neurosurgery, HELIOS Klinikum, Erfurt, Germany

PD1-1-5 **Dynamic contrast enhancement in MRI as a tool for assessing and predicting response to bevacizumab treatment for vestibular schwannoma in NF2**
Hannah J.D. North
Salford Royal Foundation Trust, UK

PD1-1-6 **Activity and toxicity of bevacizumab treatment for neurofibromatosis- 2 related vestibular schwannoma**
Scott Plotkin
Department of Neurology and Cancer Center, Massachusetts General Hospital, USA

Proffered Paper 1-6

17:20~18:20 Room A (Conference Room 1003)

Use of Radiosurgery/Radiation therapy in Various Tumors

Moderators: Georgios Kontorinis *(UK)*
Marcello Marchetti *(Italy)*
Tomio Sasaki *(Japan)*

PP1-6-1 **Volumetric change of vestibular schwannomas after gamma knife radiosurgery**
Osamu Nagano
Department of Neurosurgery, Chiba Cerebral and Cardiovascular Center, Japan

PP1-6-2 **Treatment failure following SRS for vs; surgery or repeat SRS?**
Jawad Yousaf
Department of Neurosurgery, Salford Royal NHS Foundation Trust, UK

PP1-6-3 **Delayed vestibular schwannoma growth following steretoatactic radiosurgery**
Georgios Kontorinis
Department of Otolaryngology, Queen Elizabeth University Hospital, UK

PP1-6-4 **Head and neck paragangliomas radiosurgery: Long-term experience**
Marcello Marchetti
Department of Neurosurgery, Radiotherapy Unit, Fondazione IRCCS Istituto Neurologico "C.Besta", Italy

PP1-6-5 **Linac frameless radiosurgery for trigeminal neuralgia**
Claude F. Litre
Department of Neurosurgery, University Reims, France

PP1-6-6 **Proton beam therapy for pediatric skull base tumors**
Masashi Mizumoto
Departments of Radiation Oncology, University of Tsukuba, Japan

Concurrent Session 1-1

8:00~9:30 Room B (Conference Room 1009)

Surgery of CP Angle Tumors: Conquering the Skills

Moderators: Toshio Matsushima *(Japan)*
Hisham A. Aboul-Enein *(Egypt)*
Han K. Kim *(Korea)*

CS1-1-1 **Venous Anatomy for C-P angle Surgeries**
Keynote
Toshio Matsushima
Neuroscience Center, Fukuoka Sanno Hospital, Japan

CS1-1-2 **Cerebellopontine angel epidermoid cysts: New pathogenesis of cranial nerve dysfunction and their surgical outcome**
Mituhiro Hasegawa
Department of Neurosurgery, Fujita Health University, Japan

CS1-1-3 **Surgical resection of cerebello-pontine epidermoid cysts; Outcome & complications**
Hisham A. Aboul-Enein
Department of Neurosurgery, Alexandria University, Egypt

CS1-1-4 **Surgical management of intracranial epidermoid tumors; Lessons learned from 334 cases over 3 decades**
Goh Inoue
Department of Neurosurgery, Duke University, USA／Tokai University, Japan

CS1-1-5 **Surgical management of cerebello-pontine angle epidermoid tumors**
Milind Dunakhe
Department of Neurosurgery, Dunakhe Hospital Pvt. Ltd., India

CS1-1-6 **Development of TED scale for the surgery of petroclival tumors**
Han Kyu Kim
Department of Neurosurgery, Bundang Jesang General Hospital, Korea

CS1-1-7 **Surgical management of trigeminal neuroma**
Chang J. Kim
Department of Neurological Surgery, Asan Medical Center, University of Ulsan College of Medicine, Korea

Concurrent Session 1-5

11:20~12:40 Room B (Conference Room 1009)

Current Treatment of Vestibular Schwannoma: Adapting Conservative Treatment

Moderators: Martin Sames *(Czeoh Republic)*
Soren Hansen *(Denmark)*
Iwao Yamakami *(Japan)*

CS1-5-1 **Indication of surgery for small acoustic neuroma**
Keynote
Madjid Samii
Department of Neurosurgery, INI Hannover, Germany

CS1-5-2 **Conservatively managed sporadic vestibular schwannoma: Quality of life**
Soren Hansen
Department of Otorhinolaryngology Head and Neck Surgery, Rigshospitalet, Copenhagen University Hospital, Denmark

CS1-5-3 **Long-term outcome of small acoustic neurinoma removal with hearing preservation**
Iwao Yamakami
Department of Neurosurgery, Seikei-kai Chiba Medical Center, Japan

CS1-5-4 **Improving efficacy and safety of radiosurgery in skull base tumors: The role of microsurgery**
Luis Fernando M. Silva Jr.
Neurological Institute of Curitiba - INC, Brazil

CS1-5-5 **Surgical results and technical refinements in translabyrinthine excision of vestibular schwannomas: The gruppo otologico experience**
Alessandra Russo
Gruppo Otologico, Italy

CS1-5-6 **Quality of life in neurofibromatosis 2 patients - More than just vestibular schwannomas**
Scott Plotkin
Department of Neurosurgery and Cancer Center, Massachusetts General Hospital, USA

Luncheon Satellite 1-1

12:50~13:50 Room B (Conference Room 1009)

CODMAN Luncheon Satellite Session
Surgical strategic review for acoustic neuroma from the neurotological perspectives

Moderator: Mitsuhiro Hasegawa *(Japan)*

LS1-1-1
Mario Sanna
Neurotologist, Gruppo Otologico, Italy

LS1-1-2
Masamichi Kurosaki
Tottori University Hospital, Japan

Sponsored by: Johnson & Johnson K.K.

Main Session 1-4

14:00~15:30 Room B (Conference Room 1009)

Jugular Foramen/ Craniovertebral Junction Tumors: Choosing the Optimum Approach

Moderators: Jose A. Landeiro *(Brazil)*
Toshio Matsushima *(Japan)*
Zhen Wu *(China)*

MS1-4-1 **Posterolateral access to the foramen magnum - All problems solved?**
Keynote Helmut Bertalanffy
Department of Neurosurgery, INI Hannover, Germany

MS1-4-3 **Surgery for jugular foramen tumors**
Michihiro Kohno
Department of Neurosurgery, Tokyo Medical University, Japan

MS1-4-4 **Foramen magnum meningiomas: Choosing the best approach**
Jose A. Landeiro
Department of Neurosurgery, Universidade Federal Fluminense／Hospital Universitário Antônio Pedro, Brazil

MS1-4-5 **Foramen magnum meningiomas: Surgical results and risks predicting poor outcomes**
Zhen Wu
Department of Neurosurgery, Beijing Tiantan Hospital, Capital Medical University, China

MS1-4-6 **Endoscopic endonasal odontoidectomy and posterior stabilization: Preliminary experience with a single-step surgical procedure**
Filippo F. Angileri
Department of Biomedical and Dental Sciences and Morphofunctional Imaging, University of Messina, Italy

Proffered Paper 1-1

16:00~17:10 Room B (Conference Room 1009)

Management of CV juntion/Jugular Foramen Tumors

Moderators: Atul Goel *(India)*
Yasushi Shin *(Japan)*
Hun H. Park *(Korea)*

PP1-1-1 **Facial and lower cranial nerve preservation in jugular schwannoma surgery**
Zhaoyan Wang
Department of Otolaryngology – Head and Neck Surgery, Shanghai Jiaotong University, School of Medicine, China

PP1-1-2 **Function-preserving multi-modal treatment for jugular foramen meningiomas**
Seiro Ito
Department of Neurosurgery, Chiba Rosai Hospital, Japan

PP1-1-3 **Long-term functional and recurrence outcomes of jugular foramen schwannomas**
Da Li
Department of Neurosurgery, Beijing Tiantan Hospital, Capital Medical University, China

PP1-1-4 **Minimally invasive lateral approach and its extension for the craniocervical region**
Yasushi Shin
Department of Neurosurgery, Osaka Police Hospital, Japan

PP1-1-5 **Muscular stage dissection during far lateral approach and its transcondylar extention**
Akihito Sato
Department of Neurosurgery, Shioda Memorial Hospital, Japan／Department of Neurosurgery, Tokyo Medical and Dental University, Japan

PP1-1-6 **Vertebral artery transpostion for cranio-cervical junction tumors**
Hun H. Park
Department of Neurosurgery, Yonsei University, Korea

Special Session 1-3

17:20~18:20 Room B (Conference Room 1009)

Mayo Clinic and Bergen Group Collaborative Session: Predicting Long Term Quality of Life in Vestibular Schwannoma Patients

Moderators: Morten Lund-Johansen *(Norway)*
Michael J. Link *(USA)*

SS1-3-1 **Long-term headache disability in patients with sporadic vestibular schwannoma**
Colin L. Driscoll
Department of Otolaryngology – Head and Neck Surgery, Mayo Clinic, USA

SS1-3-2 **Self-perceived hearing and audiometry in VS patients: "Excellent" hearing is not all that excellent**
Morten Lund-Johansen
Bergen University Hospital, Norway

SS1-3-3 **Impact of facial nerve dysfunction on disability and quality of life in patients with vestibular schwannoma**
Oystein V. Tveiten
Department of Clinical Medicine, University of Bergen／Neurosurgical Department, Haukeland University Hospital, Norway

SS1-3-4 **What factors are the strongest predictors of quality of life outcome in patients with sporadic vestibular schwannoma?**
Matthew L. Carlson
Department of Otorhinolaryngology, Head and Neck Surgery, Mayo Clinic, USA

SS1-3-5 **Long-term quality of life in patients with sporadic vestibular schwannoma: A comparison between observation, microsurgery, radiosurgery and non-tumor controls**
Michael J. Link
Department of Neurosurgery, Mayo Clinic, USA

Evening Satellite 1

18:30~19:15 Room B (Conference Room 1009)

Brainlab Evening Satellite Session
The image guided skull base surgery

Moderator: Shingo Murakami *(Japan)*

ES1-1 **Who navigates the surgery?**
Yoshihiro Natori
Aso Iizuka Hospital, Japan

ES1-2 **Dolenc Approach, Neurosurgeon must not forget**
Kentaro Mori
Department of Neurosurgery, National Defense Medical College, Japan

Sponsored by: Brainlab K.K.

Concurrent Session 1-2

8:00~9:30 Room C (Conference Room 1008)

Innovative Skull Base Technologies for Aneurysm Surgery

Moderators: Basant K. Misra *(India)*
Amir R. Dehdashti *(USA)*
Isao Date *(Japan)*

CS1-2-1 **Microsurgery of giant aneurysms**
Keynote Basant K. Misra
Department of Neurosurgery, P. D. Hinduja National Hospital and Medical Research Centre, India

CS1-2-2 **Skull base approaches for vascular lesions**
Amir R. Dehdashti
Department of Neurosurgery, Northshore University Hospital, USA

CS1-2-3 **Analysis of supraorbital keyhole approach in groups of middle cerebral artery(MCA) aneurysms and anterior communicating artery(AcoA) aneurysms**
Chae H. Lee
Department of Neurosurgery, Ilsan Paik Hospital, College of Medicine, Inje University, Korea

CS1-2-4 **Skull base procedure and suction decompression method for large and giant paraclinoid aneurysm clipping**
Isao Date
Department of Neurosurgery, Okayama University Graduate School of Medicine, Japan

CS1-2-5 **Surgery for the intracranial aneurysms**
Hiroyuki Kinouchi
Department of Neurosurgery, University of Yamanashi, Japan

CS1-2-6 **Future of art of clipping of aneurysm?**
Ashwani K. Chaudhary
Department of Neurosurgery, Dayanand Medical College & Hospital, India

CS1-2-7 **Unruptured aneurysms - The real challenge**
Florian I. Stefan
Department of Neurosurgery, Iuliu Hatieganu University Of Medicine and Pharmacy, Romania

Concurrent Session 1-6

11:20~12:40 Room C (Conference Room 1008)

Contemporary Management of Sinonasal Malignancy

Moderators: Dennis H. Kraus *(USA)*
Ehab Hanna *(USA)*
Masashi Sugasawa *(Japan)*

CS1-6-1 **Management of sinonasal malignancy and anterior craniofacial resection**
Keynote Dennis H. Kraus
Northwell Health, Lenox Hill Hospital, NYHNI Otolaryngology, USA

CS1-6-2 **Oncologic outcomes of treatment of sinonasal cancers**
Ehab Y. Hanna
The University of Texas MD Anderson Cancer Center, USA

CS1-6-3 **Resection of malignant nasopharyngeal carcinomas in western countries then and now**
Luiz P. Kowalski
Department of Head and Neck Surgery, A. C. Camargo Cancer Center, Brazil

CS1-6-4 **Treatment selection for advanced paranasal cancer**
Masashi Sugasawa
Department of Head and Neck Surgery, International Medical Center, Saitama Medical University, Japan

CS1-6-5 **Sino-nasal malignancies involving anterior skull base: Approaches and our experience**
Rajan V. Sundaresan
Department of ENT-1, Head & Neck Skull Base Unit, Christian Medical College, India

CS1-6-6 **The role of human papilloma virus type 16 associated with malignant transformation of sinonasal squamous cell carcinoma**
Takenori Ogawa
Department of Otolaryngology - Head and Neck Surgery, Tohoku University Graduate School of Medicine, Japan

CS1-6-7 **Paranasal sinus and Skull base Malignance Management**
Gustavo F. Nogueira
Otorrinolaringologia, Cirurgia de Base de Crânio, Brazil

Luncheon Satellite 1-2

12:50~13:50 Room C (Conference Room 1008)

Leica Microsystems Luncheon Satellite Session

Moderator: Takanori Fukushima *(USA)*

Hearing preservation and complication avoidance in acoustic neuroma

LS1-2-1 **Facial nerve preservation techniques in large acoustic neuroma surgery**
Michihiro Kohno
Department of Neurosurgery, Tokyo Medical University, Tokyo, Japan

Sponsored by: Leica Microsystems

Concurrent Session 1-10

14:00~15:30 Room C (Conference Room 1008)

Functional Preservation in Vestibular Schwannoma

Moderators: Per Caye-Thomasen *(Denmark)*
Kazuhiro Hongo *(Japan)*
Hirofumi Nakatomi *(Japan)*

CS1-10-1 **Keynote** **CPA master neuromonitoring improves rate of hearing preservation after retrolabyrinthine vestibular schwannoma surgery**
Per Caye-Thomasen
University of Copenhagen／Department of Otolaryngology – Head and Neck Surgery and Audiology, Copenhagen University Hospital Rigshospitalet, Denmark

CS1-10-2 **Surgery for the vestibular schwannoma with intraoperative monitorings**
Kazuhiro Hongo
Department of Neurosurgery, Shinshu University School of Medicine, Japan

CS1-10-3 **The cutting edge of hearing preservation surgery with DNAP monitoring for acoustic neuroma**
Hidemi Miyazaki
Tokyo Women's Medical University Medical Center East, Department of Otorhinolaryngology,／Copenhagen University Hospital Rigshospitalet, Department of Otorhinolaryngology, Head & Neck Surgery／Keio University, Department of Otorhinolaryngology, Japan

CS1-10-4 **Hearing reconstruction in cases with neurofibromatosis type 2**
Akio Morita
Department of Neurosurgery, NIppon Medical School, Japan

CS1-10-5 **Improving functional preservation in acoustic neuroma surgery**
Improving functional preservation during acoustic neuroma surgery
Hirofumi Nakatomi
Department of Neurosurgery, University of Tokyo, Japan

CS1-10-6 **Planned partial resection followed by GKS for large VSs**
Yoshiyasu Iwai
Department of Neurosurgery, Osaka City General Hopspital, Japan

CS1-10-7 **Novel therapies to treat vestibular schwannomas**
James R. Tysome
ENT Department, Cambridge University Hospitals, UK

Proffered Paper 1-2

16:00~17:10 Room C (Conference Room 1008)

Craniofacial Reconstructive Surgery: Indication and Usefulness

Moderators: Kaneshige Sato *(Japan)*
Naotsugu Motomura *(Japan)*
Petr Vachata *(Czech Republic)*

PP1-2-1 **The usefulness of the musculo – pericranial flap in reconstruction of the skull base**
Hideaki Rikimaru
Kurume University School of Medicine, Japan

PP1-2-2 **Complications after the reconstruction of the anterior skull base with RAM**
Youkou Ohmaru
Kurume University, Japan

PP1-2-3 **Experience and adaptation of skull base reconstruction using free muscle flap**
Jun Suenaga
Department of Neurosurgery, Skull Base Tumor Center, Yokohama City University, Japan

PP1-2-4 **Our experience in skull base reconstruction with free flap transfer**
Hideki Yokogawa
Department of Plastic and Reconstructive Surgery, Saitama Medical University International Medical Center, Japan

PP1-2-5 **Indication of reconstructive surgery for middle skull base defects**
Kentaro Tanaka
Department of Plastic and Reconstructive Surgery, Graduate School of Medical Sciences, Tokyo Medical and Dental University, Japan

PP1-2-6 **Primary and secondary reconstruction of temporal muscle defect**
Petr Vachata
Masaryk Hospital, J. E. Purkinje University, Czech Republic／WFNS Skull Base Center Class A, Czech Republic

PP1-2-7 **Advantage of extended craniofacial resection for advanced malignant tumors of the nasal cavity and paranasal sinuses: Long-term outcome and surgical management**
Kiyohiko Sakata
Department of Neurosurgery, Kurume University, School of Medicine, Japan

Proffered Paper 1-7

17:20~18:20 Room C (Conference Room 1008)

Management of Malignant Tumors

Moderators: Produl Hazarika *(UAE)*
Kenya Kobayashi *(Japan)*
In S. Moon *(Korea)*

PP1-7-1 **Postoperative complications in skull base surgery for nasal and paranasal malignant tumors involving skull base**
Masanori Teshima
Department of Otolaryngology - Head and Neck Surgery, Kobe University Hospital, Japan

PP1-7-2 **Functional nerve preservation in parapharyngeal tumor surgery**
Kei Ijichi
Department of Otolaryngology-Head and Neck Surgery, Nagoya City University, Japan

PP1-7-3 **Spectrum analysis of parapharyngeal space tumors**
Produl Hazarika
Department of ENT, NMC Specialty Hospital, UAE

PP1-7-4 **Significance of surgery for head and neck sarcoma with skull base invasion**
Kenya Kobayashi
Department of Head and Neck Oncology, National Cancer Center Hospital, Japan

PP1-7-5 **Should "parotidectomy" be done with the surgery of external auditory canal cancer?**
In S. Moon
ENT, Yonsei University Colleage of Medicine, Korea

PP1-7-6 **Treatment strategy of intracranial hemangiopericytoma**
Jae-Sung Park
Department of Neurosurgery, Seoul St. Mary's Hospital, The Catholic University of Korea, Korea

Concurrent Session 1-3

8:00~9:30 Room D (Conference Room 1001)

Treatment Alternatives for Midline Tumors

Moderators: Luis Fernando M. Silva Jr. *(Brazil)*
Pavel Ivanov *(Russia)*
Takashi Tamiya *(Japan)*

CS1-3-1 **Keynote**
Handshake aprroach - A contribution to the management of intra - extracanial anterier skull base tumors
Luis Fernando M. Silva Jr.
Neurological Institute of Curitiba - INC, Brazil

CS1-3-2
Cranio-orbital pretemporal skull base approach to sellar/juxtasellar meningiomas
Kenan Arnautovic
Department of Neurosurgery, University of Tennessee Health Science Center, USA

CS1-3-3
Technical strategy and pitfall in surgery for juxtasellar skull base meningioma
Katsumi Sakata
Department of Neurosurgery, Yokohama City University Medical Center, Japan

CS1-3-4
Epidural approach for parasellar tumors
Takashi Tamiya
Department of Neurosurgery, Kagawa University Faculty of Medicine, Japan

CS1-3-5
Skull base midline tumors: Approaches selection and treatment strategy
Zhan Xue
Department of Neurosurgery, Beijing Tiantan Hospital, China

CS1-3-6
Cavernous sinus meningioma surgery again
Kazuhiko Fujitsu
Department of Neurosurgery, National Hospital Organization, Yokohama Medical Center, Japan

Concurrent Session 1-7

11:20~12:40 Room D (Conference Room 1001)

Collaboration for the Future: Newest Techniques

Moderators: Masayoshi Kobayashi *(Japan)*
Wuttipong Tirakotai *(Thailand)*
Vincent C. Cousins *(Australia)*

CS1-7-1 **Keynote**
Advantages of collaboration between otorhinolaryngologists and neurosurgeons in an endoscopic skull base surgery
Masayoshi Kobayashi
Mie University Graduate School of Medicine, Department of Otorhinolaryngology-Head and Neck Surgery, Japan

CS1-7-2
Hybrid surgery for anterior skull base tumor and how to repair anterior skull base
Shigeru Nishizawa
Department of Neurosurgery, University of Occupational and Enviromental Health, Japan

CS1-7-3
Multidisciplinary approach for skull base tumors with intra and extra cranial extension
Zhiqiang Yi
Department of Neurosurgery, Peking University First Hospital, China

CS1-7-4
Facial reanimation: A multidisciplinary team approach
Wuttipong Tirakotai
Prasat Neurological Institute, Thailand

CS1-7-5
Management of dysphagia and dysphonia following skull base surgery
Tetsuji Sanuki
Department of Otolaryngology-Head & Neck Surgery, Kumamoto University, Japan

CS1-7-6
The management of intracranial complications of ear disease
Vincent C. Cousins
The Alfred Hospital, Melbourne, Australia／Department of Surgery, Monash University, Australia

Luncheon Satellite 1-3

12:50~13:50 Room D (Conference Room 1001)

KARL STORZ GmbH & Co. KG Lucheon Satellite Session

Moderator: Isao Date *(Japan)*

LS1-3-1
Nikolai J. Hopf
ENDOMIN College

LS1-3-2
Robert Reisch
ENDOMIN College

Sponsored by: KARL STORZ GmbH & Co. KG

Concurrent Session 1-11

14:00~15:30 Room D (Conference Room 1001)

Anterior Skull Base Surgery: Where are We Now ?

Moderators: Emmanuel Jouanneau *(France)*
Arturo Solares *(USA)*
Antonio Gulino *(Italy)*

CS1-11-1 **Keynote** **Minimally invasive surgery for anterior and middle skull base tumors**
Emmanuel Jouanneau
Skull Base and Pituitary Center, Neurosurgical Department B／Hospices Civils de Lyon／University of Lyon, France

CS1-11-2 **Endoscopic anterior skull base surgery**
Shinichi Haruna
Department of ENT, Head and Neck Surgery, Dokkyo Medical University, Japan

CS1-11-3 **The endoscopic endonasal approach to anterior skull base diseases: Experience of skull base team at Verona University Hospital**
Antonio Gulino
Otolaryngology Department University of Verona, Italy

CS1-11-4 **Anterior skull base surgery using combined endonasal transglabellar approach**
Claude F. Litre
Department of Neurosurgery, University Reims, France

CS1-11-5 **The usefulness of the musculo-pericranial flaps in the recon struction of the skull base**
Kensuke Kiyokawa
Department of Plastic Reconstructive and Maxillofacial Surgery, Kurume University School of Medicine, Japan

CS1-11-6 **Treatment of craniofacial osteosarcoma: A multidisciplinary approach**
Marton S.S. Koning
Department of Neurology, Oestfold Hospital Trust, Norway

CS1-11-7 **Influence of the surgical approach on development of post-traumatic stress disorder symptoms in skull base surgery**
Ehab Shiban
Department of Neurosurgery, Technical University of Munich, Germany

Proffered Paper 1-3

16:00~17:10 Room D (Conference Room 1001)

Incorporation of Futuristic Simulation In Preoperative Evaluation

Moderators: Ian J. Witterick *(Canada)*
Amr N. Amr *(Germany)*
Masahiko Wanibuchi *(Japan)*

PP1-3-1 **" MeAV anatomie " a 3D display system for surgical simulation in cadaver study**
Masahiro Kameda
Department of Neurological Surgery, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Japan

PP1-3-2 **A combined three-dimensional bone and soft-tissue model for skull base surgery**
Naoki Nishio
Department of Otorhinolaryngology, Nagoya University Graduate School of Medicine, Japan

PP1-3-3 **Autostereoscopic 3D neuronavigation to the sella**
Amr N. Amr
Neurosurgery, University of Mainz, Germany

PP1-3-4 **Usefulness of preoperative 3D simulation for skull base surgery**
Keisuke Shirosaka
Department of Neurosurgery, Osaka City University, Japan

PP1-3-5 **3D simulation and neuronavigation for the surgery of paraclinoid aneurysm might contribute to the safe direct surgery and preserve the visual function**
Yutaka Mine
Department of Neurosurgery and Endovascular Surgery, Brain Nerve Center, Saiseikai Yokohamashi Tobu Hospital, Japan

PP1-3-6 **An innovative skull base surgical simulation using computer graphics by multimodal fusion imaging integrated time, space, and real**
Taichi Kin
Department of Neurosurgery, The University of Tokyo, Japan

PP1-3-7 **Skull base training by using a colored temporal bone model created by three-dimensional printing technology**
Masahiko Wanibuchi
Department of Neurosurgery, Sapporo Medical University School of Medicine, Japan

Proffered Paper 1-8

17:20~18:20 Room D (Conference Room 1001)

Significance of Facial Nerve Reconstruction/Facial Reanimation

Moderators: Mutsumi Okazaki *(Japan)*
Eduard Zverina *(Czech Republic)*
Jin Kim *(Korea)*

PP1-8-1 **Facial nerve reconstruction in vestibular schwannoma and lateral skull base surgery**
Eduard Zverina
Department of Otolaryngology and Head and Neck Surgery, 1st Faculty of Medicine, University Hospital Motol, Charles University Prague, Czech Republic／3rd Faculty of Medicine, University Hospital Kralovske Vinohrady, Charles University in Prague, Czech Republic

PP1-8-2 **Descending hypoglossal–facial anastomosis for facial reanimation: Results in 18 patients**
Jian-Tao Liang
Department of Neurosurgery, University of Capital Medical,China

PP1-8-3 **Different pathogenesis makes different aspects of facial movement in chronic facial paralysis**
Nam-Gyu Ryu
University of Inje, Korea

PP1-8-4 **Timing & recovery of delayed facial palsy after vestibular schwannoma resection**
Ryojo Akagami
Division of Neurosurgery, University of British Columbia, Canada

PP1-8-5 **Botulinum toxin injection of both sides of the face to treat post-paralytic facial synkinesis**
Jin Kim
Department of Otolaryngology, University of Inje, Korea

PP1-8-6 **Thread lifting for drooping face as a new approach for chronic facial paralysis**
Jin Kim
Department of Otolaryngology, University of Inje, Korea

Concurrent Session 1-4

8:00~9:30 Room E (Conference Room 1002)

Pediatric Skull Base Surgery: Overcoming the Barriers

Moderators: Ian J. Witterick *(Canada)*
Hajime Arai *(Japan)*
Say Ayala-Soriano *(UK)*

CS1-4-1 **Keynote**
Management of anterior cranial base meningoencephaloceles
Ian J. Witterick
University of Toronto, Department of Otolaryngology-Head & Neck Surgery, Canada

CS1-4-2
Congenital skull base lesions
Ken Kazahaya
Children's Hospital of Philadelphia, Division of Pediatric Otolaryngology, Unversity of Pennsylvania, USA

CS1-4-3
Bumpy calvarial deformity after cranial expansion
Shigeo Kyutoku
Department of Plastic Surgery, Nara City Hospital, Japan

CS1-4-4
Posterior cranial distraction for the treatment of craniosynostosis
Yuzo Komuro
Teikyo University, Japan

CS1-4-5
Anterior skull base endoscopic - assisted surgery of nonsyndromeic hemicoronal craniosynostosis in children
Albert Sufianov
FSBI "Federal Centre of Neurosurgery", Tyumen, Russia

CS1-4-6
Surgical treatment of pediatric sarcomas in the skull base
Seiji Kishimoto
Department of Head and Neck Surgery, Kameda Medical Center, Japan

CS1-4-7
Different onset pattern of pediatric blowout fractures with oculo-cardiac reflex
Masaaki Kosaka
Department of Plastic Surgery, International University of Health and Welfare Hospital, Japan

CS1-4-8
A robust, Non-invasive MRI tractography method to describe the location and length of the optic radiations in children for pre-surgical planning
Say Ayala-Soriano
University College London, Institute of Child health／Great Ormond Street Hospital／Department of Neurosurgery, Great Ormond Street Hospital／Department of Neuroimaging, Institute of Child Health, UK

Concurrent Session 1-8

11:20~12:40 Room E (Conference Room 1002)

Craniopharyngioma: Selection of the Optimum Approach

Moderators: Khaled M. El-Bahy *(Egypt)*
Kosaku Amano *(Japan)*
Mirko Scagnet *(Italy)*

CS1-8-1 **Keynote**
Laminaterminalis as a corridor for retrochiasmatic craniopharyngiomas
Khaled M. El-Bahy
Department of Neurosurgery, Ain Shams University, Egypt

CS1-8-2
Surgical management of craniopharyngiomas: Results in 287 cases (1985 - 2015)
Kuniaki Tanahashi
Department of Neurosurgery, Duke University, USA

CS1-8-3
Surgical strategy for craniopharyngioma
Kosaku Amano
Department of Neurosurgery, Tokyo Women's Medical University, Japan

CS1-8-4
Hybrid microscopic-endoscopic surgery for craniopharyngioma
Tomotsugu Ichikawa
Department of Neurosurgery, Okayama University Graduate School of Medicine, Japan

CS1-8-5 **Craniopharyngioma: Skull base endoscopic treatment in pediatric age**
Mirko Scagnet
Neurosurgery Unit, Neuroscience Department Anna Meyer Children's Hospital, Italy

CS1-8-6 **Endoscopic endonasal approach for suprasellar craniopharyngiomas**
Shou Xuefei
Department of Neurosurgery, Fudan University, China

Main Session 1-5

14:00~15:30 Room E (Conference Room 1002)

Angiofibroma Management: Endoscopically And Surgically

Moderators: Carl H. Snyderman *(USA)*
Bing Zhou *(China)*
Ken Kazahaya *(USA)*

MS1-5-1 **Endoscopic management of giant angiofibromas**
Keynote Carl H. Snyderman
Department of Otolaryngology, University of Pittsburgh Medical Center, USA

MS1-5-2 **Craniofacial surgery for advanced juvenile nasopharyngeal angiofibromas with intracranial extension**
Seiji Kishimoto
Department of Head and Neck Surgery, Kameda Medical Center, Japan

MS1-5-3 **Multidisciplinary surgical approach for advanced juvenile nasopharyngeal angiofibroma with skull base and cavernous sinus extension**
Yoshihisa Kawano
Department of Neurosurgery, Tokyo Medical and Dental University, Japan

MS1-5-4 **Endoscopic surgery for dealing with juvenile angiofibroma**
Bing Zhou
Department of Otolaryngology – Head and Neck Surgery, Beijing Tongren Hospital, Capital Medical University, China

MS1-5-5 **Management of juvenile nasopharyngeal angiofibroma**
Ken Kazahaya
Children's Hospital of Philadelphia, Division of Pediatric Otolaryngology／University of Pennsylvania, Department of Otorhinolarygnology / Head and Neck Surgery, USA

MS1-5-6 **Surgical principles for the treatment of intracranially extending juvenile angiofibroma**
Alok Thakar
Department of Otolaryngology – Head and Neck Surgery, All India Institute of Medical Sciences, India

MS1-5-7 **Endoscopic endonasal surgery for juvenile nasopharyngeal angiofibroma -key points for smooth tumor resection-**
Nobuyoshi Otori
Department of Otorhinolaryngology, Jikei University School of Medicine. Japan

Proffered Paper 1-4

16:10~17:10 Room E (Conference Room 1002)

Various Trending Endoscopic Techniques

Moderators: Kazunori Arita *(Japan)*
Filippo F. Angileri *(Italy)*
Dipak R. Nayak *(India)*

PP1-4-1 **Withdrawn**

PP1-4-2 **Short term subjective and objective analysis of functional outcome of modified endoscopic Lothrop's procedure – our experience**
Dipak R. Nayak
Department of ENT-HNS, K.M.C, Manipal University, India

PP1-4-3 **Surgical anatomy for endoscopic endonasal approach to the ventrolateral skull base lesions**
Kenichi Oyama
Teikyo University School of Medicine / Department of Neurosurgery, Pituitary & Endoscopic Surgery Center, Japan

PP1-4-4 **Management of large and giant pituitary adenomas with suprasellar extensions**
Junko Matsuyama
Neurosurgery, Southern Tohoku General Hospital, Japan

PP1-4-5 **Otolaryngologist's review of transnasal endoscopic skull base procedures**
Myint Tun
Department of Otorhinolaryngology-Head and Neck Surgery, University of Medicine 2, Myanmar

PP1-4-6 **Comparaison of endoscopic third ventriculostomy alone and combined with choroid plexus coagulation in infants younger than 1 year of age**
Khireddine A. Bouyoucef
Department of Neurosurgery - Frantz Fanon University Hospital of Blida, Algeria

PP1-4-7 **Development of a nasal corridor protection device**
Carl H. Snyderman
Department of Otolaryngology, University of Pittsburgh Medical Center, USA

Proffered Paper 1-9

17:20~18:20 Room E (Conference Room 1002)

Efficacy of Endoscopic Techniques for Tumors beyond Midline

Moderators: Kaoru Kurisu *(Japan)*
Regi Thomas *(India)*
Alessia Rubini *(Italy)*

PP1-9-1 **Endoscopic transpterygoid approach – an excellent surgical corridor**
Regi Thomas
Department of Otorhinolaryngology, Christian Medical College, India

PP1-9-2 **Endoscopic endonasal transpterygoid approach for non-vestibular schwannomas**
Hiroyoshi Akutsu
Department of Neurosurgery, University of Tsukuba, Japan

PP1-9-3 **The impact of vidian nerve anatomy on endoscopic middle fossa exposure**
Melissa M. Stamates
Section of Neurosurgery, University of Chicago, USA

PP1-9-4 **Transcanal endoscopic lateral skull base surgery: Initial experiences**
Alessia Rubini
Otolaryngology Department, University Hospital of Verona, Italy

PP1-9-5 **Endoscopic triportal approach for extracarnial trigeminal schwannomas**
Yasunori Fujimoto
Department of Neurosurgery, Osaka University Graduate School of Medicine, Japan

PP1-9-6 **Endoscopic endonasal approach to orbital lesions - our experience**
Ramaswamy Balakrishnan
ENT-Head & Neck Surgery, Kasturba Medical College, Manipal University, India

Special Session 1-1

8:00~9:30 Room F (Conference Room 801-2)

Instructional Course (Gruppo Otologico)

SS1-1-1 **Malignancies of the temporal bone**
Gianluca Piras
Gruppo Otologico, Italy

SS1-1-2 **Management of Non Vascular Tumors of the Jugular Foramen**
Sampath Chandra Prasad Rao
Gruppo Otologico, Italy

SS1-1-3 **Refinements in TLA for VS**
Alessandra Russo
Gruppo Otologico, Italy

SS1-1-4 **Management of ICA in lateral skull base surgery**
Mario Sanna
Gruppo Otologico, Italy

Special Session 1-2

11:20~12:10 Room F (Conference Room 801-2)

Gruppo Otologico Session

SS1-2-1 **Management of petrous bone cholesteatomas**
Gianluca Piras
Gruppo Otologico, Italy

SS1-2-2 **The infratemporal fossa aproaches: Evolution and indications**
Sampath Chandra Prasad Rao
Gruppo Otologico, Italy

SS1-2-3 **Management of tumors of the facial nerve**
Alessandra Russo
Gruppo Otologico, Italy

SS1-2-4 **Management of lesions of the petrous apex**
Mario Sanna
Gruppo Otologico, Italy

Concurrent Session 1-9

12:10~12:40 Room F (Conference Room 801-2)

Microvascular Decompression

Moderators: Toshiki Yoshimine *(Japan)*
Seung H. Lee *(Korea)*

CS1-9-1 **Microvascular decompression of trigeminal nerve root in patients with trigeminal neuralgia under 75 years**
Jamil Rzaev
Department of Neurosurgery, Federal Center of Neurosurgery, Russia

CS1-9-2 **Transtubular microvascular decompression for trigeminal neuralgia**
Alexander I. Evins
Department of Neurosurgery, Weill Cornell Medical College, USA

CS1-9-3 **Analysis of relationship between abnormal responses of intraoperative brainstem auditory evoked potential changes during microvascular decompression and immediate postoperative hearing complications**
Seung Hwan Lee
Department of Neurosurgery, Kyung Hee University, Korea

Concurrent Session 1-12

14:00~15:30 Room F (Conference Room 801-2)

Cutting Edge Approaches for Aneurysm Surgery

Moderators: Young-Min Han *(Korea)*
Yoshiaki Shiokawa *(Japan)*
Hidehito Kimura *(Japan)*

CS1-12-1 **Clinical usefulness of the orbito-pterional approach in aneurysm surgery**
Keynote
Young-Min Han
Incheon St. Mary's Hospital, The Catholic University of Korea, Korea

CS1-12-2 **Surgery for the paraclinoid aneurysms**
Shinsuke Irie
Department of Neurosurgery,Kushiro Kojinkai Memorial Hospital, Japan

CS1-12-3 **Technical considerations for safer and reliable direct surgery for paraclinoid aneurysms**
Hidehito Kimura
Department of Neurosurgery, Kobe University Graduate School of Medicine, Japan

CS1-12-4 **Surgical management of ophthalmic aneurysm in solo neurosurgical practice**
Hotetsu Shimamoto
Shimamoto Neurosurgical Clinic, Japan

CS1-12-5 **A case of giant thrombosed vertebral artery aneurysm successfully treated with combined transpetrosal approach**
Hiroshi Takasuna
Department of Neurosurgery, St. Marianna University, School of Medicine, Japan

CS1-12-6 **Transcondylar approach for large VA-PICA aneurysm**
Masahiko Wanibuchi
Department of Neurosurgery, Sapporo Medical University School of Medicine, Japan

Proffered Paper 1-5

16:00~17:10 Room F (Conference Room 801-2)

Petroclival Lesions : Advanced Treatment Management

Moderators: Yuichiro Tanaka *(Japan)*
Christian Matula *(Austria)*
Young-Min Han *(Korea)*

PP1-5-1 **Preservation of middle cerebral vein during the anterior transpetrosal approach**
Shunsuke Shibao
Department of Neurosurgery, Keio University School of Medicine, Japan

PP1-5-2 **Preoperative evaluation of enlarged occipital and marginal sinuses**
Shusaku Noro
Department of Neurosurgery, Nakamura Memorial Hospital, Japan

PP1-5-3 **Evaluation of bony structure around the petrous apex by 3D-CTA**
Keiji Hara
Department of Neurosurgery, Nakamura Memorial Hospital, Japan

PP1-5-4 **Technique nuance in surgical management of petroclival meningiomas**
Xinru Xiao
Department of Neurosurgery, Beijinng Tiantan Hospital, Capital Medical University, China

PP1-5-5 **Extension of the retrosigmoid approach to large cerebellopontine angle tumors**
Young-Min Han
Department of Neurosurgery, Incheon St. Mary's Hospital, The Catholic University of Korea, Korea

PP1-5-6 **Retrosigmoid suprajugular approach to jugular foramen neuromas**
Ken Matsushima
Department of Neurosurgery, Tokyo Medical University, Japan／Department of Neurological Surgery, University of Florida, USA

Special Session 1-4

17:20~18:20 Room F (Conference Room 801-2)

3D Endoscopy Session

Moderaters: Naokatsu Saeki *(Japan)*
Ashish Suri *(India)*

SS1-4-1 **3D endoscopy to the sella and beyond**
Alessandro Ducati
Section of Neurosurgery, University of Torino, Itary

SS1-4-2 **3D endoscopic transnasal transsphenoidal pituitary surgery**
Albert Sufianov
Department of Neurosurgery, Federal Center of Neurosurgery, Russia

SS1-4-3 **3D endoscopic surgery**
Jörg Schipper
Department of Otorhinolaryngology, University Hospital Düsseldorf, Germany

SS1-4-4 **3D endoscopic surgery**
Diego Mazzatenta
Centre of Pituitary and Skullbase Endoscopic Surgery, Institute of Neurological Sciences of Bolonga, Italy

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