North American Skull Base Society
23rd ANNUAL MEETING
The Complexity of Measuring True Quality in Skull Base Surgery
February 15-17, 2013 with Pre-Meeting Practical Dissection Course, February 13-14, 2013

THE DORAL HOTEL
MIAMI, FLORIDA

PRESIDENT: Carl Heilman, MD

SCIENTIFIC PROGRAM CHAIRS: Michael Chicoine, MD, Siviero Agazzi, MD, Nik Blevins, MD, & Mark Varvares, MD

PRACTICAL COURSE DISSECTION WORKSHOP CHAIRS: Vijay K. Anand, MD, Carlos David, MD, James Evans, MD, & Sandeep Samant, MD

WWW.NASBS.ORG
Welcome to the 2013 North American Skull Base Society Annual Meeting at the beautiful Doral Hotel in Miami, Florida. Michael Chicoine, MD, the Annual Meeting Chairman, has put together a spectacular scientific and social program. The theme of the 2013 annual meeting is “The Complexity of Measuring True Quality in Skull Base Surgery”. As physicians, we are increasingly being evaluated by hospital discharge billing information, on-line web sites, and patient satisfaction surveys. During the plenary sessions, we will delve into the complexity of determining true quality on multiple levels.

Our Keynote Speaker is Dr. Vinod Sahney. Dr. Sahney is a Senior Fellow at the Institute for Healthcare Improvement. He will speak on “Reliability: The Next Challenge in Health Care Quality Improvement”. Also during the plenary sessions, quality surgery will be debated regarding endoscopic endonasal vs transcranial microsurgery for anterior skull base meningiomas as well as sinonasal cancers. Fred Barker, MD, and Carl Snyderman, MD, will present their views on how quality in surgery is being determined.

The honored guests this year include two past presidents of the NASBS, Dr. Jon Robertson and Dr. Hugh Curtin. Dr. Robertson is also a past president of the American Association of Neurological Surgeons, the American Board of Neurological Surgeons and the Society of University Neurosurgeons. Dr. Curtin is a Professor of Radiology at Harvard Medical School and the Chairman of Radiology at the Massachusetts Eye and Ear Infirmary. The Plenary session will once again feature Skull Base Jeopardy with emcee John Golfinos back by popular demand.

As a new feature this year, the top 6 submitted abstracts will be presented in the Plenary Sessions followed by a comment from a senior NASBS member. The meeting will also feature a series of Breakfast Seminars on “How I Do It”, as well as numerous Concurrent Topic Sessions and Abstract Presentations.

The NASBS website, under the direction of Carlos David, MD, is now presenting a skull base “Case of the Month”. The first case has been posted, so please log on and indicate how you would manage this challenging case. We have also begun work on developing a skull base case registry, under the leadership of Ted Schwartz, MD. We hope to build a large database to allow analysis of outcomes on uncommon skull base pathologies.

The Executive Committee of the NASBS welcomes you to Miami and hopes you find this meeting extremely educational and stimulating.

Carl B. Heilman MD, President, NASBS

“The Executive Committee of the NASBS welcomes you to Miami and hopes you find this meeting extremely educational and stimulating.”
LEARNING OBJECTIVES

At the conclusion of this activity, participants should be able to:
• Explain the most recent recommendations for management of skull base pathologies.
• Express knowledge of the technical aspects of the surgical and radiosurgical management of these pathologies as learned from the experience of leaders in the field.
• Describe the 3D anatomy of the skull base and neurovascular structures pertaining to the management of skull base pathologies.
• List and apply the fundamentals of quality measurement and their specific application to skull base pathologies.
• Express knowledge of recent developments in the management of skull base pathologies as presented orally before final peer review publication and provide critical feedback to the presenter and to the audience.

WHO SHOULD ATTEND

The NASBS meeting is open to NASBS members and Non-members.

TARGET AUDIENCE

• Head and neck surgeons, neurosurgeons, reconstructive surgeons, radiotherapists, radiologists, medical oncologists, physical rehabilitation physicians, ophthalmologists, neurologists, maxillofacial surgeons, maxillofacial prosthodontists and endocrinologists
• Targeted allied health professionals will include physical therapists, oncology nurses, oral health specialists, occupational therapists, speech and language pathologists, optometrists, psychologists and anaplasologists.

ACCREDITATION STATEMENT

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of the American College of Surgeons and the North American Skull Base Society. The American College Surgeons is accredited by the ACCME to provide continuing medical education for physicians.

AMA PRA CATEGORY 1 CREDITS™

The American College of Surgeons designates this live activity for a maximum of 20.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

SAVE THE DATES!

Mark your calendars for these upcoming NASBS Meetings and Workshops.

Summer Resident and Fellows Practical Dissection Workshop
July 26-28, 2013, LSU Health Sciences Center, New Orleans, LA

24th NASBS Annual Meeting
February 14-16, 2014
Pre-Meeting Practical Dissection Workshop February 12-13, 2014

www.NASBS.org
PAST PRESIDENTS
1990  Paul J. Donald, MD
1991  Laligam N. Sekhar, MD
1992  Ivo P. Janecka, MD
1993  Peter C. Smith, MD, PhD
1994  Albert L. Rhoton, Jr., MD
1995  Hugh Curtin, MD
1996  Derald E. Brackmann, MD
1997  Ossama Al-Mefty, MD
1998  Steven A. Newman, MD
1999  John P. Leonetti, MD
2000  Robert F. Spetzler, MD
2001  Ian T. Jackson, MD
2002  Vinod K. Anand, MD
2003  Jon H. Robertson, MD
2004  Jatin Shah, MD
2005  Patrick J. Cullane, MD
2006  Anil Nanda, MD
2007  Guy J. Petruzzelli, MD
2008  Franco DeMonte, MD
2009  Daniel Nuss, MD
2011  Peter Neligan, MD
2012  Dennis Kraus, MD

WHY JOIN NASBS?
Membership is based on an interest in skull base surgery and related sciences. Individuals with backgrounds in neurosurgery, otolaryngology–head and neck surgery, radiology, neuroradiology, otology, neurotology, plastic and reconstructive surgery, and others interested in skull base diseases are welcome to apply.

MEMBERSHIP BENEFITS
- **Scientific Journal**: Members will receive the official journal of the society, *Journal of Neurological Skull Base Surgery*, a quarterly publication that contains peer reviewed original articles, review articles, and position papers. It will also present news and information on an international scope to keep members aware of recent and upcoming events, activities, and evolving developments in skull base surgery.
- **Continuing Medical Education**: Members will receive listings of continuing medical educational opportunities in skull base surgery, as well as scientific courses sponsored by NASBS and will receive reduced registration fees for national scientific meetings.
- **Membership Directory**: An annual directory of the membership will be provided.
- **NASBS Website Access**: Members will have access to Member-Only discussion areas on the Society’s website.

Please visit [www.nasbs.org/about/membershipinfo.php](http://www.nasbs.org/about/membershipinfo.php) for more information or email membership@nasbs.org.

REGISTRATION HOURS
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SPEAKER PREP HOURS
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EXHIBIT HALL/POSTER HOURS
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<td>5:30 pm – 7:00 pm  Exhibit Hall Open (Reception)</td>
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<td>12:00 pm – 1:00 pm Lunch for Non Members in Exhibit Hall</td>
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<td>3:30 pm – 4:00 pm  Break in Exhibit Hall</td>
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Every year, the North American Skull Base Society recognizes individuals who have played an instrumental role in skull base surgery. This year, the NASBS would like to recognize Dr. Jon Robertson and Dr. Hugh Curtin. They have been innovators in skull base surgery and are teachers to colleagues, residents and students around the world.

**JON H. ROBERTSON, MD**

Dr. Jon Hobson Robertson attended Southwestern College (now Rhodes) in Memphis, Tennessee, receiving his BA degree in 1968. He graduated from the University of Tennessee Medical School in 1971. After completing an internship and a year of General Surgery at the City Of Memphis Hospitals, he worked as an ER physician and in general practice for several years before beginning his residency in Neurosurgery in 1975 at the University of Tennessee Center for the Health Sciences.

Immediately following completion of his residency training in 1979, Dr. Robertson became a member of the Semmes-Murphey Clinic and Assistant Professor in the Department of Neurosurgery at the University of Tennessee Center for Health Sciences. He was promoted to Associate Professor in 1984, served as Interim Chairman 1995-1996, and assumed the Chairmanship of the Department of Neurosurgery at the University of Tennessee in 1997. He retired from the University of Tennessee in July, 2011. Dr. Robertson has continued a limited practice with the Semmes-Murphey Clinic, and enjoyed his role as a senior faculty member in the UT Neurosurgical Department.

Dr. Robertson has been active in numerous national and local neurosurgical organizations. He was President of the North American Skull Base Society in 2002, President of the Society of University Neurosurgeons in 2005, President of the American Association of Neurological Surgeons in 2008, and served as a Director on the American Board of Neurological Surgeons 2000-2006. Over the past two decades he has served on the Board of Directors of Semmes-Murphey Neurologic & Spine Institute and the Medical Education & Research Institute (MERI) in Memphis, Tennessee.

In addition to his volunteer and academic activities, Dr. Robertson has maintained an active practice in neurological surgery with the Semmes-Murphey Neurologic & Spine Institute for the past 33 years. His clinical practice has focused on the surgical management of tumors affecting the cranial base of the skull. Parents of five children and grandparents of twelve, Dr. Robertson and his wife, Carol Ann, have been married for 45 years. Dr. Robertson enjoys fly-fishing and spending time with his family.

**HUGH D. CURTIN, MD, FACR**

Hugh D. Curtin is a radiologist specializing in imaging of the head, neck and skull base. He is Chair of Radiology at the Massachusetts Eye and Ear Infirmary and Professor of Radiology at the Harvard Medical School. Born and raised in Canton, New York, he attended St. Michael’s College at the University of Toronto. After graduating from Upstate Medical University in Syracuse, he did a radiology residency at the University of Pittsburgh. He spent a year at the Ostra Sjukhuset in Goteborg, Sweden learning pediatric radiology and angiography. Then he returned to Pittsburgh. There he began doing head and neck radiology not really because he was driven by a specific interest but because nobody else wanted to do it and he was the most junior attending radiologist. Dr. Bertram Girdany, the Chair of Radiology at the University of Pittsburgh, asked Dr. Curtin to oversee the new radiology department at the Pittsburgh Eye and Ear Hospital on an interim basis. In preparation, Dr. Curtin went to study at the Fondation Ophthalmologique Adolphe de Rothschild in Paris with Dr. Jacqueline Vignaud, one of world’s leaders in temporal bone imaging.

Back in Pittsburgh, Dr. Curtin worked closely with otolaryngologists and skull base surgeons. Dr. Curtin credits his interactions with Dr. Eugene Myers and Dr. Jonas Johnson with helping him to learn head and neck imaging. The Center for Cranial Base Surgery brought Drs. Ivo Janecka and Laligam Sekhar to Pittsburgh with further opportunities for imaging exploration of the skull base. Because of this interaction, Dr. Curtin was one of the founding members of the North American Skull Base Society. He was the President of the Society in 1995 and organized the meeting that year in Naples, Florida. Dr. Curtin moved to Boston in 1995 to become Chair of Radiology at the Massachusetts Eye and Ear Infirmary.

Dr. Curtin has served on the editorial board of the journal Skull Base and numerous other journals. He has authored or coauthored over 150 peer reviewed papers and lectured extensively nationally and internationally. Much of his effort has focused on publication of the textbook Head and Neck Imaging with Dr. Peter Som. The fifth edition has just been published. Dr. Curtin was awarded the Gold Medal of the American Society of Head and Neck Radiology (ASHNR) and the Presidential Citation of the American Academy of Otolaryngology- Head and Neck Surgery. He has served as President of the ASHNR as well as the North American Skull Base Society. Dr. Curtin is particularly proud of having received the teacher of the year award from the Massachusetts General Hospital radiology residents and also the teaching award from the Otolaryngology residents of Harvard Medical School. He was recently honored as “Distinguished Alumnus” by Upstate Medical University.

In Pittsburgh, Dr. Curtin met and married Carole Livingston. They have been married just over thirty years and currently live just west of Boston. Carole and Hugh have three children, Matthew, Eric and Rachel who are the pride and joy of their lives.
2013 MEETING FACULTY

Siviero Agazzi, MD, MBA
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Shreveport, LA, USA

Chiazo Amene, MD
LSU HSC Shreveport
Shreveport, LA, USA

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North American Skull Base Society 23rd Annual Meeting
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Hugh D. Curtin, MD  
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Tampa, FL, USA

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Marlen Hansen, MD  
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Bruce H. Haughey, MD  
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<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
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<tbody>
<tr>
<td>Ammar H. Hawasli, MD, PhD</td>
<td>Washington University School of Medicine St. Louis, MO, USA</td>
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<tr>
<td>Carl B. Heilman, MD</td>
<td>Tufts Medical Center Boston, MA, USA</td>
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<tr>
<td>Edward Hepworth, MD</td>
<td>Colorado Sinus Institute Denver, CO, USA</td>
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<td>Marc W. Herr, MD</td>
<td>Massachusetts General Hospital and Massachusetts Eye and Ear Infirmary</td>
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<td>Thomas S. Higgins, MD, MSPH</td>
<td>Kentuckiana ENT/Johns Hopkins University Louisville, KY, USA</td>
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<td>Peleg M. Horowitz, MD, PhD</td>
<td>Brigham and Women’s Hospital, Children’s Hospital Boston, Dana-Farber Cancer</td>
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<td>Institute, Harvard Medical School, and Broad Institute of MIT and Harvard</td>
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<td></td>
<td>Boston, MA, USA</td>
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<td>Qasim Husain, BS</td>
<td>University of Medicine and Dentistry of New Jersey – New Jersey Medical School</td>
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<td>Edison, NJ, USA</td>
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<td>Peter H. Hwang, MD</td>
<td>Stanford School of Medicine Stanford, CA, USA</td>
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<td>Gregory J. Imbarrato, DO</td>
<td>Geisinger Medical Center Bloomington, PA, USA</td>
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<td>Masaru Ishii, MD, PhD</td>
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<td>John A. Jane, Jr., MD</td>
<td>University of Virginia Health System Charlottesville, VA, USA</td>
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<td>Taro Kaibara, MD</td>
<td>Barrow Neurosurgical Assoc Ltd Phoenix, AZ, USA</td>
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<td>Yashar Kalani, MD, PhD</td>
<td>Barrow Neurological Institute Phoenix, AZ, USA</td>
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<td>University of South Florida Tampa, FL, USA</td>
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<td>John Wayne Cancer Institute at Saint John’s Health Center Santa Monica, CA,</td>
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<td>Osaama H. Khan, MD, MSc</td>
<td>University Health Network, Toronto Western Hospital, University of Toronto,</td>
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<td>Ontario, Canada, Mount Sinai Hospital, University of Toronto, Ontario,</td>
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<td>Canada Toronto, ON, Canada</td>
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<td>Albert Kim, MD</td>
<td>Washington University St. Louis, MO, USA</td>
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<td>Grace G. Kim, MD</td>
<td>University of North Carolina Hospitals – Chapel Hill Chapel Hill, NC, USA</td>
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<td>Young II Kim</td>
<td>Department of Neurosurgery, Seoul St. Mary’s Hospital, The Catholic University</td>
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<td>of Korea Seoul, Korea Seoul, South Korea</td>
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<td>Cristine N Klatt-Cromwell, MD</td>
<td>University of North Carolina at Chapel Hill Chapel Hill, NC, USA</td>
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<tr>
<td>Maria Koutouroussiou, MD</td>
<td>Center for Cranial Base Surgery University of Pittsburgh Medical Center</td>
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<td>Pittsburgh, PA, USA</td>
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<td>Dennis H. Kraus, MD</td>
<td>Lenox Hill Hospital New York, NY, USA</td>
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<td>Boris Krischek, MD, PhD</td>
<td>University Health Network Toronto, ON, Canada Kingston, Canada</td>
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<td>Ali F. Krieger, MD</td>
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<td>Tufts New England Medical Center Boston, MA, USA</td>
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<td>Michael Kupferman, MD</td>
<td>The University of Texas MD Anderson Cancer Center Houston, TX, USA</td>
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<td>Tariq T. Lamki, MD</td>
<td>The Ohio State University Columbus, OH, USA</td>
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<td>Edward Laws, MD</td>
<td>Dana-Farber Cancer Institute Boston, MA, USA</td>
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<td>Neurological Institute, Cleveland Clinic Cleveland, OH, USA</td>
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<td>John P. Leonetti, MD</td>
<td>Loyola University Medical Center Maywood, IL, USA</td>
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<td>Carol M. Lewis, MD</td>
<td>University of Texas MD Anderson Cancer Center Houston, TX, USA</td>
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<td>Yan Michael Li, MD, PhD</td>
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<td>Serge P. Tewfik, MD, MSc, FRCSC</td>
<td>McGill University Health Centre &amp; Jewish General Hospital</td>
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<td>Christopher F. Thompson, MD</td>
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On behalf of the North American Skull Base Society, the following awards were given this year:

**BEST PAPER BY A MEDICAL STUDENT**

“Prognostic Factors for Tumor Control Following Surgical Resection and Adjuvant Radiation Therapy for Intracranial Chordomas”

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Los Angeles, CA, USA

David T. Tse, MD
Bascom Palmer Eye Institute
Miami, FL, USA

Jaime Joseph Van Gompel, MD
Mayo Clinic
Rochester, MN, USA

Harry Van Loveren, MD
University of South Florida
Tampa, FL, USA

Mark A. Varvares, MD
St Louis University Med Center
St. Louis, MO, USA

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University of Pittsburgh Medical Center
Pittsburgh, PA, USA

Allan D. Vescan, MD
Mt Sinai Hospital University
Toronto, ON, Canada

Anthony C. Wang, MD
University of Michigan
Ann Arbor, MI, USA

Eric W. Wang, MD
University of Pittsburgh
Pittsburgh, PA, USA

Takafumi Wataya, MD, PhD
Toronto Western Hospital, University Health Network
Toronto, Canada

Kyle Weaver, MD
Vanderbilt University
Nashville, TN, USA

Randal S. Weber, MD
UT MD Anderson Cancer Center
Houston, TX, USA

Richard O. Wein, MD
Tufts Medical Center
Boston, MA, USA

Richard W. Williamson, MD
Barrow Neurological Institute
Phoenix, AZ, USA

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Winston-Salem, NC, USA

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University of Miami
Miami, FL, USA

Yiqun Wu, Professor
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Shanghai, China

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Weill Cornell Medical College
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Durham, NC, USA

Christian Zweifel, MD
Neurosurgery Division, Toronto Western Hospital; Departments of Endocrinology and Neurosurgery, University Hospital Basel and Aarau
Toronto, ON, Canada

**BEST CLINICAL PAPER BY A RESIDENT**

“Modifications to the Endoscopic Approach for Anterior Skull Base Lesions Improve Postoperative Sinonasal Symptoms”

Christopher Thompson, MD
University of California Los Angeles
Los Angeles, CA, USA

**BEST BASIC SCIENCE PAPER BY A RESIDENT**

“FLLL32 STAT3 Inhibition is Effective Against Chordoma in Vitro”

Anthony Wang, MD
University of Michigan
Ann Arbor, MI, USA
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*Faculty that are not listed below, have nothing to disclose*

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EMAIL: info.us@inomed.com
www.inomed.com

Inomed North America Inc. is a medical technology company developing systems for intraoperative neuromonitoring (IONM), functional neurosurgery, pain treatment and neurological diagnostics. With 20 years of innovation, and development and manufacturing in Germany, we deliver quality products to customers in all major global markets. Our products are the result of decades of experience, clinical tests, and secure trials at some of the most prestigious centers in Germany and the European Union. This formula for success ensures that our customers and their patients benefit from the best possible treatment options.
Integra LifeSciences, a world leader in medical devices, is dedicated to limiting uncertainty for surgeons so they can concentrate on providing the best patient care. Integra offers a vast portfolio of implants, devices, instruments and systems used in neurosurgery and neuro critical care.

**KARL STORZ Endoscopy-America, Inc.**

2151 E. Grand Avenue
El Segundo, CA 90245
PHONE: 800-421-0837
www.ksea.com

KARL STORZ is a leader in endoscopy equipment and instrumentation for a range of specialties, including otorhinolaryngology and neurosurgery. We set industry standards for specialized instrumentation for neurosurgery solutions. Our otorhinolaryngology products offer solutions for use both in hospitals and office-based practices, including shorter telescopes and brilliant white light sources.

**Kelyniam Global, Inc.**

97 River Road
Canton, CT 06019
PHONE: 800-280-8192
FAX: 501-641-2000
www.kelyniam.com

KELYNIAM’s PEEK Customized Skull and Craniofacial Implants are designed and manufactured for each individual patient to correct or replace bony defects. Streamlined CAD/CAM design and manufacturing techniques enable KELYNIAM to deliver precision fit, patient specific implants to surgeons in as little as 24 hours!

**KLS Martin**

P.O. Box 16369
Jacksonville, FL 32245
PHONE: 904-641-7746
FAX: 904-641-7378
www.klsmartin.com

KLS Martin is a company dedicated to providing innovative medical devices and power systems for craniomaxillofacial surgery. The company’s rich history began with surgical instrument production in Tuttingen, Germany in 1896 and continued with miniplate production in 1975. KLS Martin has advanced the capabilities of distraction osteogenesis, and revolutionized resorbable fixation with the SonicWeld Rx system.

**Medtronic Surgical Technologies**

6743 Southpoint Drive North
Jacksonville, FL 32216
PHONE: 904-296-9600
FAX: 904-281-0966
www.medtronicENT.com

Medtronic ENT is a leading developer, manufacturer and marketer of surgical products for use by ENT specialists. Medtronic ENT markets over 5,000 surgical products worldwide addressing the major ENT subspecialties – Sinus, Rhinology, Laryngology, Otology, Pediatric ENT and Image Guided Surgery.

**Mizuho America, Inc.**

30057 Ahern Avenue
Union City, CA 94587
PHONE: 510-324-4500
FAX: 510-324-4545
www.mizuho.com

Mizuho America, Inc. is a cerebrovascular focused instrumentation company whose main products include Sugita T2 Aneurysm Clips, 7200B Operating Table, Micro-Instruments, Kelly Endonasal Set, Lawton Neurovascular Bypass Set, Evans Rotatable Set, Day-Bailes Suction Tubes, and Intracranial & Vascular Dopplers. When it’s Microsurgery, it’s Mizuho.

**NICO Corporation**

9190 Priority Way West Drive, Suite 203
Indianapolis, IN 46240
PHONE: 317-660-7118, ext. 118
FAX: 317-682-0305
www.niconeuro.com

NICO Corporation is progressing minimally invasive corridor neurosurgery by creating instruments that allow for safe tumor and cyst removal through smaller openings. This provides neurosurgeons opportunities for less brain retraction, shorter total resection time, and precise control to achieve a more effective gross total resection. NICO’s products offer the potential for less surgical trauma for patients, shorter hospital stays, better clinical outcomes, and improved clinical experiences.
OsteoMed

3885 Arapaho Road
Addison, TX  75001
PHONE: 972-677-4748
FAX: 972-677-4731
www.osteomed.com

OsteoMed is a global and innovative leader in the development and manufacturing of specialty surgical implants for the neurosurgical market. The OsteoMed philosophy focuses on improved patient outcomes through anatomically friendly technology, and designs created through critical input from surgeons for streamlined surgical techniques.

Piezosurgery Incorporated

850 Michigan Avenue
Columbus, OH  43215
PHONE: 614-459-4922
FAX: 614-459-4981
www.piezosurgery.us

Piezosurgery® osseous surgical devices offer surgeons the ability to safely and precisely cut bone with virtually no risk of harming adjacent delicate anatomy such as: dura matter, vessels, nerves or membranes. These patented osseous surgical devices are manufactured in Italy by Mectron Medical Technology and exclusively distributed in the United States and Canada by Piezosurgery Incorporated. Piezosurgery® osseous surgical devices are used worldwide by Medical, Dental and Veterinary surgeonsfor both complex and everyday applications.

Rose Micro Solutions

4105 Seneca Street
West Seneca, NY  14224
PHONE: 716-608-0009
FAX: 716-608-0006
www.rosemicrosolutions.com

Rose Micro Solutions sells High Quality Optical Loupes and LED Lights for Less! Our Loupes start at $279.00. We are a “Family” Business consisting of 4 Brothers. We named the company after our Mother “ROSE”.

Stryker

750 Trade Centre Way, Suite 200
Portage, MI  49002
PHONE: 877-534-2464
FAX: 877-648-7114
www.stryker.com

Stryker is one of the world’s leading medical technology companies and is dedicated to helping healthcare professionals perform their jobs more efficiently while enhancing patient care. The company offers a diverse array of innovative medical technologies including reconstructive implants, medical and surgical equipment, and neurotechnology and spine products to help people lead more active and more satisfying lives.

Synthes Anspach

4500 Riverside Drive
Palm Beach Gardens, FL  33410
PHONE: 561-494-3651
FAX: 561-627-1265
www.anspach.com

Synthes Anspach manufactures high performance instrument systems for neurosurgery, neurotology, spinal procedures, and otolaryngology. Our power systems provide consistent power and smooth performance for even the most demanding applications. The advanced design of our instruments assures unparalleled performance and reliability, while allowing effortless assembly, meeting surgeon and staff needs.

Synthes CMF

1301 Goshen Parkway
West Chester, PA  19380
PHONE: 610-719-6500
FAX: 610-719-6533
www.synthes.com

Synthes is a leading global medical device company. We develop, produce and market instruments, implants and biomaterials for the surgical fixation, correction and regeneration of the human skeleton and its soft tissues. Synthes CMF also supports North American AO ASIF Continuing Education courses.

Visionsense Corp.

1270 Avenue of the Americas, Suite 302
New York, NY  10020
PHONE: 845-680-0233
FAX: 845-688-0234
www.visionsense.com

Visionsense develops novel visualization solutions that bring natural stereoscopic sight to minimally invasive surgery (MIS). With advanced sensor technology and proprietary software, the Visionsense system delivers depth perception, high resolution images and maneuvering flexibility through the smallest access diameters.

The Visionsense VSII solution is based on a single, miniature stereoscopic (3D) sensor that imitates an insect’s compound eye. With stereo vision capabilities, surgeons gain enhanced tissue understanding, improved hand eye coordination and the confidence to use advanced (articulating) surgical tools, thus opening the door for new, unique surgical developments.
KEYNOTE SPEAKER: Vinod Sahney, PhD

Dr. Sahney was Senior Vice President and Chief Strategy Office at Blue Cross Blue Shield of Massachusetts. Prior to joining the company, he served as Senior Vice President at Henry Ford Health System for 25 years, including responsibilities for Strategic Planning, Marketing, Government Relations, Public Relations, Community Affairs, Quality Resource Group, Special Events, Management Services, Information Services, New Enterprise Development Corporation, the Center for Health Services Research and the Center for Health Promotion and Disease Prevention.

Dr. Sahney has been elected to both the Institute of Medicine and the National Academy of Engineering. He has served on the faculty of Harvard University for the past 31 years and has been a faculty member for Harvard’s Executive Program in Health Policy and Management. He also served as one of nine judges for the Malcolm Baldrige National Quality Award and The Military Health Care Advisory Board.

Dr. Sahney is a co-author of a book titled “Reengineering Health Care: Building on CQI”. He has authored over 50 publications, including: books, chapters in books, publications in journals and conference proceedings. He has made over 100 presentations at national and international meetings.

His board service includes the Institute for Healthcare Improvement as a founding member, director and board chair; St. Joseph Mercy – Macomb Hospital; St. Joseph Mercy – Oakland Hospital; Enterprise Development Fund; Michigan’s Children; Group Practice Improvement Network as a founding member and director; Society for Healthcare Strategy and Market Development; founding member and president of the Society for Health Systems; Faculty Practice Plan at Washington University School of Medicine; and Henry Ford OptimEyes.

He has received a number of awards including the Dean Conley Award from the American College of Health Care Executives for the best paper published in health care management; the Best Paper Award and Quality Award from Health Care Information and Management Systems Society of the American Hospital Association; a Distinguished Service Award from the Institute of Industrial Engineers; the Founders Award from the Society of Health Systems; the Fellow Award from both IIE and HIMSS/AHA; the Distinguished Service Award from the University of Wisconsin, Madison; and the Gold Award from the Engineering Society of Detroit.
**THURSDAY, FEBRUARY 14, 2013**

2:00 pm – 6:00 pm  Registration/Speaker Prep

**FRIDAY, FEBRUARY 15, 2013**

6:30 am – 7:00 am  Breakfast/Registration

7:00 am – 8:00 am  Breakfast Seminars: How I Do It

#1: Acoustic Neuroma  Doral Ballroom A
#2: Skull Base Approaches for Aneurysms  Doral Ballroom B
#3: Reconstructing the Skull Base  Doral Ballroom C
#4: Sinonasal Tumors  Doral Ballroom D

8:00 am – 9:00 am  Concurrent Sessions

#1: SNUC-Treatment Protocols & Outcomes  Doral Ballroom A
#2: Craniopharyngiomas  Doral Ballroom B
#3: Primary Facial Nerve Tumors  Doral Ballroom C
#4 Vascular Lesions of the Skull Base: Approaches and Management Strategies  Doral Ballroom D

9:00 am – 9:30 am  Break with Exhibitors

9:30 am – 12:00 pm  Plenary Session I  Doral Ballroom D

9:00 am: Welcome
9:35 am: 3D Anatomy: Nasal Sinuses and Anterior Skull Base
10:00 am: Keynote Guest Lecturer: “Reliability: The Next Challenge in Health Care Quality Improvement”
10:30 am: Presidential Address: “The Complexity of Determining True Quality in Skull Base Surgery”
11:00 am: Top Abstract #1: “Risk Factors Associated With Post-Operative CSF Leak”
11:10 am: Comment on Abstract #1
11:13 am: “Determining Quality from Discharge Claims Data”

11:30 am – 12:00 pm  Honored Guest: “The Challenge of Educating Future Skull Base Surgeons”

12:00 pm – 1:00 pm  NASBS Business Meeting  Palms North

1:00 pm – 2:00 pm  Concurrent Sessions

#5: Tumors of the Orbit & the Optic Nerve  Doral Ballroom A
#6: Vestibular Schwannomas: Hearing Preservation & Restoration  Doral Ballroom B
#7: Avoidance & Management of Vascular Complications in Skull Base Surgery  Doral Ballroom C
#8: Radiation Oncology  Doral Ballroom D

2:00 pm – 3:30 pm  Proffered Paper Sessions

Proffered Paper Session I: Anterior Skull Base  Doral Ballroom A
Proffered Paper Session II: Chordomas & Various Endoscopic Approaches  Doral Ballroom B
Proffered Paper Session III: General: Anatomy, Biomechanics & Approaches  Doral Ballroom C
Proffered Paper Session IV: Sellar and Parasella Tumors  Laurel
Proffered Paper Session V: General Session  Doral Ballroom D

3:30 pm – 4:00 pm  Break with Exhibitors

4:00 pm – 5:30 pm  Proffered Paper Sessions

Proffered Paper Session VI: CSF Leaks, Nasal Septal Flaps, Endoscopic Reconstructions  Doral Ballroom A
Proffered Paper Session VII: Head & Neck Tumors  Doral Ballroom B
Proffered Paper Session VIII: Meningiomas/Radiation Therapy  Doral Ballroom C
Proffered Paper Session IX: Vascular  Laurel
Proffered Paper Session X: General Session  Doral Ballroom D

5:30 pm – 7:00 pm  Welcome Reception in Exhibit Hall  Grand Ballroom

**SATURDAY, FEBRUARY 16, 2013**

6:30 am – 7:00 am  Breakfast/Registration

7:00 am – 8:00 am  Breakfast Seminars: How I Do It

#5: Endoscopic Approaches to Anterior Lateral Skull Base/Middle Fossa  Doral Ballroom A
#6: Sellar & Supra Sellar Tumors  Doral Ballroom B
#7: Approach to Cavernous Sinuses  Doral Ballroom C
#8: Petrous Apex Lesions  Doral Ballroom D
8:00 am – 9:00 am  **Concurrent Sessions**  
#9: Juvenile Nasopharyngeal Angiofibromas  
#10: Chordomas  
#11: Proffered Paper Session XI: Innovative Technologies & Approaches  
#12: Expert Case Review – unknown cases presented to panel for opinions and recommendations  
Doral Ballroom A  
Doral Ballroom B  
Doral Ballroom C  
Doral Ballroom D

9:00 am – 9:30 am  **Break with Exhibitors**  
Doral Ballroom D

9:30 am – 12:00 pm  **Plenary II**  
9:50 am: Top Abstract #2: “Factors Associated with Biochemical Remission After Open Transsphoidal Surgery for Acromegaly”  
10:00 am: Comment on Top Abstract #2  
10:03 am: Quality and Performance Measures in an Academic Surgical Practice  
10:25 am: Report from the Research Committee on Registry Development  
10:30 am: Award Presentations (Lifetime Achievement, Top Resident & Medical Student Abstracts)  
10:35 am: Top Abstract #3: “FLLL32 STAT3 Inhibition Is Effective Against Chordoma In Vitro”  
10:45 am: Comment on Top Abstract #3  
10:58 am: Quality Care in Anterior Skull Base Meningioma Surgery  
11:20 am: Journal Update  
11:25 am: Top Abstract #4: “Modifications to the Endoscopic Approach for Anterior Skull Base Lesions Improve Postoperative Sinonasal Symptoms”  
11:35 am: Comment on Top Abstract #4  
11:38 am: “A Quality Based Approach to Skull Base Surgery”

12:00 pm – 1:00 pm  **Lunch on own**

1:00 pm – 2:00 pm  **Concurrent Sessions**  
#13: The Cavernous Sinus  
#14: Adenoid Cystic Carcinoma & The Science of Perineural Invasion: Are Clear Margins Attainable for Advanced Disease?  
#15: Acoustic Tumors: Managing Facial Paralysis  
#16: CSF Leaks/Meningo-encephalocoeles & SCC Dehiscence  
Doral Ballroom A  
Doral Ballroom B  
Doral Ballroom C  
Doral Ballroom D

2:00 pm – 3:30 pm  **Proffered Paper Sessions**  
Proffered Papers XII: Endoscopic Approaches/Anterior Skull Base  
Proffered Papers XIII: Head & Neck Tumors & General Topics  
Proffered Papers XIV: Sellar and Parasellar Tumors  
Proffered Papers XV: Vestibular Schwannomas  
Doral Ballroom A  
Doral Ballroom B  
Doral Ballroom C  
Doral Ballroom D

3:30 pm – 4:00 pm  **Break with Exhibitors**  
Doral Ballroom D

4:00 pm – 4:20 pm  **CPT Coding**  
Doral Ballroom D

4:20 pm – 5:00 pm  **Skull Base Jeopardy**  
Doral Ballroom D

6:30 pm – 10:00 pm  **Social Event: Havana Nights**  
Spa Pool

**SUNDAY, FEBRUARY 17, 2013**

7:30 am – 8:00 am  **Breakfast/Registration**  
Grand Ballroom

8:00 am – 9:00 am  **Breakfast Seminars: How I Do It**  
#9: Far Lateral Approach  
#10: Jugular Foramen  
#11: Petroclival Meningiomas  
Doral Ballroom A  
Doral Ballroom B  
Doral Ballroom D

9:00 am – 10:00 am  **Concurrent Sessions**  
#17: NF2  
#18: Benign Tumors of the Anterior Skull Base Optimizing Outcome  
#19: Trigeminal Schwannomas  
#20: Expert Case Review – unknown cases presented to panel for opinions and recommendations  
Doral Ballroom A  
Doral Ballroom B  
Doral Ballroom C  
Doral Ballroom D

10:00 am – 10:30 am  **Break with Exhibitors**  
Doral Ballroom D

10:30 am – 12:45 pm  **Plenary Session**  
10:30 am: Quality Care for Anterior Skull Base Malignancy  
11:10 am: Top Abstract #5: “Assessment of the Performance of Frozen Section Margin Analysis During Esthesioneuroblastoma Surgery”  
11:20 am: Comment on Top Abstract #5  
11:23 am: Top Abstract #6: “Transoral Robotic Surgery for Paraharyngeal Space Masses: Indications and Results”  
11:33 am: Comment on Top Abstract #6  
11:36 am: 3D Anatomy Talk
# Practical Course Dissection Workshop, Open & Endoscopic Approaches to the Skull Base

*Additional registration fee.

## DAY ONE: FEBRUARY 13, 2013

**COURSE CHAIRS:** Dr. Vijay Anand & Dr. James Evans  
**Held at the M.A.R.C. Institute, Miami, Florida**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker(s)</th>
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</thead>
<tbody>
<tr>
<td>7:15 am</td>
<td>Welcome – Vijay Anand, MD</td>
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</tbody>
</table>
| 7:20 am | **3D Surgical Anatomy for Endoscopic Skull Base Surgeon**  
            – Juan Fernandez-Miranda, MD                     |                                                                                                |
| 7:40 am | **Role of Image Guidance in Endoscopic Skull Base Surgery**  
            – Abtin Tabaee, MD                                  |                                                                                                |
| 8:00 am | **Surgical Corridors: Sellar and Supra Sellar Approaches**  
            – Theodore Schwartz, MD                         |                                                                                                |
| 8:20 am | **Current Concepts in Endoscopic Approaches to Craniopharyngioma**  
            – John Jane, Jr., MD                              |                                                                                                |
| 8:40 am | **Challenges in Meningioma Management**  
            – James Evans, MD                                  |                                                                                                |
| 9:00 am | **Pearls in Endoscopic Skull Base Reconstruction**  
            – Marc Rosen, MD                                   |                                                                                                |
| 9:20 am | **Endoscopic management of Chordoma**  
            – Peter Hwang, MD                                  |                                                                                                |
| 9:40 am | **Coffee Break**                                                      |                                                                                                |
| 10:00 am | **Endoscopic Skull Base Surgery – Quality of Life Evaluation**  
            – Edward McCoul, MD                               |                                                                                                |
| 10:20 am | **Surgical Corridors: Infratemporal Fossa & Cavernous Sinus**  
            – Vijay Anand, MD                                 |                                                                                                |
| 10:40 am | **Endoscopic Management of Vascular Complications**  
            – Brent Senior, MD                                |                                                                                                |
| 11:00 am | **Successful management of Complications of Skull Base Surgeries**  
            – Roy Casiano, MD                                 |                                                                                                |
| 11:20 am | **Endoscopic Resection of Sino Nasal Malignancy**  
            – Ehab Hanna, MD                                   |                                                                                                |
| 11:40 am | **My Most Challenging Case**  
            – **MODERATOR:** Vijay Anand, MD  
            Brent Senior, MD, James Evans, MD, John Jane, Jr., MD,  
            Theodore Schwartz, MD, Carl Heilman, MD,  
            Ehab Hanna, MD & Roy Casiano, MD                    |                                                                                                |
| 12:30 pm | **Lunch/Summation**  
            – James Evans, MD                                   |                                                                                                |
| 1:30 pm | **Prosection & Demonstration**                                        |                                                                                                |
| 2:00 pm | **Lab Dissection**                                                    |                                                                                                |
| 6:00 pm | **Adjourn**  
            Shuttle back to hotel                                      |                                                                                                |

## DAY TWO: FEBRUARY 14, 2013

**COURSE CHAIRS:** Dr. Sandeep Samant & Dr. Carlos David  
**Held at the M.A.R.C. Institute, Miami, Florida**

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<thead>
<tr>
<th>Time</th>
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</table>
| 8:00 am | **Introduction**  
            Carlos David, MD & Sandeep Samant, MD                             |                                                                                                |
| 8:10 am | **Lecture: Anterior Transfacial Approaches**  
            Dennis Kraus, MD & Michael Kupferman, MD                           |                                                                                                |
| 8:30 am | **Lecture: Cranial Orbital Zygomatic Approaches**  
            Carlos David, MD                                                   |                                                                                                |
| 8:50 am | **Dissection Lab**                                                    |                                                                                                |
| 10:30 am | **Break**                                                            |                                                                                                |
| 10:45 am | **Lecture: Lateral Preauricular Infratemporal Approaches**  
            Daniel Nuss, MD                                                    |                                                                                                |
| 11:05 am | **Lecture: Middle Fossa Approaches**  
            Chandranath Sen, MD                                                |                                                                                                |
| 11:25 am | **Dissection Lab**                                                    |                                                                                                |
| 1:00 pm | **Lunch**                                                            |                                                                                                |
| 2:00 pm | **Lecture: Postauricular Transtemporal Approaches. Neurootology Perspective**  
            Rick Friedman, MD                                                  |                                                                                                |
| 2:20 pm | **Lecture: Postauricular Transtemporal Approaches. Neurosurgery Perspective**  
            Mustafa Baskaya, MD                                               |                                                                                                |
| 2:40 pm | **Dissection Lab**                                                    |                                                                                                |
| 4:20 pm | **Break & Questions**                                                 |                                                                                                |
| 4:45 pm | **Case Presentations**  
            Carlos David, MD & Sandeep Samant, MD  
            (to be discussed by panel of invited faculty)                     |                                                                                                |
| 6:00 pm | **Adjourn**  
            Shuttle back to hotel                                                 |                                                                                                |
### Thursday, February 14, 2013

2:00 pm – 6:00 pm  **Registration/Speaker Prep**

### Friday, February 15, 2013

6:30 am – 7:00 am  **Breakfast/Registration**

7:00 am – 8:00 am  **Breakfast Seminars: How I Do It**

<table>
<thead>
<tr>
<th>#1: Acoustic Neuroma</th>
<th>Doral Ballroom A</th>
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<tbody>
<tr>
<td>Moderator: Fred F. Telischi, MD</td>
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<tr>
<td>Panelists: Derald Brackmann, MD, Marcos Tatagiba, MD, PhD &amp; Fred F. Telischi, MD</td>
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<tr>
<td><em>The North American Skull Base Society thanks Stryker for its support of this seminar</em></td>
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<tr>
<th>#2: Skull Base Approaches for Aneurysms</th>
<th>Doral Ballroom B</th>
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<tbody>
<tr>
<td>Moderator: Carlos David, MD</td>
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<tr>
<td>Panelists: Ali Krisht, MD, Jacques Morcos, MD &amp; Troy Payner, MD</td>
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<tr>
<th>#3: Reconstructing the Skull Base</th>
<th>Doral Ballroom C</th>
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<tbody>
<tr>
<td>Pericranial Flaps and Bone Grafts in Skull Base Reconstruction</td>
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<tr>
<td>Microvascular Free Flap Reconstruction of the Skull Base</td>
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<tr>
<td>Endoscopic Skull Base Reconstruction</td>
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<tr>
<td>Algorithm for Skull Base Reconstruction and Facial Nerve Reconstruction</td>
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<tr>
<td>Moderator: Matthew Hanasono, MD</td>
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<tr>
<td>Panelists: Peter D. Costantino, MD, Bruce Haughey, MD &amp; Lawrence Marenette, MD</td>
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<tr>
<th>#4: Sinonasal Tumors</th>
<th>Doral Ballroom D</th>
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<tbody>
<tr>
<td>Moderator: Dennis Kraus, MD</td>
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<tr>
<td>Panelists: Franco DeMonte, MD &amp; Patrick Gullane, MD</td>
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### Concurrent Sessions

8:00 am – 9:00 am  **Concurrent Sessions**

<table>
<thead>
<tr>
<th>#1: SNUC-Treatment Protocols &amp; Outcomes</th>
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<tbody>
<tr>
<td>Surgical Resection</td>
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<td>Radiation &amp; Chemotherapy</td>
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<tr>
<td>Prognostic Factors</td>
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<tr>
<td>Moderator: Jatin Shah, MD</td>
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<tr>
<td>Panelists: Brian Nussenbaum, MD &amp; Ehab Hanna, MD</td>
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<tr>
<th>#2: Craniohypophysealomas</th>
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<tbody>
<tr>
<td>Transcranial Approaches to Craniohypophysealomas</td>
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<tr>
<td>Endoscopic Endonasal Approaches to Craniohypophysealomas</td>
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<tr>
<td>Management of Third Ventricular Craniohypophysealomas</td>
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<tr>
<td>Moderator: John Jane, Jr., MD</td>
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<tr>
<td>Panelists: Fred Gentili, MD, Theodore Schwartz, MD &amp; Luigi Cavallo, MD</td>
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<tr>
<th>#3: Primary Facial Nerve Tumors</th>
<th>Doral Ballroom C</th>
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<tbody>
<tr>
<td>Clinicoradiographic Assessment and “Wait and See” Approach</td>
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<tr>
<td>Surgical Management</td>
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<td>Radiation Therapy</td>
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<tr>
<td>Open Discussion and Case Presentation</td>
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<tr>
<td>Moderator: John Leonetti, MD</td>
<td></td>
</tr>
<tr>
<td>Panelists: Christopher Danner, MD, Rick Friedman, MD &amp; Jonathan Sillman, MD</td>
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<tr>
<th>#4: Vascular Lesions of the Skull Base: Approaches and Management Strategies</th>
<th>Doral Ballroom D</th>
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<tbody>
<tr>
<td>Vascular Control in Skull Base Tumors</td>
<td></td>
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<tr>
<td>Optimal Skull Base Approaches</td>
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<tr>
<td>Minimally Invasive Eyelid Fronto-Orbital Craniotomy for Anterior Circulation Aneurysms</td>
<td></td>
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<tr>
<td>Moderator: Khaled Aziz, MD</td>
<td></td>
</tr>
<tr>
<td>Panelists: Khaled Aziz, MD, Ketan Bulsara, MD &amp; Ivan Radovanovic, MD</td>
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<td>Time</td>
<td>Event</td>
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<tr>
<td>9:00 am – 9:30 am</td>
<td>Break with Exhibitors</td>
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<tr>
<td>9:30 am – 12:00 pm</td>
<td><strong>PLENARY SESSION I</strong></td>
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<tr>
<td>9:30 am</td>
<td><strong>Welcome</strong> – Michael Chicoine, MD</td>
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<td>9:35 am</td>
<td><strong>3D Anatomy: Nasal Sinuses and Anterior Skull Base</strong></td>
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<td>Juan Carlos Fernandez-Miranda, MD</td>
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<td><em>The North American Skull Base Society thanks Medtronic Surgical Technologies for its support of this session.</em></td>
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<td>10:00 am</td>
<td><strong>Keynote Guest Lecturer: “Reliability: The Next Challenge in Health Care Quality Improvement”</strong></td>
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<td>Vinod Sahney, PhD, Introduction by Carl Heilman, MD</td>
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<td>10:30 am</td>
<td><strong>Presidential Address: “The Complexity of Determining True Quality in Skull Base Surgery”</strong></td>
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<td>Carl Heilman, MD</td>
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<td><em>The North American Skull Base Society thanks Stryker for its support of the Presidential Address.</em></td>
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<tr>
<td>11:00 am</td>
<td><strong>Top Abstract #1</strong></td>
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<td>133 RISK FACTORS ASSOCIATED WITH POST-OPERATIVE CSF LEAK – Shannon Fraser, MD (presenter), Paul A Gardner, MD, Carl H Snyderman, MD, Maria Koutouriousiou, MD, Juan Fernandez-Miranda, MD, Eric W Wang, MD, University of Pittsburgh</td>
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<td>11:10 am</td>
<td><strong>Comment on Abstract #1</strong> – Jacques Morcos, MD</td>
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<td>11:13 am</td>
<td><strong>“Determining Quality from Discharge Claims Data”</strong></td>
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<td>Fred Barker, MD</td>
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<td>11:30 am</td>
<td><strong>Honored Guest: “The Challenge of Educating Future Skull Base Surgeons”</strong></td>
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<td>Jon Robertson, MD</td>
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<td>12:00 pm – 1:00 pm</td>
<td><strong>NASBS Business Meeting</strong></td>
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<td>All NASBS members welcome: lunch will be provided</td>
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<td>Lunch for non-members provided in Exhibit Hall</td>
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<tr>
<td>1:00 pm – 2:00 pm</td>
<td><strong>CONCURRENT SESSIONS</strong></td>
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**#5: Tumors of the Orbit & the Optic Nerve**
- Role of Proton Beam Therapy in the Treatment of Skull Base Lesions of the Orbit
- Neoadjuvant Intra-arterial Cyto-reductive Chemotherapy for Adenoid Cystic Carcinoma of the Lacrimal Gland
- Ophthalmic Complications of Orbital and Skull-base Surgery
- Diagnostic Techniques for Skull Base Lesions In and Around the Orbit
MODERATOR: Steven Newman, MD
PANELISTS: Annie Chan, MD, David Tse, MD & Phil Custer, MD

**#6: Vestibular Schwannomas: Hearing Preservation & Restoration**
- Natural History of VS, Especially as it Relates to Hearing Outcomes from the University of Bologna Experience
- Retrosigmoid Surgery with Direct Cochlear Nerve Monitoring and Hearing Outcomes
- Hearing Outcomes with SRS and Use of SRS and Cochlear Implants in Patients with NF2 or an Only Hearing Ear
MODERATOR: Michael Link, MD
PANELISTS: Andrea Castellucci, MD, Roberto Cueva, MD & Michael Link, MD

**#7: Avoidance & Management of Vascular Complications in Skull Base Surgery**
- Veins & Venous Sinuses
- Management of Internal Carotid Artery
- Embolization
MODERATOR: John Wilson, MD
PANELISTS: Amir Dehdashti, MD, Joung Lee, MD & B. Gregory Thompson, MD

**#8: Radiation Oncology**
- Evidence Base for Radiation Including Meningiomas, Glomus Tumors, & Non-vestibular Schwannomas
- Practical and Theoretical Differences Between Radiation Modalities (Gamma Knife, Linac, Cyberknife, IMRT, Proton Beam)
MODERATOR: Joseph Simpson, MD, PhD
PANELISTS: Steve Chang, MD, Robert Malyapa, MD & Joseph Simpson, MD
**PROFFERED PAPER SESSIONS**

**2:00 pm – 3:30 pm**

All oral presentations are 7 minutes in length. All Q&A sessions are 9 minutes.

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**PROFFERED PAPER SESSION I: Anterior Skull Base**

**Doral Ballroom A**

**MODERATORS:** Donald Annino, MD & Murali Guthikonda, MD

**001** LONG-TERM OUTCOMES OF ENDONASAL ENDOSCOPIC CEREBROSPINAL FLUID LEAK REPAIRS: A POOLED-DATA ANALYSIS USING KAPLAN-MEIER TECHNIQUES – Thomas S Higgins, MD MSPH (presenter), Bulent Ocal, MD, Gary L Gallia, MD, Douglas D Reh, MD, Kentuckiana ENT / Johns Hopkins University

**002** THE USE OF HYPERBARIC OXYGEN THERAPY IN THE MANAGEMENT OF OSTEORADIONECROSIS OF THE SKULL BASE – Aaron K Remenschneider, MD (presenter), Kyle Chambers, MD, Josh Meier, MD, Marc Herr, MD, Alice Lin, MD, Derrick Lin, MD, Daniel G Deschler, MD, Stacey T Gray, MD, Department of Otology and Laryngology, Harvard Medical School

**003** OLFACTORY NEUROBLASTOMAS PATTERNS OF METASTASES – Niamh O’Shea (presenter), Richard Millard, Peter Clarke, Ann Sandison, Charing Cross Hospital, London, UK

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**QUESTION & ANSWER SESSION**

**004** OUTCOMES FOR ENDOSCOPIC ENDONASAL RESECTION OF ADENOCYSTIC CARCINOMA OF THE SINONASAL CAVITY AND SKULL BASE – Shirley Y Su, MD (presenter), John R de Almeida, MD, Francisco Vaz Guimaraes Filho, MD, Maria Koutourousiou, MD, Eric W Wang, MD, Juan Fernandez-Miranda, MD, Paul A Gardner, MD, Carl H Snyderman, MD MBA, University of Pittsburgh Medical Center

**005** ENDOSCOPIC ENDONASAL SURGERY FOR SQUAMOUS CELL CARCINOMA OF THE SINONASAL CAVITIES AND SKULL BASE – John R de Almeida, MD MSc (presenter), Shirley Y Su, MD MSc, Maria Koutourousiou, MD, Francisco Vaz Guimaraes Filho, MD, Juan C Fernandez Miranda, MD, Paul A Gardner, MD, Eric W Wang, MD, Carl H Snyderman, MD MBA, University of Pittsburgh Medical Center

**006** ESTHESIONEUROBLASTOMA: AN UPDATE ON THE MASSACHUSETTS EYE AND EAR INFIRMARY AND MASSACHUSETTS GENERAL HOSPITAL EXPERIENCE WITH CRANIOFACIAL RESECTION, PROTON BEAM RADIATION, AND CHEMOTHERAPY – Marc W Herr, MD (presenter), Alice Lin, MD, William T Curry, MD, Fred C Baker, MD, Annie Chan, MD, Daniel G Deschler, MD FACS, Derrick T Lin, MD FACS, Massachusetts General Hospital and Massachusetts Eye and Ear Infirmary

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**PROFFERED PAPER SESSION II: Chordomas & Various Endoscopic Approaches**

**Doral Ballroom B**

**MODERATORS:** Gavin Britz, MD & Elie Rebeiz, MD

**010** INCIDENCE AND SURVIVAL PATTERNS OF CRANIAL CHORDOMA IN THE UNITED STATES – Kyle J Chambers, MD (presenter), Aaron Remenschneider, MD, Josh Meier, MD, Marc Herr, MD, Alice Lin, MD, Stacey Gray, MD, Lin Derrick, MD, Massachusetts Eye and Ear Infirmary, Harvard Medical School

**011** PREDICTORS OF VISUAL OUTCOME FOLLOWING SURGICAL RESECTION OF MEDIAL SPHENOID WING MENINGIOMAS – Kaieorn L Chaichana (presenter), Neil Miller, Prem Subramanian, Michael Lim, Gary Gallia, Alessandro Olivi, Jon Weingart, Henry Brem, Alfredo Quinones-Hinojosa, Johns Hopkins School of Medicine

**012** ENDOSCOPIC SKULL BASE SURGERY PRACTICE PATTERNS: SURVEY OF THE NORTH AMERICAN SKULL BASE SOCIETY – Pete S Batra, MD (presenter), Jivianne Lee, MD, Samuel L Barnett, MD, Brent A Senior, MD, Michael Setzen, MD, Dennis Kraus, MD, University of Texas Southwestern Medical Center, Orange County Sinus Institute, University of North Carolina School of Medicine, North Shore Health System

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**QUESTION & ANSWER SESSION**

**013** LONG-TERM SURVIVAL AND MRI ENHANCEMENT OF NASOSEPTAL FLAPS IN ENDOSCOPIC ENDONASAL SKULL BASE SURGERY – Stefan Mlot, MD, Roheen Raithatha, MD (presenter), Oszkar Szentirmai, MD, Vijay Anand, MD, Theodore Schwartz, MD, New York Presbyterian/Weill Cornell Medical Center
014 ENDOSCOPIC ENDONASAL TRANSSPHENOIDAL APPROACH TO LARGE AND GIANT PITUITARY ADENOMAS: INSTITUTIONAL EXPERIENCE AND PREDICTORS OF EXTENT OF RESECTION – Kyle Juraschka, BHCsc, Boris Krischek, MD PhD (presenter), Eric Monsalves, BS, Alex Kilian, Aisha Chare, BS, Bruno L Godoy, MD, Alan Vescan, MD, Fred Gentili, MD MSc, Gelareh Zadeh, MD PhD, University Health Network, Toronto, Ontario, Canada

015 SPONTANEOUS CSF RHINORRHEA: PREVALENCE OF MULTIPLE SIMULTANEOUS CSF LEAKS AND SKULL BASE DEFECTS – Seth Lieberman, MD (presenter), Roy Casiano, MD, University of Miami

QUESTION & ANSWER SESSION

016 EXTENDED INFERIOR TURBINATE FLAP FOR ENDOSCOPIC SKULL BASE RECONSTRUCTION – Carret W Choby, MD, Carlos D Pinheiro-Neto, MD PhD, Eugenio C Ruiz-Valdepenas, MD, Eric W Wang, MD, Juan C Fernandez-Miranda, MD, Paul A Gardiner, MD, Carl H Snyderman, MD MBA (presenter), University of Pittsburgh School of Medicine

017 MANAGEMENT OF OBSTRUCTIVE SLEEP APNEA FOLLOWING ENDOSCOPIC SKULL BASE SURGERY – Kevin A Peng, MD (presenter), Barbara M Van de Wiele, MD, Jeffrey D Suh, MD, Marvin Bergsneider, MD, Marilene B Wang, MD, University of California, Los Angeles

018 ENDOSCOPIC SURGERY FOR SINONASAL MUCOSAL MELANOMA – Andrew M Rivera, MD (presenter), Seth M Lieberman, MD, Roy R Casiano, MD, University of Miami Department of Otolaryngology

QUESTION & ANSWER SESSION

PROFFERED PAPER SESSION III: General: Anatomy, Biomechanics & Approaches

Doral Ballroom C

MODERATORS: Khaled Aziz, MD & Eric Wang, MD

019 SUPERORBITAL KEY HOLE APPROACH FOR ECISION OF CRANIOPHARYNGIOMAS – Ali Ayyad, MD (presenter), department of neurosurgery, Johannes gutenberg university

020 QUANTITATIVE COMPARISON OF RETROSIGMOID INTRADURAL SUPRAMEATAL APPROACH AND RETROSIGMOID TRANSTENTORIAL APPROACH: IMPLICATIONS FOR TUMORS IN THE ETHEROCLIVAL REGION – Sudheer Ambekar, MD (presenter), Chizao Amene, MD, Osama Ahmed, MD, Bharat Guthikonda, MD, Anil Nanda, MD MPH FACS, Department of Neurosurgery, Louisiana State University Health Sciences Center, Shreveport, 1501 Kings Highway, Shreveport, Louisiana 71130-3932

021 ANATOMICAL VARIANTS AND LANDMARKS FOR THE ANTERIOR ETHMOID ARTERY: A STUDY OF CT IMAGING – Rataphol Chris Dhepnorrarat, MD FRACS (presenter), Ian Witterick, MD FRCSC, Mt Sinai Hospital, Toronto, Ontario, Canada

QUESTION & ANSWER SESSION

022 SURGICAL APPROACHES TO THE SUPRASELLAR INFRACHIASMATIC REGION: COMPARISON BETWEEN PTERIONAL, SUBFRONTAL AND ENDOSCOPIC ENDONASAL APPROACHES – Francisco A Vaz Guimaraes Filho, MD MSc (presenter), Rodrigo A Cavalcante, MD, Milton M Rastelli Jr, MD, Omar Ramirez, MD, Alessandro Paluzzi, MD, Carlos D Pinheiro-Neto, MD PhD, Juan C Fernandez-Miranda, MD, Paul A Gardner, MD, Carl H Snyderman, MD MBA, University of Pittsburgh Medical Center

023 NERVE TRANSFERS FOR FACIAL PALSY FOLLOWING SKULL BASE SURGERY – Nobutaka Yoshioka, MD (presenter), Saiseikai Nakatsu Hospital

024 BIOMECHANICAL EVALUATION OF THE CRANIOVERTEBRAL JUNCTION AFTER ANTERIOR UNILATERAL CONDYLECTOMY: IMPLICATIONS FOR ENDONASAL ENDOSCOPIC APPROACHES TO THE CRANIAL BASE – Andrew S Little, MD (presenter), Luis Perez-Orribo, MD, Richard D Lefevre, BS, Phillip R Reyes, BS, Daniel M Prevedello, MD, Peter Nakaji, MD, Curtis Dickman, MD, Neil R Crawford, PhD, Barrow Neurological Institute, Ohio State University

QUESTION & ANSWER SESSION

025 TEMPORAL BONE ENCEPHALOCELE AND CEREBROSPINAL FLUID LEAK REPAIR VIA THE MIDDLE CRANIAL FOSSA APPROACH – Matthew L Carlson, MD (presenter), William R Copeland III, MD, Stanley Pelosi, MD, Colin L Driscoll, MD, Michael J Link, MD, David S Haynes, MD, Reid C Thompson, MD, Kyle D Weaver, MD, George B Wanda, MD, Vanderbilt University, Nashville, TN 37232, USA; Mayo Clinic, MN 55905, USA

026 ACOUSTIC NEUROMA OBSERVATION LEADS TO AN INCREASE IN TINNITUS SEVERITY: RESULTS OF THE 2007-2008 ACOUSTIC NEUROMA ASSOCIATION SURVEY – Jamie J Van Gompel, MD (presenter), Jaymin Patel, BS, Chris Danner, MD, A. Sammy Youssef, MD, Harry R van Loveren, MD, Siviero Agazzi, MD, University of South Florida

027 ENHANCING VALUE OF PITUITARY SURGERY BY MAINTAINING QUALITY AND REDUCING COST – Serge Teterov, MD (presenter), Marvin Bergsneider, MD, Department of Neurosurgery, David Geffen School of Medicine, University of California Los Angeles

QUESTION & ANSWER SESSION
028 PATIENT AND PERIOPERATIVE FACTORS INFLUENCING BLOOD LOSS IN ENDOSCOPIC TRANSPHENOIDAL RESECTION OF PITUITARY TUMORS - Andrew D Kroeker, MD (presenter), Stephen Y Kang, MD, Thomas J Wilson, MD, Stephen Sullivan, MD, Erin L McKeen, MD MBA, University of Michigan

029 PREDICTIVE VALUE OF Cavernous Sinus Invasion ON EXTENT OF RESECTION FOLLOWING ENDOSCOPIC TRANSPHENOIDAL RESECTION OF PITUITARY MACROADENOMAS - Christopher J Farrell, MD (presenter), Sonia Teufack, MD, Mary Petrone, BA, Rahul Sharma, BA, Tyler J Kenning, MD, Donald D Beahm, MD, Mark Friedel, MD, Gurston Nyquist, MD, Marc R Rosen, MD, James J Evans, MD, Thomas Jefferson University

030 ACTH SILENT TUMORS OF THE CLIVUS: SURGICAL MANAGEMENT AND OUTCOME – Raj K Shrivastava, MD (presenter), Satish Govindaraj, MD, Abtin Tabaei, MD, Eliza Geer, MD, Pauline Liao, MD, Mount Sinai Medical Center and Beth Israel Medical Center, NY

031 PSEUDOCAPSULAR RESECTION TECHNIQUE FOR LARGE PITUITARY MACROADENOMAS – M Bergsneider, MD (presenter), J Suh, MD, M B Wang, MD, UCLA

032 AIRWAY MANAGEMENT AND PERIOPERATIVE CONCERNS IN ACROMEGALY PATIENTS UNDERGOING ENDOSCOPIC SURGERY FOR PITUITARY TUMORS – Mark Friedel, MD (presenter), Marc R Rosen, MD, Gurston C Nyquist, MD, Christopher J Farrell, MD, James J Evans, MD, Thomas Jefferson University Hospital

033 KI-67 EXPRESSION FOR PREDICTING PROGRESSION OF POSTOPERATIVE RESIDUAL PITUITARY ADENOMAS, AND CLINICAL FEATURES OF ATYPICAL PITUITARY ADENOMAS – Junko Matsuyama, MD PhD (presenter), Tomoyoshi Oikawa, MD PhD, Kiyoshi Saito, MDPhD, Department of Neurosurgery, Fukushima Medical University

034 EVALUATION OF OUTCOME AFTER ENDOSCOPIC ENDONASAL SURGERY FOR LARGE AND GIANT PITUITARY MACROADENOMA – Gregory J Imbarrato, DO (presenter), Amir Dehdash, MD FACS, Geisinger Medical Center

035 THE RECESSES OF THE SELVAR WALL OF THE SPHENOID SINUS AND THEIR INTRACRANIAL RELATIONSHIPS – Maria Peris-Celda, MD PhD (presenter), Baris Kucukyuruk, MD, Alejandro Monroy-Sosa, MD, Takeshi Funaki, MD, Rowan Valentine, MD, Albert L Rhoton, MD, Department of Neurosurgery, University of Florida

036 RELATIONSHIP OF OPTIC CHIASM TO SELLA TURCICA AND PITUITARY STALK: CORRELATION OF CADAVERIC AND IMAGING FINDINGS – Christoph J Griessenauer, MD (presenter), Joel Raborn, Martin M Mortazavi, MD, Shane R Tubbs, MS PAC PhD, University of Alabama at Birmingham

037 THE UTILITY OF HIGH RESOLUTION INTRAOPERATIVE MRI IN ENDOSCOPIC TRANSPHENOIDAL SURGERY FOR PITUITARY MACROADENOMAS: EARLY EXPERIENCE IN THE ADVANCED MULTIMODALITY IMAGE GUIDED OPERATING (AMIGO) SUITE – Kenneth De Los Reyes, MD (presenter), Daniel A Donoho, Ananth Narayan, MD, Garni Barkhoudarian, MD, Ning Lin, MD, Jordina Rincon-Tororea, Sean Jackson, Janice Fairhurst, Mukundan Srinivasan, MD PhD, Edward R Laws, MD, Brigham and Women's Hospital, Harvard Medical School

038 ENDOSCOPIC ENDONASAL ANATOMY OF THE OPTIC CANAL – Francisco A Vaz Guimaraes Filho, MD MSc (presenter), Omar Ramirez, MD, Yancy Acosta, MD, Luis R Bonilla, MD, Milton M Rastelli Jr, MD, Maria Koutourouisiou, MD, Juan C Fernandez-Miranda, MD, Paul A Gardner, MD, Carl H Snyderman, MD MBA, University of Pittsburgh Medical Center

039 THE ENDOSCOPIC HEMI-TRANSSEPTAL APPROACH TO THE SELLA TURCICA: A TECHNIQUE ALLOWING PRESERVATION OF THE NASOSEPTAL FLAP FOR SELECTIVE USE IN RECONSTRUCTION – Marc A Tewfik, MD MSc FRCSC (presenter), Constanza J Valdes, MD, Anthony Zeitooni, MD FRCS, Denis Sirhan, MD FRCS, Salvatore Di Maio, MD FRCS, McGill University Health Centre & Jewish General Hospital

040 REGIONAL DISPARITIES AND EVOLVING PRACTICE PATTERNS IN SURGICAL APPROACHES TO PITUITARY TUMORS IN THE UNITED STATES – Peter F Svider, BA (presenter), Brieze Keeley, BA, Qasim Husain, BS, Kevin Mauro, Michael Setzen, MD, Jean Anderson Eloy, MD FACS, James K Liu, MD, University of Medicine and Dentistry of New Jersey- New Jersey Medical School

041 ANTI-ANGIOGENIC AGENTS FOR NON-MALIGNANT BRAIN TUMORS – Ammar H Hawasli, MD PhD (presenter), Joshua B Rubin, MD PhD, David D Tran, MD PhD, Douglas R Adkins, MD, Shahid Waheed, MD, Timothy E Hullah, MD, David H Gutmann, MD PhD, John Evans, RN, Michael R Chicoine, MD, Washington University School of Medicine
042 EVOLUTION OF FAR-LATERAL APPROACH: SINGLE SURGEON EXPERIENCE FROM LOUISIANA STATE UNIVERSITY, SHREVEPORT – Anil Nanda, MD MPH FACS, Sudheer Ambekar, MD (presenter), Osama Ahmed, MD, Ashish Sonig, MD, Anirban D Banerjee, MD, Louisiana State University Health Sciences Center, Shreveport, 1501 Kings Highway, Shreveport, Louisiana 71130-3932

QUESTION & ANSWER SESSION

043 *Abstract withdrawn

044 PROGNOSTIC FACTORS FOR TUMOR CONTROL FOLLOWING SURGICAL RESECTION AND ADJUVANT RADIOTHERAPY FOR INTRACRANIAL CHORDOMAS – Winward Choy, BA (presenter), Daniel T Nagasawa, MD, Andy Trang, BS, Marko Spasic, BA, Yinn Ooi, MD, Sergei Terterov, MD, William Yong, MD, Linda L Liu, PhD, Neil Martin, MD, Antonio DeSalles, MD, Tania B Kaprelian, MD, Michael Selch, MD, Marvin Berg, UCLA Neurosurgery, Jonsson Comprehensive Cancer Center

045 ENDOSCOPIC ENODNASAL TRANSSPHENOIDAL TREATMENT OF PITUITARY APopleXY: OUTCOMES IN A SERIES OF 20 PATIENTS – Tong Yang, MD PhD (presenter), Vijay K Anand, MD, Theodore H Schwartz, MD, Departments of # Neurosurgery, * Radiology, division of Neuroradiology, & Otolaryngology, $ Neurology and Neuroscience, Weill Cornell Medical College, New York Presbyterian Hospital, New York, New York

QUESTION & ANSWER SESSION

3:30 pm – 4:00 pm Break with Exhibitors

4:00 pm – 5:30 pm PROFFERED PAPER SESSIONS

All oral presentations are 7 minutes in length. All Q&A sessions are 9 minutes.

PROFFERED PAPER SESSION VI: CSF Leaks, Nasal Septal Flaps, Endoscopic Reconstructions

MODERATORS: Pete Batra, MD & James Evans, MD

046 MANAGEMENT OF CEREBROSPINAL FLUID LEAKS OF THE ANTERIOR AND LATERAL SKULL BASE – Gurston G Nyquist, MD, Marc R Rosen, MD, Mark Friedel, MD (presenter), Gregory J Artz, MD, Thomas O Willcox, MD, Saurabh Singhal, MD, Christopher J Farrell, MD, James J Evans, MD, Thomas Jefferson University Hospital

047 A REPORT OF ENDOSCOPIC TRANSSPHENOIDAL SELLAR FLOOR RECONSTRUCTION WITH RESULTANT CEREBROSPINAL FLUID LEAK RISK AND COMPLICATION MANAGEMENT – Chris I Sanders Taylor, MD (presenter), Amjad Anaizi, MD, Jennifer Kosty, MD, Lee Zimmer, MD, Phillip Theodosopoulos, MD, University of Cincinnati

048 SUCCESSFUL PREVENTION OF CEREBROSPINAL FLUID LEAKAGE AFTER ENDOSCOPIC ENODNASAL TRANSSPHENOIDAL SURGERY – Young Il Kim (presenter), Sin Soo Jeun, Department of Neurosurgery, Seoul St. Mary’s Hospital, The Catholic University of Korea, Seoul, Korea

QUESTION & ANSWER SESSION

049 BILATERAL MUCOSAL AND SEPTAL OLFATORY STRIP (SOS) PRESERVING “RESCUE” FLAPS: A NOVEL VASCULAR PEDICLE SAVING TECHNIQUE FOR ENDODNASAL ENODNASAL SKULL BASE SURGERY – Aaron R Cutler, MD (presenter), Chester F Griffiths, MD FACS, Huy T Duong, MD, Khan Karimi, MD, Cal Bordo, Garni Barkhoudarian, MD, Ricardo L Carrau, MD, Daniel F Kelly, MD, John Wayne Cancer Institute at St. John’s Health Center

050 CHALLENGES AND SURGICAL NUANCES IN RECONSTRUCTION OF LARGE PLANUM SPHENOIDALE TUBERCULUM SELLAE DEFECTS AFTER ENDODNASAL ENODNASAL RESECTION OF PARASELLAR SKULL BASE TUMORS – Jean Anderson Eloy, MD FACS (presenter), Smruti K Patel, BA, Qasim Husain, BS, Pratik A Shukla, MD, Osamah J Choudhry, MD, Rahul Singh, MD, James K Liu, MD, University of Medicine and Dentistry of New Jersey- New Jersey Medical School

051 THE EXTENDED NASOSEPTAL FLAP FOR SKULL BASE RECONSTRUCTION OF THE CLIVAL REGION: AN ANATOMICAL AND RADIOLOGICAL STUDY – Maria Peris-Celda, MD PhD (presenter), Carlos D Pinheiro-Neto, MD PhD, Takeshi Funaki, MD, Juan C Fernandez-Miranda, MD, Paul Gardner, MD, Carl H Snyderman, MD, Albert L Rhoton, MD, Department of Neurological Surgery, University of Florida; Department of Neurological Surgery, University of Pittsburgh School of Medicine; Department of Otolaryngology, University of Pittsburgh School of Medicine

QUESTION & ANSWER SESSION

052 USE OF A SYNTHETIC BIODEGRADABLE FRAGMENTABLE FOAM TO IMMOBILIZE VASCULARIZED PEDICLED FLAPS AFTER MULTILAYERED SKULL-BASE RECONSTRUCTION – Ameet Singh, MD, Alan Siu, MD (presenter), Aaron Wessel, BS, Fabio Roberti, MD, Zachary Litvack, MD, George Washington University Medical Center
053 PROSPECTIVE MULTICENTER VALIDATION OF A PATIENT-REPORTED NASAL QUALITY OF LIFE TOOL FOR ENDonasAL SKULL BASE SURGERY: THE ANTERIOR SKULL BASE NASAL INVENTORY-12 – Andrew S Little, MD (presenter), Daniel Kelly, MD, John Milligan, MD, Gail Rousseau, MD, Daniel Prevedello, MD, Ricardo Carrau, MD, Heidi Jahnke, RN BSN, Joey Raviv, Steve Becker, MD, Chester Griffiths, MD, William L White, MD, Peter Nakaji, MD, Barrow Neurological Institute

054 AN ANALYSIS OF 141 CASES OF SKULL BASE ASPERGILLOSIS OVER 11 YEARS – Sandeep Mohindra, MD (presenter), Postgraduate Institute of Medical Education and Research, Chandigarh, India

QUESTION & ANSWER SESSION

PROFERRED PAPER SESSION VII: Head & Neck Tumors
MODOERATORS: Bruce Haughey, MD & Iman Naseri, MD

055 MAGNETIC RESONANCE IMAGING CONFIRMS VASCULARITY OF NASOSEPTAL FLAPS IN THE LATE POST-OPERATIVE PERIOD – Cristine N Klatt-Cromwell, MD (presenter), Deanna M Sasaki-Adams, MD, Matthew C Ewend, MD, Adam M Zanation, MD, University of North Carolina at Chapel Hill

056 SINONASAL CARCINOMAS: NEW EPIDEMIOLOGIC INDICATORS IN STAGING, TREATMENT AND PROGNOSIS – Daniel Gerry, BS (presenter), Eric J Lentsch, MD, Mercer University School of Medicine, Medical University of South Carolina

057 ACUTE VISION LOSS: A POTENTIAL NOVEL INDICATION FOR INTRA-ARTERIAL CHEMOTHERAPY IN THE TREATMENT OF SINONASAL UNDIFFERENTIATED CARCINOMA. (CASE REPORT) – Jeffrey S Pannell, MD (presenter), Vincent Cheung, MD, Kunai M Patel, MD, Alexander A Khalesi, MD MS, The University of California San Diego

QUESTION & ANSWER SESSION

058 ONYX EMBOLIZATION OF CAROTID BODY PARAGANGLIOMAS: AN ADJUNCT TO THE SAFE AND EFFECTIVE SURGICAL RESECTION – Felipe Albuquerque, MD, Cameron McDougall, MD, Robert Spetzler, MD, Andrew Ducruet, MD, Webster Crowley, MD, Yashar Kalani, MD PhD (presenter), Barrow Neurological Institute

059 ADENOID CYSTIC CARCINOMA OF THE NASOPHARYNX – Constance E Teo, MD (presenter), Michael E Kupferman, MD, Ehab Y Hanna, MD, Anderson Cancer Center

060 PROGNOSTIC FACTORS AND CLINICAL OUTCOME IN THE TREATMENT OF EXTERNAL AUDITORY CANAL MALIGNANCIES – Venkatakathrikeyan Chokkalingam, MD (presenter), Robert Guerring, BS, Fred F Telischi, MD, Adrien A. Eshraghi, MD, UM Miller School of Medicine

QUESTION & ANSWER SESSION

061 INVERTED PAPILLOMA: PROGNOSTIC FACTORS WITH IMPLICATIONS FOR RESECTION MARGINS – Giant C Lin, MD (presenter), Mark A Zacharek, MD, Sarah Akkina, BS, Steven Chinn, MD, Jonathan Mchugh, MD, Thomas Carey, PhD, Mark E Prince, MD, University of Michigan

062 ASSESSMENT OF MUCOCELE FORMATION AFTER ENDOSCOPIC NASOSEPTAL FLAP RECONSTRUCTION OF SKULL BASE DEFECTS – Qasim Husain, BS (presenter), Saurin Sanghvi, BS, Pratik A Shukla, MD, Osamah J Choudhry, MD, James K Liu, MD, Jean A Eloy, MD, FACS, University of Medicine and Dentistry of New Jersey – New Jersey Medical School

063 MANAGEMENT OF SINONASAL HEMANGIOPERICYTOMAS: A SYSTEMATIC REVIEW – Muffadal Q Dahodwala, MS, Qasim Husain, BS (presenter), Saurin Sanghvi, BS, Osamah J Choudhry, MD, James K Liu, MD, Jean A Eloy, MD, FACS, University of Medicine and Dentistry of New Jersey – New Jersey Medical School

QUESTION & ANSWER SESSION

PROFERRED PAPER SESSION VIII: Meningiomas/Radiation Therapy
MODOERATORS: Sam Barnett, MD & Robert Malyapa, MD

064 NOVEL ONCOGENIC SMO AND AKT1 MUTATIONS IN MENINGIOMAS – Peleg M Horowitz, MD PhD (presenter), Priscilla K Brastianos, MD, Sandro Santagata, MD, Robert T Jones, BA, Aaron McKenna, Gad Getz, PhD, Keith L Ligon, MD PhD, Emanuele Palescandolo, PhD, Matthew Ducar, Laura MacConaill, Stemmer-Rachamimov Anat, MD, Davi, Brigham and Women’s Hospital, Children’s Hospital Boston, Dana-Farber Cancer Institute, Harvard Medical School, and Broad Institute of MIT and Harvard

065 ROLE OF ADAMTS4 IN MENINGIOMA BONE INVASION – Takafumi Wataya, MD PhD (presenter), Shahrazad Jalali, PhD, Sidney Croul, MD, Gelareh Zadeh, MD PhD FRCP(C), Toronto Western Hospital, University Health Network

066 PROTOPORPHYRIN-IX FLUORESCENCE IN SKULL BASE MENINGIOMAS’ RESECTION – Tang ManHon, MBBS, Carol Goodman, RCN, Harry Moseley, PhD, Sam Eljamel, MBBS Ch MD FRCSr FRCsEd FRCSN ACB (presenter), The University of Dundee

QUESTION & ANSWER SESSION

067 ENDOSCOPIC ENDONASAL SURGERY FOR SUPRASELLAR MENINGIOMAS – Maria Koutourousiou, MD (presenter), Francisco Vaz Guimaraes Filho, MD, John de Almeida, Shirley Su, MD, Juan Fernandez-Miranda, MD, Eric Wang, MD, Carl Snyderman, MD MBA, Paul Gardner, MD, Center for Cranial Base Surgery University of Pittsburgh Medical Center, Pittsburgh, PA, USA
068 HEARING OUTCOMES AFTER PARTIAL TRANSLABYRINTHINE PETROUS APICECTOMY FOR PETROCLIVAL MENINGIOMAS – John W Wood, MD (presenter), Gyan Channer, MD, Jacques J Morcos, MD FRCSEng FRCSEd, Fred F Telisch, MEE MD, University of Miami Department of Otolaryngology; University of Miami Department of Neurosurgery; Kingston Public Hospital, Kingston, Jamaica

069 EXTENDED? RETROSIGMOID APPROACH FOR CEREBELLO-PONTINE ANGLE TUMOURS WITH MIDDLE FOSSA EXTENSION – Sunil K Gupta, MCh (presenter), PGIMER, Chandigarh, India

QUESTION & ANSWER SESSION

070 GAMMA KNIFE EXTEND™ NON-INVASIVE FRACTIONATED RADIOSURGERY: A NOVEL TECHNIQUE FOR THE TREATMENT OF SKULL BASE LESIONS – Christopher R Spencer, MD MS (presenter), Robert E Drzymala, PhD, Keith M Rich, MD, Michael R Chicoine, MD, Amanda Schoenberger, RT, Joseph R Simpson, MD PhD, Clifford Robinson, MD, Washington University School of Medicine in St. Louis

071 FRACTIONATED CYBERKNIFE RADIOTHERAPY FOR SELLR LESIONS – Samuel L Barnett, MD (presenter), Aaron Plitt, BA, Chuxiong Ding, PhD, Robert Timmerman, MD, University of Texas - Southwestern Medical Center

072 MICROSURGICAL TREATMENT FOR TRIGEMINAL SCHWANNOMA – Zhen Zhen, MD (presenter), Junting Zhang, MD, Guijun Jia, MD, Liwei Zhang, MD, Yong Cui, MD, Jie Tang, MD, Beijing TianTan Hospital, Capital Medical University, China

QUESTION & ANSWER SESSION

PROFFERED PAPER SESSION IX: Vascular

MODERATORS: Taro Kaibara, MD & Ajith Thomas, MD

073 THE RELEVANCE OF MICROSURGICAL MANAGEMENT OF NON-BASILAR POSTERIOR CIRCULATION ANEURYSM IN THE CURRENT ERA OF ENDOVASCULAR MANAGEMENT – Ashish Sonig, MD MS MCh (presenter), Ambekar Sudheer, MD MCh, Anil Nanda, MD MPH, LSU health Sciences Center , Shreveport, LA

074 OUTCOME PREDICTION IN BRAINSTEM CAVERNOUS – Silky Chotai, MD (presenter), Songtao Qi, MD PhD, Shuxiang Xu, MD PhD, Nanfang hospital of Southern Medical University, China

075 BYPASS AND FLOW REDUCTION FOR UNCLIPPABLE AND UNCOILABLE VERTEBROBASILAR ANEURYSMS – Yashar Kalani, MD PhD (presenter), Joseph Zabramski, MD, Robert Spetzler, MD, Barrow Neurological Institute

QUESTION & ANSWER SESSION

076 ENDOSCOPIC TRANSPHENOIDAL PITUITARY SURGERY: RESULT, SAFETY AND COST EFFECTIVENESS IN 134 CONSECUTIVE CASES – Yan Michael Li, MD PhD (presenter), Amit Singla, MBBS, Parul Goyal, MD MBA, Walter A Hall, MDMBA, State University of New York Upstate Medical University

077 DISTAL ANTERIOR CEREBRAL ARTERY ANEURYSMS: ADVANTAGES OF BIFRONTAL BASAL ANTERIOR INTERHEMISPHERIC APPROACH OVER UNILATERAL APPROACH – Rajesh Chhabra, MS MCh (presenter), Sunil Gupta, MS MCh, Sandeep Mohindra, MS Mch FRCS, N Khandelwal, MD, Dept of Neurosurgery,PGIMER, Chandigarh

078 CLINICAL CHARACTERISTICS AND LONG TERM OUTCOMES IN RUPTURED POSTERIOR INFERIOR CEREBELLAR ARTERY ANEURYSMS: A COMPARATIVE ANALYSIS – Richard W Williamson, MD (presenter), David Wilson, MD, Adib Abla, MD, Cameron McDougall, MD, Peter Nakaji, MD, Robert Spetzler, MD, Barrow Neurological Institute

QUESTION & ANSWER SESSION

079 THE EFFECT OF GAMMA KNIFE RADIOSURGERY ON THE CAVERNOUS INTERNAL CAROTID ARTERY – Jason P Rahal, MD (presenter), Carl Heilman, MD, John Mignano, MD, Julian Wu, MD, Adel Malek, MD PhD, Tufts Medical Center, Tufts University School of Medicine

080 A PERSISTENT TRIGEMINAL ARTERY COMPLICATING A CRANIOFACIAL RESECTION – Carl Anderson, BS, Wesley Hicks, MD, Vishal Gupta, MD, Adnan Siddiqui, MD PhD, Andrew J Fabiano, MD (presenter), Roswell Park Cancer Institute; SUNY at Buffalo School of Medicine

081 PIPELINE FLOW-DIVERSION TECHNOLOGY FOR THE TREATMENT OF ICA PSEUDOANEURYSMS OF VARYING ETIOLOGY: 3 CASE REPORTS AND REVIEW – Hesham Soliman, MD (presenter), Koji Ebersole, MD, Chris Moran, MD, Paul Camarata, MD, Department of Neurosurgery, Kansas University, Kansas City, Kansas, USA. Department of Radiology, Washington University, St.Louis, Missouri, USA

QUESTION & ANSWER SESSION
### PRoFFERED PAPER SESSION X: General Session

**MODERATORS:** Paul Gardner, MD & Jonathan McJunkin, MD

#### 082 Combined Modality Treatment of Sinonasal SCC – R Millard, Mr, N O’Shea, Ms (presenter), J Siddiqui, Ms, A Sandison, Dr, P Clarke, Mr, Charing Cross Hospital, London UK

#### 083 Giant Cell Tumor of Temporal Bone: Resection and Reconstruction of TMJ – Yiqun Wu, Professor (presenter), Huayi Cheng, Associate Professor, Baohua Fan, Associate Professor, Shanghai 9TH People’S Hospital, Shanghai Jiaotong University School of Medicine

#### 084 Skull Base Complications: Lessons Learned in the First Five Years of Practice – Bharat Guthikonda, MD, Sudheer Ambekar, MD, Chiazo Amene, MD (presenter), Shihao Zhang, MD, Anil Nanda, MD, LSU HSC Shreveport

### QUESTION & ANSWER SESSION

#### 085 Computed Tomography Image-Guided Robotic Surgery: A Preclinical Feasibility Study – Grace C Kim, MD (presenter), Kibwei A McKinney, MD, Charles S Ebert, Jr., MD MPH, Adam M Zanation, MD, University of North Carolina Hospitals-Chapel Hill

#### 086 Facial Nerve Function After the Extended Translabyrinthine Approach – Mia E Miller, MD (presenter), Bill Mastromodos, MD, Roberto A Cueva, MD, Kaiser Permanente, San Diego, CA

#### 087 Use of Posterior Fixation Sutures (Myopexy) to Expand Binocularity: Indications and Limitations – Steven A Newman, MD (presenter), University of Virginia

### QUESTION & ANSWER SESSION

#### 088 The “Extreme-Medial” Endoscopic Endonasal Approach to the Jugular Foramen – Francisco A Vaz Guimaraes Filho, MD MSc (presenter), Victor B Alcocer, MD, Milton M Rastelli Jr, MD, Omar Ramirez, MD, Juan C Fernandez-Miranda, MD, Paul A Gardner, MD, Carl H Snyderman, MD MBA, University of Pittsburgh Medical Center

#### 089 Transmastoid Approach for Surgical Management of Superior Semicircular Canal Dehiscence – Andrea Castellucci, MD (presenter), Gianluca Piras, MD, Cristina Brandolini, MD, Giovanni Carlo Modugno, Prof, ENT Section, Department of Specialistic Surgical and Anesthesiological Sciences, University of Bologna, Italy

#### 090 Ameloblastoma at the Skull Base: A Single Center Experience Over 25 Years – Daniel M Raper, MBBS (presenter), Steven A Newman, MD, University of Virginia

### QUESTION & ANSWER SESSION

5:30 pm – 7:00 pm  
**Welcome Reception in Exhibit Hall**

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### SATURDAY, FEBRUARY 16, 2013

**6:30 am**  
**Breakfast/Registration**

**7:00 am – 8:00 am**  
**BREAKFAST SEMINARS: HOW I DO IT**

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<thead>
<tr>
<th>#5: Endoscopic Approaches to Anterior Lateral Skull Base/ Middle Fossa</th>
<th>Doral Ballroom A</th>
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<tr>
<td><strong>MODERATOR:</strong> Elie Rebeiz, MD</td>
<td><strong>PANELISTS:</strong> Carl Snyderman, MD &amp; Christopher Rassekh, MD</td>
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<tr>
<th>#6: Sellar &amp; Supra Sellar Tumors</th>
<th>Doral Ballroom B</th>
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<tr>
<td><strong>MODERATOR:</strong> Theodore Schwartz, MD</td>
<td><strong>PANELISTS:</strong> Daniel Kelly, MD &amp; Edwards Laws, MD</td>
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<th>#7: Approach to Cavernous Sinuses</th>
<th>Doral Ballroom C</th>
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<tr>
<td><strong>MODERATOR:</strong> Madison Michael, MD</td>
<td><strong>PANELISTS:</strong> Carlos David, MD &amp; Harry Van Loveren, MD</td>
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*The North American Skull Base Society thanks Stryker for its support of this seminar.*

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<tr>
<th>#8: Petrous Apex Lesions</th>
<th>Doral Ballroom D</th>
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<tr>
<td><strong>MODERATOR:</strong> Nik Blevins, MD</td>
<td><strong>PANELISTS:</strong> Hugh Curtin, MD &amp; Paul Gardner, MD</td>
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<tr>
<td>- Radiology-Cholesterol Granulomas, Cholesteotomas, Chondrosarcomas &amp; More</td>
<td><strong>Neurosurgical Approaches</strong></td>
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<tr>
<td>- Neuro-Otological Approaches</td>
<td><strong>Neuro-Otological Approaches</strong></td>
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**WWW.NASBS.ORG**
SCIENTIFIC PROGRAM

8:00 am – 9:00 am  CONCURRENT SESSIONS

#9: Juvenile Nasopharyngeal Angiofibromas  
• Open Approaches  
• Endoscopic Approaches  
• Radiotherapy  
MODERATOR: Richard Wein, MD  
PANELISTS: Donald Annino, MD & Ricardo Carrau, MD

#10: Chordomas  
• Pathological Differentiation of the Chordoma-Chondrosarcoma Spectrum and their Prognostic Implications  
• Radiation Therapies: What is Possible and What is Not?  
• Personal Philosophy, Experience and Outcomes with Open Approaches for Patients with Chordoma?  
• Has Endoscopic Approaches for Patients with Chordoma Improved Outcomes?  
MODERATOR: Michael Gleeson, MD  
PANELISTS: Norbert Liebsch, MD, Chandranath Sen, MD & Adam Zanation, MD

#11: Proffered Paper Session XI: Innovative Technologies & Approaches  
MODERATORS: Ryoyo Akagami, MD & Colin Driscoll, MD  
All oral presentations are 7 minutes in length. All Q&A sessions are 9 minutes.

091 COPEPTIN AS A DIAGNOSTIC MARKER IN THE MANAGEMENT OF NEUROSURGICAL PATIENTS WITH DISTURBANCE OF WATER HOMEOSTASIS – Christian Zweifel, MD (presenter), Bettina Winzeler, MD, Nicole Nigro, MD, Birsen Arici, MD, Martina Bally, MD, Claudine Blum, MD, Christopher Kelly, MD, Luigi Mariani, MD PhD, Sven Berkmann, MD, Hans Landolt, MD PhD, Mira Katan, MD, Philipp Schuetz, MD P, Neurosurgery Division, Toronto Western Hospital; Departments of Endocrinology and Neurosurgery, University Hospital Basel and Aarau

092 DESIGN OF PHYSICAL SURGICAL SIMULATOR FOR DRILLING IN THE EXPANDED ENDONASAL APPROACH TO SKULL BASE – Bruce L Tai, PhD (presenter), Anthony Wang, MD, Jeffrey Plott, Albert Shih, PhD, Erin McKean, MD, Stephen Sullivan, MD, University of Michigan

093 MINIMALLY INVASIVE OCCIPITO-CERVELICAL DECOMPRESSION PRESERVING POSTERIOR MUSCULAR-LIGAMENTOUS TENSION BAND FOR SURGICAL MANAGEMENT OF TYPE I CHIARI MALFORMATION. A PROSPECTIVE CLINICAL AND RADIOLOGICAL STUDY – Roberto Diaz, MD (presenter), Miguel Berbeo, MD MSc, Silvia Tatiana Quintero Oliveros, MD, Jaime Becerra, MD, Juan Carlos Acevedo, MD, Oscar Zorro, MD, Rafael Uribe, MD, Laura Diaz, MD, Juan Carlos Perez, MD, Andres De Leon-Benedetti, B, HOSPITAL UNIVERSITARIO SAN IGNACIO

QUESTION & ANSWER SESSION

094 INTRA-TUMORAL ULTRASONIC ASPIRATOR DELIVERY OF H2O2 – A NOVEL APPROACH TO RESECTING HIGHLY VASCULARIZED INTRACRANIAL TUMORS – Tariq T Lamki, MD (presenter), Mario Ammirati, MD MBA, The Ohio State University

095 THE USEFULNESS OF REALISTIC VIRTUA OPERATION FIELD IN PATINES WITH SKULL BASE DISEASE – Masanori Yoshino, MD (presenter), Tai Chi Kin, MD PhD, Hirofumi Nakatomi, MD PhD, Hiroshi Oyama, MD PhD, Nobuhito Saito, Departments of Neurosurgery, Graduate School of Medicine, The University of Tokyo

096 THERMONAVIGATION IN THE SURGERY OF PARASAGITTAL MENINGIOMAS USING SEMICONDUCTOR VISION INFRARED THERMOGRAPH (SVIT) – Sergey Chernov, PhD MD (presenter), Vyacheslav Stupak, PhD MD, Jamil Rzaev, PhD MD, Valery Belenky, Federal Center of Neurosurgery, Novosibirsk, Russia;Research Institute of Traumatology and Orthopedics, Department of Neurosurgery, Novosibirsk, Russia;“Health-Service” Ltd., Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia

QUESTION & ANSWER SESSION

#12: Expert Case Review: Unknown Cases Presented to Panel for Opinions & Recommendations  
MODERATOR: Daniel Nuss, MD  
PANELISTS: William Couldwell, MD, John Leonetti, MD & Anil Nanda, MD

9:00 am – 9:30 am  Break with Exhibitors  

NORTH AMERICAN SKULL BASE SOCIETY 23RD ANNUAL MEETING
9:30 am  **Honored Guest Lecture: “Clival Lesions: Imaging Characteristics of Benign vs. Non-Benign”**  
Hugh Curtin, MD, Introduction by Carl Heilman, MD

9:50 am  **Top Abstract #2**  
134 FACTORS ASSOCIATED WITH BIOCHEMICAL REMISSION AFTER OPEN TRANSPHENOIDAL SURGERY FOR ACROMEGALY – Hai Sun, MD PhD (presenter), Jessica Brzana, MD, Chris Yedinak, RN, Sakir Gultekin, MD, Johnny Delashaw, MD, Maria Fleseriu, MD, Departments of Neurological Surgery, Medicine and Pathology, and Northwest Pituitary Center, Oregon Health & Science University, Portland, OR, and Department of Neurological Surgery, University of California, Irvine, Orange, CA.

10:00 am  **Comment on Top Abstract #2** – Marvin Bergsneider, MD

10:03 am  **Quality and Performance Measures in an Academic Surgical Practice**  
Randal Weber, MD & Carol Lewis, MD

10:25 am  **Report from the research committee on Registry Development**  
Theodore Schwartz, MD

10:30 am  **Award Presentations (Lifetime Achievement, Top Resident & Medical Student Abstracts)**  
Theodore Schwartz

10:35 am  **Top Abstract #3**  
135 FLL32 STAT3 INHIBITION IS EFFECTIVE AGAINST CHORDOMA IN VITRO – Anthony C Wang, MD (presenter), Waleed M Abuzeid, MD, Shawn L Hervey-Jumper, MD, David M Altshuler, MS, John H Owen, BS, Thomas E Carey, PhD, Mark E Prince, MD, Erin L McKean, MD MBA, Stephen E Sullivan, MD, University of Michigan

10:45 am  **Comment on Top Abstract #3** – Paul Gardner, MD

10:48 am  **Quality Care in Anterior Skull Base Meningioma Surgery**  
• The Best Quality of Care is by Craniotomy – Harry Van Loveren, MD  
• The Best Quality of Care is by the Endoscopic Endonasal Approach – Theodore Schwartz, MD

11:20 am  **Journal Update**  
Dennis Kraus, MD

11:25 am  **Top Abstract #4**  
136 MODIFICATIONS TO THE ENDOSCOPIC APPROACH FOR ANTERIOR SKULL BASE LESIONS IMPROVE POSTOPERATIVE SINONASAL SYMPTOMS – Christopher F Thompson, MD (presenter), Jeffrey D Suh, MD, Adam S Deconde, MD, Yuan Liu, BA, Marvin Bergsneider, MD, Marilene B Wang, MD, David Geffen School of Medicine at UCLA

11:35 am  **Comment on Top Abstract #4** – Dennis Kraus, MD

11:38 am  **“A Quality Based Approach to Skull Base Surgery”**  
Carl Snyderman, MD

12:00 pm – 1:00 pm  **Lunch on own**

1:00 pm – 2:00 pm  **CONCURRENT SESSIONS**

### #13: The Cavernous Sinus  
• Benign Tumors  
• Vascular Lesions-Pipeline and Other Embolization Devices  
• Malignant Tumors  
MODERATOR: Kadir Erkmen, MD  
PANELISTS: Peter Kan, MD, Ali Krisht, MD & Daniel Prevedello, MD

### #14: Adenoid Cystic Carcinoma & The Science of Perineural Invasion: Are Clear Margins Attainable for Advanced Disease?  
• Surgical Management  
• Radiation  
• Perineural Invasion  
MODERATOR: Patrick Gullane, MD  
PANELISTS: Brian Nussenbaum, MD, Richard Wong, MD & Eugene Yu, MD

### #15: Acoustic Tumors: Managing Facial Paralysis  
• Timing of Re-Animation  
• Static Slings  
• Gold Weights/Tarsorrhaphy  
• Facial Re-Animation Techniques & Success Rates  
• Electrical and Neurological Testing of Facial Paralysis  
MODERATOR: Fred Telischi, MD  
PANELISTS: Simon Angeli, MD, Ram Ayyar, MD, Greg Branham, MD & Deidre Marshall, MD
## #16: CSF Leaks/Meningo-encephaloceles & SCC Dehiscence

**Doral Ballroom D**

- Temporal Bone CSF Leaks
- Meningo-encephaloceles
- Superior Canal Dehiscence

**MODERATOR:** Daniel Pieper, MD  
**PANELISTS:** Seilesh Babu, MD, Philippe Pasche, MD & Eric Wang, MD

### 2:00 pm – 3:30 pm  
**PROFFERED PAPER SESSIONS**

**All oral presentations are 7 minutes in length. All Q&A sessions are 9 minutes.**

### PROFFERED PAPERS XII: Endoscopic Approaches/Anterior Skull Base

**Doral Ballroom A**

**MODERATORS:** Philip Theodosopoulos, MD & Allan Vescan, MD

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<tr>
<td>097</td>
<td>ENDOSCOPIC AND OPEN RESECTION OF SPHENOID SINUS MENINGOENCEPHALOCELES WITH REPAIR OF SKULL BASE DEFECTS</td>
<td>Kelli L Crabtree, MD, Nick Rockefeller, Paul J Camarata, MD, Kevin J Sykes, MPH, Larry A Hoover, MD, University of Kansas Medical Center</td>
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<td>098</td>
<td>A COMPARISON OF OPERATIVE EXPOSURE BETWEEN THE LE FORT I OSTEOTOMY AND THE EXCLUSIVE ENDOSCOPIC TRANSNASAL APPROACH FOR MIDDLE AND LOWER CLIVAL LESIONS</td>
<td>Chris Sanders Taylor, MD (presenter), P V Theodosopoulos, MD, L Zimmer, MD, J T Keller, PhD, University of Cincinnati</td>
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<td>099</td>
<td>INSTITUTIONAL REVIEW AND IDENTIFICATION OF INDICATIONS FOR ENDOSCOPIC EXPANDED ENDONASAL VERSUS CRANIOTOMY APPROACH TO ANTERIOR SKULL BASE MENINGIOMAS</td>
<td>Osama H Khan, MD MSc (presenter), Marko Skrtic, PhD, Damian Holliman, Boris Krischek, MD PhD, Allan Vescan, MD, Fred Gentili, MD, Gelareh Zadeh, MD PhD, 1 - Division of Neurosurgery, University Health Network, Toronto Western Hospital, University of Toronto, Ontario, Canada, 2 - Department of Otolaryngology-Head and Neck Surgery, Mount Sinai Hospital, University of Toronto, Ontario, Canada</td>
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### QUESTION & ANSWER SESSION

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<tr>
<td>100</td>
<td>DIAGNOSTIC AND SURGICAL APPROACH TO ANTERIOR SKULL BASE CSF LEAKS IN A RHINOLOGY PRACTICE</td>
<td>Edward Hepworth, MD (presenter), Anne K Cosgriff, MD, David Solsberg, MD, Colorado Sinus Institute</td>
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<td>101</td>
<td>NODAL RECURRENT IN OLFACTORY NEUROBLASTOMA</td>
<td>R Millard, Mr (presenter), N O’Shea, Ms, H Powell, Mr, S Yalamanchili, Ms, A Sandison, Dr, P Clarke, Mr, Charing Cross Hospital London, UK</td>
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<td>102</td>
<td>BEYOND THE NASOSEPTAL FLAP: OUTCOMES AND PEARLS WITH SECONDARY VASCULAR FLAPS IN SKULL BASE RECONSTRUCTION</td>
<td>Mihir R Patel, MD (presenter), Robert Taylor, BS, Trevor C Hackman, MD, Deanna M Sasaki-Adams, MD, Matthew C Ewens, MD, Adam M Zanation, MD, University of North Carolina at Chapel Hill - School of Medicine</td>
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### PROFFERED PAPERS XIII: Head & Neck Tumors & General Topics

**Doral Ballroom B**

**MODERATORS:** Christopher Rasshek, MD & Randal Weber, MD

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<tr>
<td>106</td>
<td>SYSTEMATIC ANALYSIS OF DIAGNOSTIC MOLECULAR MARKERS FOR INTRACRANIAL CERM CELL TUMORS</td>
<td>Daniel T Nagasawa, MD (presenter), Michael Sun, BS, Andy Trang, BS, Andrew Yew, MD, Yinn Cher Ooi, MD, R. Aaron Robison, MD, Gabriel Zada, MD, Isaac Yang, MD, University of California Los Angeles, Department of Neurosurgery; University of Southern California, Department of Neurological Surgery</td>
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<td>107</td>
<td>SINOSAL CHONDROSARCOMA: A CASE SERIES AND REVIEW OF THE LITERATURE</td>
<td>Josh C Meier, MD (presenter), Aaron K Remenschneider, MD, Kyle Chambers, Alice C Lin, MD, Marc W Herr, MD, Stacey T Gray, MD, Derrick T Lin, MD, Massachusetts Eye and Ear Infirmary</td>
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108 HER2/NEU AS A NEW THERAPEUTIC TARGET OF SINONASAL UNDIFFERENTIATED CARCINOMA – Yoko Takahashi, PhD (presenter), Diana Bell, MD, Ehab Y Hanna, MD, Jeffrey N Myers, MD PhD, Michael E Kupferman, MD, The University of Texas MD Anderson Cancer Center

QUESTION & ANSWER SESSION

109 SURVIVAL AND RECURRENCE FOR PATIENTS UNDERGOING SURGERY OF SKULL BASE INTRACRANIAL METASTASES – Daniele Rigamonti, Michael Purttel, Jon Weingart, Alessandro Olivi, Gary Gallia, Michael Lim, Henry Brem, Alfredo Quinones-Hinojosa, Kaisorn L Chaichana (presenter), Johns Hopkins School of Medicine

110 THE SAFETY AND FEASIBILITY OF EXTENDED ENDONASAL APPROACHES TO ORBITAL CELLULITIS IN INFANTS AND TODDLERS – Daniel W Fis, MD (presenter), Mark A Vecchiotti, MD, Andrew R Scott, MD FACS, Tufts Medical Center

111 3D MICROSURGICAL AND ENDOSCOPIC ANATOMY OF DIFFERENT SURGICAL APPROACHES TO THE INTERPEDUNCULAR FOSSA AND DORSUM SELLA: A CADAVERIC STUDY – Antonella Medda, MD, Alexander I Evins, BS, Philip E Stieg, MD PhD, Antonio Bernardo, MD (presenter), Weill Cornell Medical College

QUESTION & ANSWER SESSION

112 INTEGRATED INTRA-OPERATIVE FLAT-PANEL CT, VASCULAR IMAGING AND NAVIGATION IN SKULL BASE SURGERY: AN INITIAL EXPERIENCE IN THE GENEVA HYBRID OPERATING SUITE – Ivan Cabrilo, MD, Mark Kotowski, MD, Philippe Bijlenga, MD PhD, Ivan Radovanovic, MD PhD (presenter), Karl Schaller, MD, Neurosurgery Division, Geneva University Hospitals

113 LABORATORY INVESTIGATION OF 3-D VERSUS 2-D VISUALIZATION IN ENDOCUTIC SKULL BASE SURGERY – M Bergsneider, MD (presenter), J Hauptman, MD PhD, A Cutler, MD, M B Wang, MD, UCLA

114 PURELY ENDOCUTIC VASCULAR DECOMPRESSION FOR TRIGEMINAL NEURALGIA: CLINICAL OUTCOMES AND TECHNICAL NOTE – Pradeep Setty, DO (presenter), St. John Providence Hospital

QUESTION & ANSWER SESSION

115 ACELLULAR DERMAL ALLOGRAFT FOR THE PREVENTION OF CEREBROSPINAL FLUID LEAK AFTER TRANSSEPTAL APPROACH TO PITUITARY ADENOMAS – Brandon G Gaynor, MD (presenter), Ronald J Benveniste, MD PhD, Roy Casiano, MD, Seth Lieberman, MD, Jacques J Morcos, MD FACS eng FRCS ed, University of Miami Miller School of Medicine

116 A MINIMAL ACCESS FAR-LATERAL APPROACH TO FORAMEN MAGNUM PATHOLOGY – James Kryczanski, MD (presenter), Carl Heilman, MD, Tufts Medical Center Department of Neurosurgery

117 REPEAT ENDOCUTIC TRANSSEPTAL SURGERY FOR ACRROMEGLY: REMISSION AND COMPLICATIONS – Thomas J Wilson, MD, Erin L McKean, MD, Ariel L Barkan, MD, William F Chandler, MD, Stephen E Sullivan, MD (presenter), University of Michigan

QUESTION & ANSWER SESSION

118 ENDOCUTIC ENDONASAL SURGERY FOR CRANIOPHARYNGIOMAS: SURGICAL OUTCOME IN 64 PATIENTS – Maria Koutourousiou, MD (presenter), Francisco Vaz Guimaraes Filho, MD, John de Almeida, MD, Shirley Su, MD, Juan Fernandez-Miranda, MD, Eric Wang, MD MBA, Carl Snyderman, MD MBA, Elizabeth Tyler-Kabara, MD PhD, Paul Gardner, MD, Center for Cranial Base Surgery University of Pittsburgh Medical Center, Pittsburgh, PA, USA

119 POSTOPERATIVE MANAGEMENT OF THE HYPOTHALAMIC-PITUITARY-ADRENAL AXIS IN PATIENTS UNDERGOING RESECTION OF SELAR-SUPRASELLAR TUMORS – Adam M Olzewski, BS (presenter), Tyler J Kenning, MD, Chris M Spearman, BS, Saurabh Singhal, BA, Marc R Rosen, MD, James J Evans, MD, Thomas Jefferson University Hospital, Philadelphia, Pennsylvania; Albany Medical Center, Albany, New York

120 ROUTINE MRI ASSESSMENT IMMEDIATELY FOLLOWING TRANSSEPTAL RESECTION OF NON-FUNCTIONAL PITUITARY MACROADENOMAS DOES NOT ALTER THE COURSE OF CLINICAL MANAGEMENT – Christopher J Farrell, MD (presenter), Mary Petrone, BA, Sonia Teufack, MD, Curston Nyquist, MD, Mark Friedel, MD, Tyler J Kenning, MD, Donald D Beahm, MD, Marc R Rosen, James J Evans, MD, Thomas Jefferson University

QUESTION & ANSWER SESSION

121 THE VALUE OF POSTOPERATIVE 3T MR IMAGING FOLLOWING ENDOCUTIC ENDONASAL SELAR/SUPRASELLAR SURGERY – Douglas L Stofko, DO (presenter), Gregory Moore, MD, Thomas Nickles, MD, Amir R Dehdashti, MD FACS, Department of Neurosurgery and Division of Neuroradiology, Geisinger Medical Center, Danville, Pennsylvania

122 PSEUDOCAPSULAR REMOVAL OF PITUITARY TUMORS LOWERS INCIDENCE OF INTRAOPERATIVE CEREBROSPINAL FLUID LEAK – Sergei Tertorov, MD (presenter), Marvin Bergsneider, MD, Department of Neurosurgery, David Geffen School of Medicine, University of California Los Angeles

123 THE USE OF TELEOPERATED CONCENTRIC TUBE ROBOTS FOR TRANSSEPTAL PARASELLAR SURGERY – Kyle Weaver (presenter), Robert Webster, Philip Swaney, Jessica Burgner, Paul Russell, Hunter Gilbert, James Bekeny, Richard Hendrick, Vanderbilt University

QUESTION & ANSWER SESSION
**PROFERRED PAPERS XV: Vestibular Schwannomas**

**MODERATORS:** Nik Blevins, MD & Carlos David, MD

**124 SURGICAL TREATMENT OF SMALL VESTIBULAR SCHWANNOMAS. DOES THIS REMAIN A GOOD OPTION?** – Amjad N Anaiz, MD (presenter), Vincent DiNapoli, MD PhD, Myles Pensak, MD, Philip Theodosopoulos, MD, University of Cincinnati

**125 VESTIBULAR SCHWANNOMA, THREE DECADES OF EVOLUTION IN MANAGEMENT STRATEGY** – Cormac Gavin, MD FRCS (presenter), Robert Bradford, MD FRCS, The Skull Base Service, Brain Tumour Unit, The National Hospital For Neurology

**126 QUALITY OF LIFE DIFFERENCES BY TREATMENT GROUPS FOR ACOUSTIC NEUROMA PATIENTS** – Eamon J McLaughlin, MD (presenter), Douglas C Bigelow, MD, Michael Y Lee, MD, Michael J Ruckenstein, MD, Department of Otorhinolaryngology, University of Pennsylvania Health System

**QUESTION & ANSWER SESSION**

**127 THE INFLUENCE OF PRIMARY SURGICAL RESECTION ON LONG-TERM VESTIBULAR SCHWANNOMA RECURRENCE AND PROGRESSION** – W C Singleton, MRCS (presenter), R Ricks, MRCS, D L Baldwin, FRCS, R J Nelson, FRCS, Departments of Neurosurgery, and of Otolaryngology, Head & Neck Surgery, North Bristol NHS Trust, Bristol, UK

**128 FACTORS AFFECTING DISCHARGE DISPOSITIONS IN NF-2 PATIENTS FOLLOWING SURGERY FOR ACOUSTIC NEUROMA-A UNITED STATES NATIONALWIDE INPATIENT DATA SAMPLE STUDY (2005-2009)** – Ashish Sonig, MS MCh (presenter), Benjamin Brown, MD, Sudheer Ambekar, MD, Anil Nanda, MD MPH, LSU health Sciences Center, Shreveport, LA

**129 DOES NATURAL HISTORY OF VESTIBULAR SCHWANNOMAS GOVERN TREATMENT RESPONSE AND COMPLICATIONS TO RADIOSURGERY?** – Soroush Larjani, HBSc, Hooman Pebdani, MD, Eric Monsalves, HBSc, Caroline Hayhurst, MD, Boris Krischek, MD, Fred Gentili, MD, Michael Cusimano, MD PhD, Normand Laperriere, MD, Gelareh Zadeh, MD PhD (presenter), University of Toronto, University Health Network

**QUESTION & ANSWER SESSION**

**130 SURGICAL MANAGEMENT OF VESTIBULAR SCHWANNOMAS AFTER FAILED RADIATION** – A Zomorodi, MD (presenter), Y Nonaka, MD, A Friedman, MD, J Sampson, MD, T Fukushima, MD, Duke University Medical Center

**131 MANAGEMENT OF COMPLICATIONS IN CEREBELLOPONTINE ANGLE SURGERY IN THE SITTING POSITION** – Nevo Margakit, MD (presenter), Amir Hadani, md, Yuval Shapira, Tel Aviv Medical Center

**132 QUALITY-OF-LIFE COMPARING OBSERVATION, MICROSCOPY, AND RADIOSURGERY FOR SMALL-TO-MEDIUM SIZED VESTIBULAR SCHWANNOMA USING A VALIDATED DISEASE-SPECIFIC INSTRUMENT** – Matthew L. Carlson, MD (presenter), Colin L Driscoll, MD, Brian A Neff, MD, Nicole M Tombers, BA, Molly J Sullan, BA, Bruce E Pollock, MD, Michael J Link, MD, Mayo Clinic, Rochester, MN

**QUESTION & ANSWER SESSION**

**3:30 pm – 4:00 pm**

Break with Exhibitors

**4:00 pm – 4:20 pm**

CPT Coding

Kim Pollack, RN, MBA, CPC

**4:20 pm – 5:00 pm**

Skull Base Jeopardy

MC: John Golfinos, MD

TEAM ONE: Franco DeMonte, MD & Colin Driscoll, MD & Dennis Kraus, MD

TEAM TWO: Fred Gentili, MD, Allan Vescan, MD & Gelareh Zadeh, MD

TEAM THREE: Matthew Carlson, MD, Jaime Van Gompel, MD & Mike Link, MD

**6:30 pm – 10:30 pm**

Social Event: Havana Nights

Come join us by the lovely Doral Spa for this year’s latin themed event. Enjoy dinner and drinks and live music. This year’s social event will include our very own personal cigar roller, salsa dancers, poker, black jack and dominoes gaming tables!

**SUNDAY, FEBRUARY 17, 2013**

**7:30 am**

Breakfast/Registration

**8:00 am – 9:00 am**

BREAKFAST SEMINARS: HOW I DO IT

**#9: Far Lateral Approach**

**MODERATOR:** Siviero Agazzi, MD

**PANELISTS:** Robert Cueva, MD & Chandranath Sen, MD
#10: Jugular Foramen  
MODERATOR: James Kryzanski, MD  
PANELISTS: James Liu, MD & Jon Robertson, MD

#11: Petroclival Meningiomas  
MODERATOR: Vikram Prabhu, MD  
PANELISTS: Johnny Delashaw, MD & Jacques Morcos, MD

### CONCURRENT SESSIONS

#### #17: NF2  
- Hearing in NF2 Patients - Preservation & Augmentation  
- Chemotherapy for NF2  
- Case Presentations for NF-2  
MODERATOR: Fred Barker  
PANELISTS: Fred Barker, MD, Marlen Hanson, MD & John Golfinos, MD

#### #18: Benign Tumors of the Anterior Skull Base Optimizing Outcome  
- Microsurgical Transcranial Approaches  
- Endoscopic Techniques  
- Managing the Optic Canal  
MODERATOR: Steven L. Giannotta, MD  
PANELISTS: Nevo Margalit, MD, James Evans, MD & Madison Michael, MD

#### #19: Trigeminal Schwannomas  
- Microsurgical Transcranial Approaches  
- Endoscopic Approaches  
- Radiosurgery  
MODERATOR: A. Samy Youssef, MD  
PANELISTS: Mario Ammirati, MD & Vijay K. Anand, MD

#### #20: Expert Case Review. Unknown Cases Presented to Panel for Opinions & Recommendations  
MODERATOR: Amir Dehdashti, MD  
PANELISTS: Fred Gentili, MD, Ehab Hanna, MD & Daniel Nuss, MD

10:00 am – 10:30 am  
**Break with Exhibitors**

10:30 am – 12:45 pm  
**PLENARY SESSION**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Description</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>10:30 am</td>
<td>Quality Care for Anterior Skull Base Malignancy</td>
<td>Franco Demonte, MD</td>
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<tr>
<td>10:30 am</td>
<td>The Best Quality Surgery is Achieved Using a Craniotomy</td>
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<tr>
<td>10:50 am</td>
<td>The Best Quality Surgery is using an Endoscopic Only Approach</td>
<td>Ehab Hanna, MD</td>
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| 11:10 am   | Top Abstract #5  
137 ASSESSMENT OF THE PERFORMANCE OF FROZEN SECTION MARGIN ANALYSIS DURING ESTHESIONEUROBLASTOMA SURGERY – Masaru Ishii, MD PhD (presenter), Justin A Bishop, MD, Gary Gallia, MD PhD, Johns Hopkins University | Ehab Hanna, MD                                                            |
| 11:20 am   | Comment on Top Abstract #5 – Michael Link, MD                                        |                                                                           |
| 11:23 am   | Top Abstract #6  
138 TRANSORAL ROBOTIC SURGERY FOR PARAPHARYNGEAL SPACE MASSES: INDICATIONS AND RESULTS – Christopher H Rashek, MD (presenter), Shayanne A Lajud, MD, Courtney B Shires, MD, Laurie A Loeven, MD, Ara A Chalian, MD, Gregory S Weinstein, MD, Bert W O’Malley, Jr MD, University of Pennsylvania Department of Otorhinolaryngology-Head and Neck Surgery | Ehab Hanna, MD                                                            |
| 11:33 am   | Comment on Top Abstract #6 – Ehab Hanna, MD                                           |                                                                           |
| 11:36 am   | 3D Anatomy Talk  
Juan Carlos Fernandez-Miranda, MD                                                   |                                                                           |

12:30 pm  
**Meeting Adjourned**
139 A CASE OF ISOLATED INTRACRANIAL ROSAI DORFMAN DISEASE PRESENTING AS A MIDDLE FOSSA MASS – William R Stetler, Stephen Sullivan (presenter), Erin McKean, University of Michigan

140 CELEBRATING THE GOLDEN ANNIVERSARY OF ANTERIOR SKULL BASE SURGERY: REFLECTIONS ON THE PAST 50 YEARS AND ITS HISTORICAL EVOLUTION – Smrutik Patel, BA (presenter), Qasim Husain, BS, Resha S Soni, BA, Amit A Patel, MD, Jean Anderson Eloy, MD FACS, James K Liu, MD, Departments of Neurological Surgery and Otolaryngology-Head and Neck Surgery; Center for Skull Base and Pituitary Surgery, Neurological Institute of New Jersey, University of Medicine adn Dentistry of New Jersey, New Jersey Medical School, Newark, NJ

141 SYNCHRONOUS OLFATORY NEUROBLASTOMA AND OLFATORY GROOVE MENINGIOMA – James A Owusu, MD (presenter), Rammu Tummala, MD, Emiro E Caicedo, MD, University of Minnesota

142 OBSTRUCTIVE SLEEP APNEA IN PATIENTS UNDERGOING ENDOCOSPIC SURGICAL REPAIR OF CEREBROSPINAL FLUID RHINORRHEA – Gitanjali M Fleischman, MD MS (presenter), Adam M Zanation, MD, Emily E Cohn, MSIV, Charles S Ebert, Jr, MD MPH, Brent A Senior, MD, Department of Otolaryngology/Head and Neck Surgery, University of North Carolina Hospitals, Chapel Hill, NC 27514, USA

143 MANAGEMENT OF INVASIVE FUNGAL SINUSITIS WITH INTRACRANIAL INVOLVEMENT – Emily E Cohn, BSPh (presenter), Travis R Newberry, MD, Kenneth D Rodriguez, MD, Deanna M Sasaki-Adams, MD, Adam M Zanation, MD, 1 University of North Carolina School of Medicine, Chapel Hill, NC 27514, USA 2 Department of Otolaryngology/Head and Neck Surgery, 3 Department of Neurosurgery, University of North Carolina Hospitals, Chapel Hill, NC 27514, USA

144 HIV PRESENTING AS INFLAMMATORY PSEUDOTUMOR OF THE SKULL BASE: CASE REPORT AND REVIEW OF THE LITERATURE – Ralph Abi Hahem, MD (presenter), Brian Carnet, BS, Zoukaa B Sargi, MD, University of Miami, Miller school of Medicine, Department of Otolaryngology–Head and Neck Surgery

145 ANTERIOR CRANIAL FOSSA DEFECTS: TECHNICAL ACCOUNT OF REPAIR WITH AN OPEN, NON-BUTTRESSED APPROACH – Chiazo Amene, MD (presenter), Papireddy Bollam, MD, Minervia Nixon, MD, Anil Nanda, MD, Bharat Guthikonda, MD, Department of Neurosurgery, Louisiana State University Health Sciences Center- Shreveport, Louisiana

146 SMALL ROUND BLUE CELL TUMORS WITH ANTERIOR SKULL BASE INVASION – Jason Rudman (presenter), Christopher Fundakowski, MD, Zoukaa Sargi, MD, University of Miami - Miller school of medicine

147 SKULL BASE PLASMACYTOMAS: SURGICAL APPROACH AND REVIEW OF MANAGEMENT – Wajd N Al-Holou, MD (presenter), William R Stetler Jr, MD, Thomas J Wilson, MD, Steven Chinn, MD, Erin L McKean, MD, Stephen E Sullivan, MD, University of Michigan

148 TRANSNASAL ENDOCOSPIC TECHNIQUE FOR LARGE PEDIATRIC CLIVAL CHORDOMA WITH INTRADURAL EXTENSION – John Capua, DO (presenter), Eric Stiner, MD, Arrowhead Regional Medical Center, Kaiser Permanente Fontana Hospital

149 ENDOCOSPIC ENDONASAL RESECTION OF CLIVAL CHORDOMAS: A CASE SERIES – David R Ormond, MD (presenter), Sarah Wise, MD, Nelson Oyesiku, MD, Alpen Patel, MD, Constantinos G Hadjipanayis, MD, Emory University School of Medicine

150 IS TUMOR SEEDING A RISK FACTOR FOR ENDOCOSPIC ENDONASAL RESECTION OF CLIVAL CHORDOMAS? – Alfred Marc C Iloreta, MD (presenter), Curston G Nyquist, MD, Mark Friedel, MD, Mark R Rosen, MD, Christopher J Farrell, MD, James J Evans, MD, Thomas Jefferson University

151 ENDOCOSPIC REPAIR OF LATERAL SPHENOID SINUS MENINGOENCEPHALOCELES – Constanza J Valdes, MD (presenter), Thanh Ha, MD, Peter-John Wormald, MD FRCS FRACS FCS SA, Stephen Floreani, MBBS FRACS, Denis Sirhan, MD FRCS, Marc A Tewfik, MDCM MSc FRCSC, McGill University. The University of Adelaide

152 ENDOCOSPIC TRANSNASAL APPROACH FOR RESECTION OF A RECURRING ANTERIOR SKULL BASE ANEURYSMAL BONE CYST: A CASE REPORT AND REVIEW OF THE LITERATURE – Sandra Ho, BA (presenter), Tyler Kenning, MD, James Evans, MD, Thomas Jefferson University

153 A NOVEL TECHNIQUE FOR PEDICLED NASOSEPTAL FLAP TAKEDOWN IN REVISION SKULL BASE SURGERY – Javan J Nation, MD (presenter), Mahdi Shkoukani, MD, Murali Guthikonda, MD, Adam Folbe, MD, Wayne State University

154 ONE-PIECE MODIFIED GASKET SEAL TECHNIQUE – Aaron P Wessell, BS (presenter), Ameet Singh, MD, Zachary Litvack, MD MCR, Department of Neurosurgery
155 FULLY ENDOSCOPIC TRANSSSPHENOIDAL SURGERY - INSTITUTIONAL EXPERIENCE AT A SINGLE CENTER IN BOGOTÁ, COLOMBIA – Rafael Uribe, MD (presenter), Oscar Feo, MD, Alfredo Herrera, MD, Juan Carlos Gomez, BS, Andres Vargas, BS, Hospital Universitario San Ignacio, Pontificia Universidad Javeriana

156 FIELD OF VIEW COMPARISON BETWEEN 2D AND 3D ENDOSCOPY – Jamie J Van Gompel, MD (presenter), Mark H Tabor, MD, A. Samy Youssef, MD, Harry R van Loveren, MD, Siviero Agazzi, MD, University of South Florida

157 3D ENDOSCOPE-ASSISTED MICROSURGICAL ANATOMY OF A COMBINED SUBTEMPORAL PRESIGMOID TRANSTENTORIAL APPROACH – Alexander I Evins, Alvaro, MD (presenter), Antonio Bernardo, MD, Philip E Stieg, MD PhD, Weill Cornell Medical College

158 UTILITY OF A ROTATION-SUCTION MICRODEBRIDER FOR TUMOR REMOVAL IN ENDOSCOPIC ENDONASAL SKULL BASE SURGERY: EXPERIENCE IN 32 PATIENTS – Smruti K Patel, BA (presenter), Qasim Husain, BS, Arjuna B Kuperan, MD, Jean Anderson Eloy, MD FACS, James K Liu, MD, Departments of Neurological Surgery and Otolaryngology-Head and Neck Surgery; Center for Skull Base and Pituitary Surgery, Neurological Institute of New Jersey, University of Medicine and Dentistry of New Jersey, New Jersey Medical School, Newark, NJ

159 ENDONASAL MANAGEMENT OF A PEDIATRIC OCCULT RETROCLIVAL ABSCESS – Jeffrey C Rastatter, MD (presenter), Stephen R Hoff, MD, Arthur DiPatri, MD, Tord Alden, MD, Ann and Robert H. Lurie Children’s Hospital of Chicago, 225 E. Chicago Ave, Chicago, IL 60611

160 ENDOSCOPIC TRANSSSPHENOIDAL SURGERY VERSUS MEDICAL THERAPY FOR THE TREATMENT OF MICROPROLACTINOMA: A COST-EFFECTIVENESS ANALYSIS – Pinakin R Jethwa, MD (presenter), Tapan D Patel, BS, Aaron F Hajart, MS, Jean A Eloy, MD, James K Liu, MD, UMDNJ - New Jersey Medical School

161 OUTCOME OF TRANSCANALICULAR ENDONASAL DIODE LASER ASSISTED DACRYOCYSTORHINOSTOMY IN PATIENTS OF CHRONIC DACRYOCYSTITIS – H C Taneja, MS (presenter), Neha Jain, MS, Lakshmi Vaid, MS, UNIVERSITY COLLEGE OF MEDICAL SCIENCES

162 ENDOSCOPIC GRADUATED MULTI-ANGLE MULTI-CORRIDOR RESECTION OF JUVENILE NASOPHARYNGEAL ANGIOFIBROMA – James K Liu, MD (presenter), Qasim Husain, BS, Saurin Sanghvi, BS, Muhammed N Khan, BA, Chirag R Patel, MD, Jean Anderson Eloy, MD FACS, University of Medicine and Dentistry of New Jersey- New Jersey Medical School

163 THE COMPOSITE MUCOSAL CARTILAGINOUS SEPTAL FLAP FOR ENDOSCOPIC SKULL BASE RECONSTRUCTION – Marc A Tewfik, MD MSc FRCS (presenter), Peter-John Wormald, MD FRCS FRACS, McGill University Health Centre & Adelaide University

164 PEDICLED MUCOCHONDRALE NASOSEPTAL FLAP FOR RECONSTRUCTION OF ORBITAL FLOOR DEFECT Evelyne Kalyoussef, MD (presenter), Richard F Schmidt, BA, Zain Boghani, BS, Saurin Sanghvi, BS, Jean A Eloy, MD FACS, James K Liu, MD, University of Medicine and Dentistry of New Jersey – New Jersey Medical School

165 ENDOSCOPIC-ASSISTED MICROSURGICAL RESECTION OF A PTEROCILIVAL ARTIFICIAL TUMOR MODEL WITH RETROSEellar EXTENSION USING A RETROsIGMOID APPROACH: A CADEAVERIC STUDY AND ANALYSIS OF SUPRATENTORIAL WORKING AREA – Varun Kshettry, MD (presenter), Silky Chotai, MD, Jack Hou, BS, Tariq Lamki, MD, Mario Ammirati, MD MBA, Ohio State University, Cleveland Clinic

166 RECONSTRUCTIVE CHALLENGES IN THE EXTENDED ENDOSCOPIC TRANSCLIVAL APPROACH – Ameet R Kamat, MD (presenter), Gregg Goldstein, MD, James N Palmer, MD, John YK Lee, MD, Jason C Newman, MD, Nithin D Adappa, MD, University of Pennsylvania

167 ASSESSMENT OF FRONTAL LOBE SAGGING AFTER ENDOSCOPIC ENDONASAL TRANSCRIBRIFORM RESECTION OF ANTERIOR SKULL BASE TUMORS: IS RIGID STRUCTURAL RECONSTRUCTION OF THE CRANIAL BASE DEFECT NECESSARY? – Jean Anderson Eloy, MD FACS (presenter), Qasim Husain, BS, Smruti K Patel, BA, Pratik A Shukla, MD, Osama K Choudhry, MD, Rahul Singh, MD, James K Liu, MD, University of Medicine and Dentistry of New Jersey- New Jersey Medical School

170 PRELIMINARY RELIABILITY AND VALIDITY OF THE SKULL BASE INVENTORY (SBI) QUALITY OF LIFE QUESTIONNAIRE – John R de Almeida, MD MSc (presenter), Allan D Vescan, MD, Carl H Snyderman, MD MBA, Ian J Witterick, MD MSc, University of Toronto, University of Pittsburgh Medical Center

171 PEDICLED MUCOCHONDRALE NASOSEPTAL FLAP FOR RECONSTRUCTION OF ORBITAL FLOOR DEFECT – Evelyne Kalyoussef, MD (presenter), James K Liu, MD, Jean Anderson Eloy, MD, University of Medicine and Dentistry of New Jersey- New Jersey Medical School

172 ENDOSCOPIC TRANSPTERYGOID APPROACH FOR SPONTANEOUS MENINGOENCEPHALOCELE OF THE SPHENOID WING WITH LATERAL SPHENOID SINUS EXTENSION – Abdulrazag Ajlan, MD (presenter), Achal Achrol, MD, Ethan Soudry, MD, Peter H Hwang, MD, Griffith Harsh, MD, Stanford University
173 Endoscopic Endonasal Aneurysm Clip Ligation: An Anatomical Feasibility Study – Oszkar Szentirmai, MD (presenter), Lino Mascharenas, MD, Al Amin Salek, MD, Phil Stieg, MD, Theodore Schwartz, MD, New York Presbyterian/Weill Cornell Medical Center

174 The Endoscopic Paramandibular Window to the Infra-temporal Fossa: Surgical Anatomy and Expanding Clinical Indications – K Boahene, MD (presenter), S Raza, MD, M Ishii, M Lim, D Reh, G Gallia, A Quinone-Hinojosa, The Johns Hopkins University school of Medicine

175 Robotic Navigation of the Infra-temporal Fossa and Midline Cranial Base – Kofi Boahene, MD (presenter), Raymond Blanco, Jeremy Richmon, MD, The Johns Hopkins University school of Medicine

176 Transorbital Endoscopic Approach to the Lateral Cavernous Sinus – Rohan Ramakrishna, MD, Randall Bly, MD (presenter), Manuel Ferreira, MD, Kristen Moe, MD, University of Washington

177 Endoscope-Assisted Transmastoid Infralabyrinthine Drainage of Petrous Apex Cholesterol Granuloma – Alfred Marc Illoreta, MD (presenter), Anthony Del Signore, MD, Sujana Chandrasekhar, MD, Mount Sinai School of Medicine

178 Endoscopic Treatment of Cranio-orbital Fractures – Vladimir Krylov, Oleg Levchenko, Ivan Godkov, Alik Kalandari (presenter), N.V. Sklifosovskii Research Institute of Emergency Medical Care

179 MOYA – MOYA Disease: Assessment of Neurological and Neuropsychological Outcome Following Revascularization Procedures – Sunil K Gupta, MCh (presenter), Ashish Agarwal, MCh, Manju Mohanty, PGIMER, Chandigarh, India

180 Unusual Presentation of Bilateral Neurenteric Cyts in the Craniovertebral Junction in a 10-Year-Old Girl: Case Illustration and Review – Smruti K Patel, BA (presenter), Ada Baisre, MD, James K Liu, MD, Departments of Neurological Surgery and Pathology and Laboratory Medicine; Center for Skull Base and Pituitary Surgery, Neurological Institute of New Jersey, University of Medicine and Dentistry of New Jersey, New Jersey Medical School, Newark, NJ

181 Massive Solitary Fibrous Tumor (SFT) of the Infra-temporal and Pterygomaxillary Fossa Treated by Combined Endoscopic Approach – Francois Cloutier, MD (presenter), Genevieve Lapointe, MD FRCSC, Sylvie Nadeau, MD FRCSC, University Laval

182 Outcome Analysis of Surgical Treatment of Craniovertebral Junction Tumors – Yury A Shulev (presenter), Vitaly Stepanenko, Ovanes Akobyan, MD, Alexander V Trashin, MD, City Hospital # 2, North-West State Medical University, Saint-Petersburg, Russia

183 Long-Term Analysis of the Results of Free Fat Graft Used for Reconstruction in Skull Base Surgery – Ovanes Akobyan, MD (presenter), Yury Shulev, MD, City Hospital # 2, North-West State Medical University, Saint-Petersburg, Russia

184 Hair-Preservation Craniotomy for Skull Base Procedures – Peter Sylvester, BS, Bruce Haughey, MD, Phil Custer, MD, Jason Diaz, MD, Joel Goebel, MD, Michael Chicoine, MD (presenter), Washington University

185 Optimum Care: Implementation of Quality Assurance Benchmarks for Pituitary Surgery – Sergei Tertorov, MD (presenter), Elena I Fomchenko, PhD, Marvin Bergsneider, MD, Department of Neurosurgery, David Geffen School of Medicine, University of California Los Angeles

186 Unusual Case of Recurrent Carotid-Cavernous Fistula After 47 Years, Treated with Direct Clip Ligation of the Petrous Internal Carotid Artery – Abhishek Agrawal, MD (presenter), Andrew Ferrell, MD, Shahid Nimjee, MD PHD, Tony Smith, Gavin Britz, MD MPH, Departments of Radiology and Surgery, Division of Neurosurgery, Duke University Medical Center, Durham, North Carolina

187 Endonasal Management of Optic Canal Stenosis Due to Fibrous Dysplasia – Jeffrey C Rastatter, MD (presenter), Tord Alden, MD, Ann and Robert H. Lurie Children’s Hospital of Chicago, 225 E. Chicago Ave, Chicago, IL 60611

188 Syphilitic Gumma Lesion in Meckel’s Cave and Infra-temporal Fossa Presenting with Cranial Nerve Deficit – Myreille D’Aoust, MD PhD (presenter), Sylvie Nadeau, MD, Genevieve Lapointe, MD, Enfant-Jesus Hospital, Quebec city, Canada; Laval University, Quebec city, Canada

189 Neuronavigation System as a Tool for the Treatment of Skull Base Tumors - Single Brazilian Center Retrospective Study of 72 Cases – Cristian Ferrareze Nunes, MD (presenter), Gustavo A Porto Sereno Cabral, MD, Mario A Lapenta, MD, José A Landeiro, MD PhD, Caleão Air Force Hospital
190 OCCULT INCREASED INTRACRANIAL PRESSURE IN SPONTANEOUS CEREBROSPINAL FLUID LEAK – Maria Koutourousiou, MD (presenter), Esther Vivas, MD, Srinivas Chivukula, Juan Fernandez-Miranda, MD, Eric Wang, MD, Barry Hirsch, MD, Carl Snyderman, MD MBA, Paul Gardner, MD, Center for Cranial Base Surgery University of Pittsburgh Medical Center, Pittsburgh, PA, USA

191 TEAMWORK IN SKULL BASE SURGERY: AN AVENUE FOR IMPROVEMENT IN PATIENT CARE – Nancy McLaughlin, MD PhD (presenter), Ricardo L Carrau, MD, Daniel F Kelly, MD, Daniel M Prevedello, MD, Amin B Kassam, MD, St-Johns Health Center;

192 ADVANCED NEUROIMAGING & PREOPERATIVE PLANNING FOR COMPLEX SKULL BASE SURGERY – Cormac Gavin, MD FRCS (presenter), Robert Bradford, MD FRCS, The Skull Base Service, Brain Tumour Unit, The National Hospital For Neurology

193 ALVEOLAR SINONASAL Rhabdomyosarcoma in Adults: A Case Report – Homere Al Moutran, MD (presenter), Priyam Vyas, BS, Rhonda Sanders, MD, Peter Costantino, MD, Elana Opfer, MD, David Hiltzik, MD, New York Head and Neck Institute. Northshore-LIJ Health System.

194 ASSESSMENT OF INTERLEUKIN-6 AND INTERLEUKIN-10 AS SERUM BIOMARKERS IN A SPONTANEOUS FELINE TUMOR MODEL OF HEAD AND NECK SQUAMOUS CELL CARCINOMA (HNSCC) – Jackie M Wypij, MS DVM DACVIM (presenter), Jocelyn Riehl, DVM, University of Illinois at Urbana-Champaign

195 MYEOPTHELIOMA OF THE SKULL BASE AND ORBIT: CASE REPORT, IMMUNOHISTOPATHOLOGY AND SURGICAL CONSIDERATIONS – D M Hayward, MD (presenter), E Wild, BS, J M Lee, MD PhD, A E Rosenberg, MD, V C Prabhu, MD, Loyola University Medical Center

196 PEDICLED FLAP RECONSTRUCTION OF THE LATERAL SKULL BASE – Eric Thorpe (presenter), Richard Borrowdale, John Leonetti, MD, Sam Marzo, MD, Loyola University Medical Center

197 MULTIFOCAL EXTRAMEDULLARY PLASMACYTOMA INVOLVING THE NASAL CAVITY: A CASE REPORT AND REVIEW OF THE LITERATURE – Joseph Seymour, MD (presenter), Moneer Abdo, BS, Mahdi Shkoukani, MD, Wayne State University

198 MANAGING LARGE CAROTID BODY TUMOURS- AI I M S EXPERIENCE – Dr Suresh C Sharma, Professor MD (presenter), All India Institute of Medical Sciences, New Delhi, INDIA.

199 MANAGEMENT OF SINONASAL CHONDROSARCOMA: A SYSTEMATIC REVIEW OF 158 PATIENTS – Mohemmed N Khan, BA (presenter), Qasim Husain, BS, Zain Boghani, BS, Saurin Sanghvi, BS, James K Liu, MD, Jean A Eloy, MD FACS, University of Medicine and Dentistry of New Jersey – New Jersey Medical School

200 APPLICATION OF INTRAOPERATIVE INDOCYANINE GREEN VIDEOANGIOGRAPHY DURING SKULL BASE SURGERY – CASE REPORT – Gustavo A Porto Sereno Cabral, MD (presenter), Cristian Ferrareze Nunes, MD, Mario A Lapenta, MD, Jose A Landeiro, MD PhD, Galeao Air Force Hospital

202 TIME TO ESTHESIOEUROBLASTOMA RECURRENCE: A META ANALYSIS – Vishal H Dhandha, BS (presenter), Adam M Zanation, MD, Department of Otolaryngology/ Head and Neck Surgery, University of North Carolina – Chapel Hill

203 NONSPECIFIC INFLAMMATORY TUMORS OF THE SKULL BASE: CASE SERIES – David A Stidd, MD MS, Jesse Skoch, MD (presenter), G. Micheal Lemole, MD, Division of Neurosurgery, University of Arizona

204 MUCOSAL MELANOMA OF THE NASOPHARYNX AND EUSTACHIAN TUBE: CASE REPORT AND REVIEW – Scott A McLean, MD, K. Kelly Gallagher, MD (presenter), University of Michigan

205 A NEXT GENERATION CADAVERIC MICRONEUROSURGERY SKULL BASE LABORATORY: A NEW MODEL FOR TECHNOLOGICALLY INTEGRATED SURGICAL TRAINING AND INNOVATION – Alexander I Evins, BS (presenter), Philip E Stieg, MD PhD, Antonio Bernardo, MD, Department of Neurological Surgery, Weill Cornell Medical College

208 INTRAOPERATIVE EXTRACORPOREAL IRRADIATION FOR THE TREATMENT OF THE MENINGIOMA-INFILTRATED CALVARIUM – Edward E Kerr, MD (presenter), Ruben Fragoso, MD PhD, Kiarash Shahaie, MD PhD, University of California, Davis

209 MINIMALLY INVASIVE DIRECT TRANSCONDYLAR APPROACH TO THE FORAMEN MAGNUM: SURGICAL ANATOMY AND PRESENTATION OF TWO CLINICAL CASES – Roberto Diaz, MD (presenter), Miguel Berdeo, MD, Silvia Tatiana Quintero Oliveros, MD, Juan Carlos Acevedo, MD, Oscar Feo Lee, MD, Oscar Zorro, MD, Rafael Uribe, MD, Jaime Becerra, MD, Laura Diaz, MD, Juan Carlos Perez, MD, Edgar Ordoñez, BS, Hospital Universidad San Ignacio, Pontificia Universidad Javeriana, Bogotá, Colombia.

210 INTRADURAL ANTERIOR PETROSECTOMY FOR PETROCLIVAL MENINGIOMAS – Sunil K. Gupta, (presenter), Department of Neurosurgery, pgimer, Chandigarh, India
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211 ROLE OF PLANUM SPHENOIDALE MENINGIOMA RESECTION IN IMPROVING VISUAL FUNCTION – Andrea P Perera, Andrew F Alalade (presenter), Jonathan R Pollock, Essex Neuroscience Centre, Queens Hospital, Romford, UK

212 RADIATION-INDUCED MENINGIOMA OF THE ORBIT: NATURAL HISTORY, POTENTIAL FOR MALIGNANT TRANSFORMATION AND SURGICAL MANAGEMENT – Dustin M Hayward, MD (presenter), Tarik Ibrahim, MD, David Yoo, MD, Darl Vandevender, MD, Vikram C Prabhu, MD, Loyola University Medical Center Departments of Neurosurgery, Ophthalmology and Plastic Surgery

213 MICROSURGICAL TREATMENT FOR PRIMARY JUGULAR FORAMEN MENINGIOMAS – Jie Tang, MD (presenter), Junting Zhang, MD, Liwei Zhang, Xinru Xiao, MD, Dabiao Zhou, MD, Beijing Tiantan hospital, Beijing, China

214 CHORDOID MENINGIOMA: A CLINICAL, RADIOGRAPHIC AND PATHOLOGIC REVIEW OF 7 CASES – J Lewis, MD (presenter), S Barnett, MD, B Mickey, MD, B Boudreaux, MD, UT Southwestern

215 RECURRENCE RATE AND OUTCOME ANALYSIS OF SKULL BASE MENINGIOMAS AFTER SURGICAL RESECTION – Ovanes Akobyan, MD (presenter), Yury Shulev, MD, Vladimir Shamanin, MD, City Hospital # 2, North-West State Medical University, Saint-Petersburg, Russia

216 CLINICAL AND OPERATIVE DIFFERENCES BETWEEN LATERAL SKULL BASE MENINGIOMAS – John Leonetti, MD, Michael J Loochtan, MD (presenter), Sam Marzo, MD, Douglas Anderson, MD, Vikram Prabhu, MD, Nicolas Katsantonis, MS, Stritch School of Medicine, Loyola University Medical Center

219 ROLE OF MMP16 IN MALIGNANT AND INVASIVE MENINGIOMA – Shahrzad Jalali, PhD (presenter), Takafumi Wataya, MD PhD, Gelareh Zadeh, MD PhD, Division of Neurosurgery, Toronto Western Hospital, University of Toronto

220 FROM ABOVE OR BELOW: THE CONTROVERSY AND HISTORICAL EVOLUTION OF TUBERCULUM SELLAE MENINGIOMA RESECTION FROM OPEN TO ENDOSCOPIC SKULL BASE APPROACHES – Resha S Soni, BA (presenter), Smruti K Patel, BA, Qasim Husain, BS, Jean Anderson Eloy, MD FACS, James K Liu, MD, University of Medicine and Dentistry of New Jersey- New Jersey Medical School

221 SURGICAL MANAGEMENT OF PETROCLIVAL LESIONS LAST THREE YEARS EXPERIENCE AT ARMY HOSPITAL (RESEARCH & REFERRAL), NEW DELHI – Maneet Gill (presenter), Hc Pathak, Prakash Singh, Ak Sharma, Manish Sharma, Army Hospital (Research & Referral ), New Delhi, India

222 FACIAL REANIMATION ACCORDING TO THE POST-RESECTION DEFECT DURING LATERAL SKULL BASE SURGERY – John P Leonetti, MD, Sahar Nadimi, MD (presenter), Sam J Marzo, MD, Douglas A Anderson, MD, Vikram Prabhu, MD, Alexander Riveron, BS, Loyola University Medical Center

223 CRANIOPHARYNGIOMA: ANALYSIS OF FACTORS THAT AFFECT THE OUTCOME – Sherif Elwatidy, Professor (presenter), King Saud University, College of Medicine

224 PITUITARY INFARCTION ASSOCIATED WITH RATHKE’S CLEFT CYST – Ealmaan Kim, MD PhD (presenter), Division of Skull Base Surgery, Keimyung University School of Medicine, Dongsan Medical Center

225 SPHENOID SINUS MULTIPLE MYELOMA PRESENTING AS CAVERNOUS SINUS SYNDROME – Andrew Tassler, MD, Adesh Tandon, MD (presenter), Nupren Baxi, MD, The Albert Einstein College of Medicine, Montefiore Medical Center

226 RECONSTRUCTION OF SKULL BASE DEFECTS FOLLOWING ENDONASAL TRANSSPHENOIDAL APPROACHES TO THE SELLA REGION – Bakhtiyar Pashaev, MD (presenter), Dmitry Bochkarev, MD, Valery Danilov, MD, Andrey Alekseev, MD, Gulnar Vagapova, MD, Vladimir Krasnazhen, MD, Departments of Neurosurgery, Inter-regional clinical diagnostic center, Kazan. Kazan Medical state University. Kazan Medical state Academy, Russian Federation.

227 PITUITARY ABSCESSES PRESENTING AS PSEUDO-APOPLEXY. ABOUT 2 UNUSUAL CASES – Moujahed Labidi, MD (presenter), Akli Zetchi, MD, Genevieve Lapointe, MD FRSCC, CHU de Quebec, Hopital de l’Enfant-Jesus

228 THE ROLE OF IMAGE FUSION NEURONAVIGATION IN REPEATED TRANSSPHENOIDAL MICROSURGERY FOR PITUITARY ADENOMAS – Da Biao Zhou (presenter), Gui Jun Jia, Ming Ni, Wang Jia, Department of Neurosurgery. Beijing Tiantan Hospital, Capital Medical University

230 SURGICAL MANAGEMENT OF PRIMARY CAVERNOUS SINUS TUMORS – Maria Koutourousiou, MD (presenter), George Zenonos, MD, Juan Fernandez-Miranda, MD, Eric Wang, MD, Carl Snyderman, MD MBA, Paul Gardner, MD, Center for Cranial Base Surgery University of Pittsburgh Medical Center, Pittsburgh, PA, USA
231 REMOVAL OF THE POSTERIOR WALL OF THE SPHENOID SINUS DURING TRANS-SELLAR SKULL BASE SURGERY: THE MENISCUS SIGN – Courtney B Shires, MD (presenter), Christopher H Rassekh, MD, Robert T Adelson, MD, Sean M Grady, MD, Bert W O’Malley, Jr, MD, University of Pennsylvania, University of Tennessee

232 VISION OUTCOMES FOLLOWING ENDOSCOPIC ENDONASAL SURGERY FOR LESIONS COMPRISING THE OPTIC APPARATUS – Stefan Mlot, MD (presenter), Oszkar Szentirmai, MD, Roheen Raithatha, MD, Mark Dinkin, MD, John Tsiouris, MD, Vijay Anand, MD, Theodore Schwartz, MD, New York Presbyterian/Weill Cornell Medical Center


234 THE ROLE OF MEDIATORS OF CELL INVASIVENESS, MOTILITY AND MIGRATION IN THE PATHOGENESIS OF CAVERNOUS SINUS AND SPHENOID SINUS BONE INVASION IN PITUITARY ADENOMAS – Eric Monsalves, Ozgur Mete, Sylvia L Asa, Fred Gentili, Allan Vescan, Gelareh Zadeh (presenter), University Health Network, Toronto, Ontario

235 ENDOSCOPIC TRANSSPHENOIDAL SURGERY FOR ACROMEGALY AND CUSHING’S DISEASE: 6 YEAR EXPERIENCE – Oscar Feo Lee, MD, Silvia Tatiana Quintero Oliveros, MD, Roberto Diaz, MD, Miguel Berbeo, MD, Juan Carlos Acevedo, MD, Oscar Zorro, MD, Rafael Uribe, MD (presenter), Jaime Becerra, MD, Laura Diaz, MD, Juan Carlos Perez, MD, Mauricio Avila, BS, Hospital Universitario San Ignacio, Pontificia Universidad Javeriana, Clinica Colombia, Hospital Santa Clara. Bogotá, Colombia.

236 SUPRASELLAR MATURE CYSTIC TERATOMA: A CASE REPORT – Fadi B Sweiss, BS, Lauren Dalvin, BS, Raed B Sweiss, DO (presenter), Javed Siddiqui, MD, Arrowhead Regional Medical Center, Northeast Ohio Medical University

237 HYponATREMIA AS A PRESENTING SIGN FOR SELLAR MASSES – Nancy McLaughlin, MD PhD (presenter), Gal Bordo, BS, Katie Kelly, AB, Amy Eisenberg, RN NP, Charlene Chaloner, RN, Pejman Cohan, MD, Daniel F Kelly, MD, John Wayne Cancer Institute at St-John’s Health Center

238 LOCALIZATION OF FORAMEN OVALE FOR TREATMENT OF TRIGEMINAL NEURALGIA: AN ANATOMICAL PERSPECTIVE – Tulika Gupta, MD (presenter), Daisy Sahni, MD, department of anatomy, pgimer, Chandigarh

239 RETROSPECTIVE STUDY OF SKULL BASE FRACTURE: A STUDY OF INCIDENTS, COMPLICATIONS, MANAGEMENT, AND OUTCOME OVERVIEW FROM TRAUMA-ONE-LEVEL INSTITUTE OVER FIVE YEARS – Michael Lemole, MD, Mandana Behbahani, BA (presenter), University of Arizona college of Medicine

240 ANATOMICAL LANDMARKS FOR LOCATING THE SPHENOID OSTIUM: A CADAVERIC STUDY – Tulika Gupta, MD (presenter), Daisy Sahni, PhD, Anjali Agarwal, MD, PGIMER, Chandigarh, India

241 CADAVERIC ANATOMY OF FRONTAL SINUS OUTFLOW PATHWAY – Tulika Gupta, MD (presenter), Anjali Agarwal, MD, Daisy Sahni, PhD, PGIMER, Chandigarh

242 THE “MÜNSTER CORRELATION” IN THE TEMPORAL BONE: SURGICAL RELEVANCE OF AN ANATOMICAL STUDY – Hamid Borghei-Razavi, MD (presenter), Uta Schick, Professor MD PHD, Department of neurosurgery, Clemens Hospital, academic hospital of Münster university, Münster, Germany

243 MICROVASCULAR DECOMPRESSION FOR TRIGEMINAL NEURALGIA: DOES THE TYPE OF VASCULAR CONTACT IMPACT OUTCOME? – Sukhmeet K Sandhu, BA, Casey H Halpern, MD, Chris Y Shi, BS, Venus Vakhshori, BA BS, Keyvan Mirsaeedi-Farahani, BS BBA, Marie Kerr, CCRP, John Y Lee, MD (presenter), University of Pennsylvania

244 AN ENSDOMS TRANSTRAL COMPARED WITH AN ENDONASAL APPROACH TO MECKEL’S CAVE: AN ANATOMICAL STUDY – Jason R Van Rompaey, BS (presenter), Anand Suruliraj, MS FRACS, Ricardo Carrau, MD, Benedict Panizza, MBBS, C. Arturo Solares, MD, Georgia Health Sciences University, Augusta GA; The Townsville Hospital, Townsville, QLD Australia; The Ohio State University Medical Center, Columbus, OH; Princess Alexander Hospital, Brisbane, QLD Australia

245 NEURAL INTERCONNECTIONS BETWEEN PORTIO MINOR AND PORTIO MAJOR AT THE PORUS TRIGEMINUS – Martin M Mortazavi, MD (presenter), Christoph J Griessenauer, MD, Jason Cormier, MD, R. Shane Tubbs, PhD, Aaron Cohen-Gadol, MD, University of Alabama at Birmingham, Division of Neurosurgery. University of Indiana, Department of Neurological Surgery

246 IDENTIFICATION OF A NEW SEGMENT OF THE TROCHLEAR NERVE – Martin M Mortazavi, MD (presenter), Christoph J Griessenauer, MD, Jason Cormier, MD, R. Shane Tubbs, PhD, Aaron Cohen-Gadol, MD, University of Alabama at Birmingham, Division of Neurosurgery. University of Indiana, Department of Neurological Surgery

248 ANATOMIC AND RADIOGRAPHIC STUDY OF ANTERIOR SURGICAL APPROACHES TO THE INFRATEMPORAL FOSSA – Xuwei Xia, MD PhD (presenter), Shaan Raza, MD, Ari Blitz, MD, Alfredo Quinones, MD, Kofi Boaehene, MD, Douglas Reh, MD, Masaru Ishii, MD PhD, Gary Gallia, MD PhD, Johns Hopkins University
249 SURGICALLY INDUCED SMART SYNDROME: CASE REPORT AND REVIEW OF THE LITERATURE – Michael Link, MD, William R Copeland, MD, Patrick R Maloney, MD (presenter), Alejandro A Rabinstein, MD, Mayo Clinic Department of Neurosurgery

250 POST-RADIATION MECKEL'S CAVE METASTASIS TREATED BY STEREOTACTIC RADIOSURGERY – Andrew J Fabiano, MD (presenter), Carl Anderson, BS, Dheerendra Prasad, MD MCh, Roswell Park Cancer Institute; SUNY at Buffalo School of Medicine

251 FRAMELESS, REAL-TIME, SURFACE IMAGE GUIDED RADIOSURGERY (SIG-RS): SHORT-TERM SAFETY PROFILE IN THE MANAGEMENT OF BENIGN SKULL BASE LESIONS – Chiazo Amene, MD (presenter), Teddy Kim, MS, Joshua Lawson, MD, Clark Chen, MD, University of California San Diego Medical Center, San Diego, California

252 INJURY TO THE TEMPORAL LOBE VIA MEDIAL TRANSORBITAL ENTRY OF A TOOTHBRUSH – Jesse Skoch, MD (presenter), Tracy L Ansay, MD, Gerald M Lemole, Jr MD, University of Arizona

253 SURGICAL MANAGEMENT OF TRAUMATIC CEREBROSPINAL FLUID OCULORRHEA – Matthew Pease (presenter), Yvette Marquez, Alex Tuchman, Alex Markarian, Gabriel Zada, USC Keck School of Medicine

254 THE ‘TWIN PEAKS’ SIGN: A DISTINCT RADIOLOGICAL SIGN SUGGESTING CAUTION FOR PNEUMOCEPHALUS AND ANTERIOR SKULL BASE FRACTURE IN THE SETTING OF EPISTAXIS AFTER HEAD INJURY – Andreas K Demetriades (presenter), King’s College Hospital London, UK

255 ARTERIOVENOUS FISTULA AFTER FACE LIFT TREATED WITH ENDOVASCULAR EMBOLIZATION – Mayshon Chiassi, MD (presenter), Dennis T Lockney, BS, Mahan Chiassi, MD, Moneeb M Ehtesham, MBBS, Robert J Singer, MD, Vanderbilt University Medical Center, Department of Neurosurgery

256 ENDOSCOPIC ENDONASAL CLIPPING OF INTRACRANIAL ANEURYSMS: TECHNICAL DETAILS AND ANATOMIC BASIS – Francisco A Vaz Guimaraes Filho, MD MSc (presenter), Matthew J Tormenti, MD, Maria Koutourouisiou, MD, John de Almeida, MD, Shirley Y Su, MD FRACS, Eric Wang, MD, Juan C Fernandez-Miranda, MD, Carl H Snyderman, MD MBA, Paul A Gardner, MD, University of Pittsburgh Medical Center

257 DURAL Cavernous Angioma of the Cerebellopontine Angle: Case Report and Review of the Literature – Jeffrey T Jacob, MD (presenter), Colin L Driscoll, MD, Caterina Giannini, MD, Michael J Link, MD, Mayo Clinic

258 MODIFIED TENTORIUM INCISION IN THE EXTENDED SUBTEMPORAL TRANSVENTORIAL APPROACH FOR POSTERIOR CIRCULATION ANEURYSMS: TECHNICAL NOTE AND CLINICAL EXPERIENCE – Nancy McLaughlin, MD PhD (presenter), Neil A Martin, MD, David Geffen School of Medicine at University of California - Los Angeles

259 UNUSUAL PRESENTATION OF SKULL BASE CAROTID ARTERY ANEURYSM CAUSING MULTIPLE LOWER CRANIAL NERVE PALSY – Melanie Malone, MD (presenter), Marc Cohen, MD, Lucian Sulica, MD, David Kutler, MD, Athos Patsalides, MD MPH, Weill Cornell Medical College

260 THE FIRST DESCRIPTION OF A BASILAR ARTERY ANEURYSM RUPTURE IN 1836 – Andreas K Demetriades (presenter), Takashi Horiguchi, James Goodrich, Takeshi Kawase, King’s College Hospital London, Keio University Tokyo, Albert Einstein College of Medicine New York

261 SURGICAL MANAGEMENT OF OPHTHALMIC SEGMENT ANEURYSMS : EXPERIENCE AT ARMY HOSPITAL (RESEARCH&REFERRAL), NEW DELHI – Maneet Gill (presenter), H C Pathak, Prakash Singh, Army Hospital (Research & Referral) , New Delhi India

262 FIBROUS DYSPLASIA OF THE TEMPORAL BONE: IMAGING CHARACTERISTICS AND NEUROTOLOGIC CONSIDERATIONS – William C Gump, MD (presenter), Arun K Gadre, MD, Kosair Children’s Hospital, Norton Neuroscience Institute

263 HEARING OUTCOMES AFTER SURGICAL DRAINAGE OF PETROUS APEX CHOLESTEROL GRANULOMA – Jordan Rihani, MD (presenter), Kyle Allen, MD, Peter Roland, MD, J. Walter Kutz, MD, Brandon Isaacson, MD, UT Southwestern Medical Center

264 DELAYED OTORRHEA FOLLOWING TRANSLABYRINTHINE CRANIOTOMY APPROACH TO THE CEREBELLOPONTINE ANGLE – John P Leonetti, MD, Nadesia Caballero, MD (presenter), Jacob Ossoff, BA, Sam Marzo, MD, Douglas Anderson, MD, Loyola University Medical Center

265 PROTEUS MIRABILIS SKULL BASE OSTEOMYELITIS WITH CANAL CHOLESTEATOMA IN AN IMMUNOCOMPETENT TEENAGER: SURGICAL AND MEDICAL MANAGEMENT – Stephen R Hoff, MD (presenter), Jeffrey C Rastatter, MD, Northwestern University, Ann and Robert H. Lurie Children’s Hospital of Chicago
266 EVOLUTION OF FACIAL NERVE FUNCTIONAL RECOVERY AFTER REMOVAL OF GIANT VESTIBULAR SCHWANNOMAS – Alexander V Trashin, MD (presenter), Yury A Shulev, MD, Vladimir L Rychkov, MD, City Hospital # 2, North-West State Medical University, Saint-Petersburg, Russia

267 INTRATEMPORAL TRAUMATIC FACIAL NERVE NEUROMAS IN THE ABSENCE OF TRAUMA – Kyle P Allen, MD MPH (presenter), J. Walter Kutz, MD, Kimmo J Hatanpaa, MD PhD, Yuri Lemeshev, MD, Brandon Isaacson, University of Texas Southwestern Medical Center

268 TRANS-CANAL APPROACH FOR REMOVAL OF DISPLACED PETROUS CAROTID ANEURYSM EMBOLIZATION COIL IN THE MIDDLE EAR – Fred F Telisch, MD, Ronen Nazarian, MD (presenter), Daniel Jethanemest, MD, University of Miami - Department of Otolaryngology Head and Neck Surgery. Miami, Florida.

269 DELAYED WOUND INFECTION ASSOCIATED WITH BONE WAX IN LATERAL SKULL BASE SURGERY – Daniel Jethanemest, MD (presenter), Sachin Gupta, MD, Jacques J Morcos, MD, Fred F Telisch, MEE MD, John G Golfinos, MD, John T Roland, MD, New York University School of Medicine, University of Miami Miller School of Medicine

270 AURICULAR COMPLICATIONS IN LATERAL SKULL BASE NEOPLASMS – Ryan Burgette, MD (presenter), Sam Marzo, MD, Eric Thorpe, MD, John Leonetti, MD, Loyola University Medical Center

271 READING ASSESSMENT OF INTERNET-BASED PATIENT EDUCATION MATERIALS RELATED TO ACOUTIC NEUROMAS – Deepa V Cherla, Saurin Sanghvi, BS (presenter), Osamah J Choudhry, BA, Robert W Jyun, MD, Jean A Eloy, MD FACS, James K Liu, MD, UMDNJ-New Jersey Medical School

272 MIDDLE FOSSA MENINGIOMA MIMICKING FACIAL NERVE SCHWANNOMA - CASE REPORT – Cristian Ferrareze Nunes, MD (presenter), Gustavo A Porto Sereno Cabral, MD, Mario A Lapenta, MD, José A Landeiro, MD PhD, Galeão Air Force Hospital

273 TEGMENT DEFECT RESULTING IN SPONTANEOUS CEREBROSPINAL FLUID LEAK FOLLOWING TYPANOSTOMY, WITH TREATMENT BY INTRADURAL MIDDLE CRANIAL FOSSA REPAIR: TWO CASE REPORTS – Michael J Canty, Mr (presenter), Musheer Hussein, Mr, M S Eljamel, Professor, Departments of Neurosurgery and Otorhinolaryngology, Ninewells Hospital and Medical School, Dundee, UK

274 FACIAL NERVE DECOMPRESSION BY MIDDLE FOSSA CRANIOTOMY IN POST-TRAUMATIC PARALYSIS – Simon I Angeli, MD (presenter), University of Miami Department of Otolaryngology

275 MANAGEMENT OF TYPANOJUGULAR PARAGANGLIOMAS: OUR EXPERIENCE IN TREATMENT AND FOLLOW-UP – Gianluca Piras, MD (presenter), Andrea Castellucci, MD, Maria Chiara Raimondi, MD, Elisabetta Firinu, MD, Alberto Rinaldi-Ceroni, MD PhD, Giovanni Carlo Modugno, MD PhD, Department of Specialistic Surgical and Anesthesiological Sciences, ENT Unit, University of Bologna, Italy

276 TEMPORAL CRANIOTOMY FOR MANAGEMENT OF MIDDLE CRANIAL FOSSA ENCEPHALOCELES WITH CSF LEAKS – Lior Gonen, MD (presenter), Ophir Handzel, MD, Nevo Margalit, MD, Tel Aviv Sourasky Medical Center

277 OUTCOMES OF MIDDLE FOSSA SKULL BASE DEFECTS REPAIRED USING A NOVEL COMBINATION OF MATERIALS – Chiazo Amene, MD (presenter), Cedric Shorter, MD, David Connor, DO, Jai Deep Thakur, MD, Gale Gardner, MD, Anil Nanda, MD, Bharat Guthikonda, MD, Louisiana State University Health Sciences Center- Shreveport, Louisiana

279 RECONSTRUCTION OF CRANIAL BASE DEFECTS USING THE MEDPOR TITAN IMPLANT: CRANIOPLASTY APPLICATIONS IN ACOUSTIC NEUROMA SURGERY – Zain Boghani, BS (presenter), Osamah J Choudhry, MD, Richard F Schmidt, BA, Robert W Jyun, MD, James K Liu, MD, University of Medicine and Dentistry of New Jersey, New Jersey Medical School

280 RADIO-ANATOMICAL ANALYSIS OF LANDMARKS FOR EXPOSING THE INTERNAL AUDITORY CANAL FROM THE SUBTEMPORAL APPROACH – Zsolt E Zador, MD MRCS PhD (presenter), Gareth A Roberts, FRCS SN, Department of Neurosurgery, Royal Preston Hospital, Preston, UK

281 SQUAMOUS CELL CARCINOMA ARISING IN A REMNANT OF AN EXTRAPITTED CEREBELLOPONTINE ANGLE EPIDERMOID TUMOR: CASE REPORT AND LITERATURE REVIEW – Seth E Kaplan, MD (presenter), Mara C Modest, BS, Christopher J Farrell, MD, Gregory J Artz, MD, Department of Otolaryngology – Head and Neck Surgery, and Department of Neurosurgery, Thomas Jefferson University Hospital, Philadelphia, Pennsylvania, U.S.A.

283 EXPANDED ENDOSCOPIC MULTIAXIAL ACCESS TO THE MIDLINE CRANIAL BASE AND INTRATEMPORAL FOSSA THROUGH THE MAXILLARY OSTEOPLASTIC WINDOW – S M Raza, MD (presenter), Alfredo Quinones-Hinojosa, MD, Kofi D Boahene, MD, The Johns Hopkins Hospital

284 INFRACochlear DRAINAGE OF CHOLESTEROL CRANULOMAS WITH DOUBLE BARREL STENTS – Nael Shoman, MD, Ravi Samy, MD, Myles L Pensak, MD, Hwa J Son, MD (presenter), University of Cincinnati...
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