

**FINAL PROGRAM 2013**

# **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

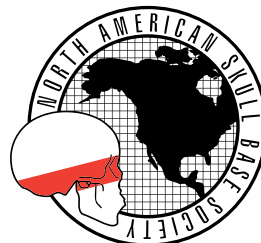
**THE DORAL HOTEL  
MIAMI, FLORIDA**



**PRESIDENT:** Carl Heilman, MD

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

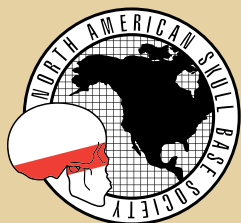
**PRACTICAL COURSE DISSECTION WORKSHOP CHAIRS:** Vijay K. Anand, MD, Carlos David, MD, James Evans, MD, & Sandeep Samant, MD



**[WWW.NASBS.ORG](http://WWW.NASBS.ORG)**

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# WELCOME

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."

# GENERAL/CME INFORMATION

## 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 of 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

### 24<sup>th</sup> NASBS Annual Meeting

February 14-16, 2014

Pre-Meeting Practical Dissection Workshop February 12-13, 2014

## NASBS SCIENTIFIC PROGRAM COMMITTEE

Carl Heilman, MD (President)  
Michael Chicoine, MD (Chair)  
Siviero Agazzi, MD (Co-Chair)  
Nik Blevins, MD (Co-Chair)  
Mark Varvares, MD (Co-Chair)

## MEETING LEADERSHIP

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### BOARD OF ADVISORS

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Dennis Kraus, MD (2016)  
Peter Neligan, MD (2015)  
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## PAST PRESIDENTS

1990	Paul J. Donald, MD
1991	Laligan N. Sekhar, MD
1992	Ivo P. Janecka, MD
1993	Peter G. 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. Gullane, 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](mailto:membership@nasbs.org).

## REGISTRATION HOURS

<b>Thursday, February 14, 2013</b>	2:00 pm – 6:00 pm
<b>Friday, February 15, 2013</b>	6:30 am – 7:00 pm
<b>Saturday, February 16, 2013</b>	6:30 am – 5:30 pm
<b>Sunday, February 17, 2013</b>	7:30 am – 12:30 pm

## SPEAKER PREP HOURS

<b>Thursday, February 14, 2013</b>	2:00 pm – 6:00 pm
<b>Friday, February 15, 2013</b>	6:30 am – 5:00 pm
<b>Saturday, February 16, 2013</b>	6:30 am – 5:00 pm
<b>Sunday, February 17, 2013</b>	7:30 am – 10:00 am

## EXHIBIT HALL/POSTER HOURS

### Friday, February 15, 2013

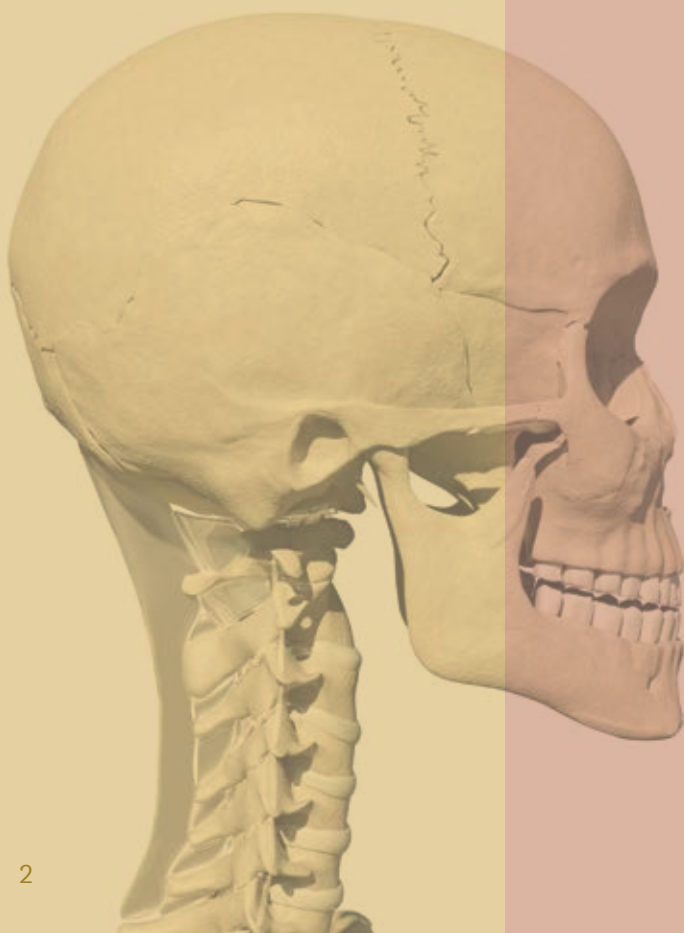
9:00 am – 4:00 pm	Exhibit Hall Open
5:30 pm – 7:00 pm	Exhibit Hall Open (Reception)
9:00 am – 9:30 am	Break in Exhibit Hall
12:00 pm – 1:00 pm	Lunch for Non Members in Exhibit Hall
3:30 pm – 4:00 pm	Break in Exhibit Hall
4:00 pm – 5:30 pm	Break for Exhibitors/Exhibit Hall Closed
5:30 pm – 7:00 pm	Reception in Exhibit Hall

### Saturday, February 16, 2013

9:00 am – 4:00 pm	Exhibit Hall Open
9:00 am – 9:30 am	Break in Exhibit Hall
3:30 pm – 4:00 pm	Break in Exhibit Hall

### Sunday, February 17, 2013

7:30 am – 11:00 am	Exhibit Hall Open
7:30 am – 8:00 am	Breakfast in Exhibit Hall
10:00 am – 10:30 am	Break in Exhibit Hall





# RECOGNIZED GUESTS

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. John 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 Ophtalmologique 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

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Shreveport, LA, USA

**Chiazo Amene, MD**

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**Vijay Anand, MD, FACS**

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New York Presbyterian Hospital Weill  
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# 2013 MEETING FACULTY

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## 2013 AWARD WINNERS

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”**

Winward Choy  
University of California Los Angeles  
Los Angeles, CA, USA



### 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

# 2013 FACULTY DISCLOSURES

In accordance with the ACCME Accreditation Criteria, the American College of Surgeons, as the accredited provider of this activity, must ensure that anyone in a position to control the content of the educational activity has disclosed all relevant financial relationships with any commercial interest. Therefore, it is mandatory that both the program planning committee and speakers complete disclosure forms. Members of the program committee were required to disclose all financial relationships and speakers were required to disclose any financial relationship as it pertains to the content of the presentations. The ACCME defines a 'commercial interest' as "any entity producing, marketing, re-selling, or distributing health care goods or services consumed by, or used on, patients". It does not consider providers of clinical service directly to patients to be commercial interests. The ACCME considers "relevant" financial relationships as financial transactions (in any amount) that may create a conflict of interest and occur within the 12 months preceding the time that the individual is being asked to assume a role controlling content of the educational activity.

ACS is also required, through our joint sponsorship partners, to manage any reported conflict and eliminate the potential for bias during the activity. All program committee members and speakers were contacted and the conflicts listed below have been managed to our satisfaction. However, if you perceive a bias during a session, please report the circumstances on the session evaluation form.

Please note we have advised the speakers that it is their responsibility to disclose at the start of their presentation if they will be describing the use of a device, product, or drug that is not FDA approved or the off-label use of an approved device, product, or drug or unapproved usage.

The requirement for disclosure is not intended to imply any impropriety of such relationships, but simply to identify such relationships through full disclosure, and to allow the audience to form its own judgments regarding the presentation.

*\*Faculty that are not listed below, have nothing to disclose*

NAME	COMPANY	WHAT I OR SPOUSE/PARTNER RECEIVED	MY ROLE
Pete Batra	Medtronic	Consultant Fee	Consultant
Ricardo L. Carrau	Storz Endoscopy Inc.	Travel Expenses	Speaker
	Medtronic Inc.	Consultant Fees	Consultant
Philip L. Custer	Pfizer	Stock Ownership	
	Johnson & Johnson	Stock Ownership	
Carlos A. David	Codman	Consultant Salary	Consultant
	Sorpass Medical Ltd.	Stock	Shareholder
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	Advanced Biorics	Consulting Fee	Consultant
	Med El Corp	Consulting Fee	Consultant
James J. Evans	Stryker	Consulting Fee	Consultant
	Mizuho	Royalty	Involvement Development
John G. Golfinos	Medtronic	Honorarium	Speaker
Peter H. Hwang	Medtronic	Honorarium	Consultant
Daniel Kelly	Mizuho	Royalties	Consultant
Alexander Khalessi	Covidien	Honorarium	Consultant
Dennis H. Kraus	Endoethicon	Speaker Bureau	Speaker
Michael Kupferman	Johnson & Johnson	Honorarium	Speaker
Andrew Little	Johnson & Johnson	Honorarium	Consultant
Lawrence Marentette	Stryker	Honorarium	Consultant



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Chris Moran	EV2	Consulting Fee	Consultant
Peter Nakaji	Aesculap	Consulting Fee	Consultant
Iman Naseri	Medtronic ENT	Honorarium, Consulting Fee	Consultant
Troy Payner	Stryker	Royalty	Inventor No relevance to the topic of presentation
Daniel Pieper	Stryker GemGek	Compensation Stock Distribution	Consultant Shareholder
Ivan Radovanovic	Stemergie Biotechnology	Stocks	Founder
Vinod K. Sahney	Health Sense Radius Venture	Board of Director Fees Travel Expenses	Advisor
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Ajith J. Thomas	Codman Shurileff	Consulting Fee (Hourly)	Consultant
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## PROGRAM COMMITTEE DISCLOSURES

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Nikolas Blevins	Sonitus Medical	Ownership Interest/Honorarium	Scientific Advisory Board
Michael Chicoine	IMRIS, Inc.	Research Support	Investigator

*Drs. Siviero Agazzi, Carl Heilman and Mark Varvares have nothing to disclose.*



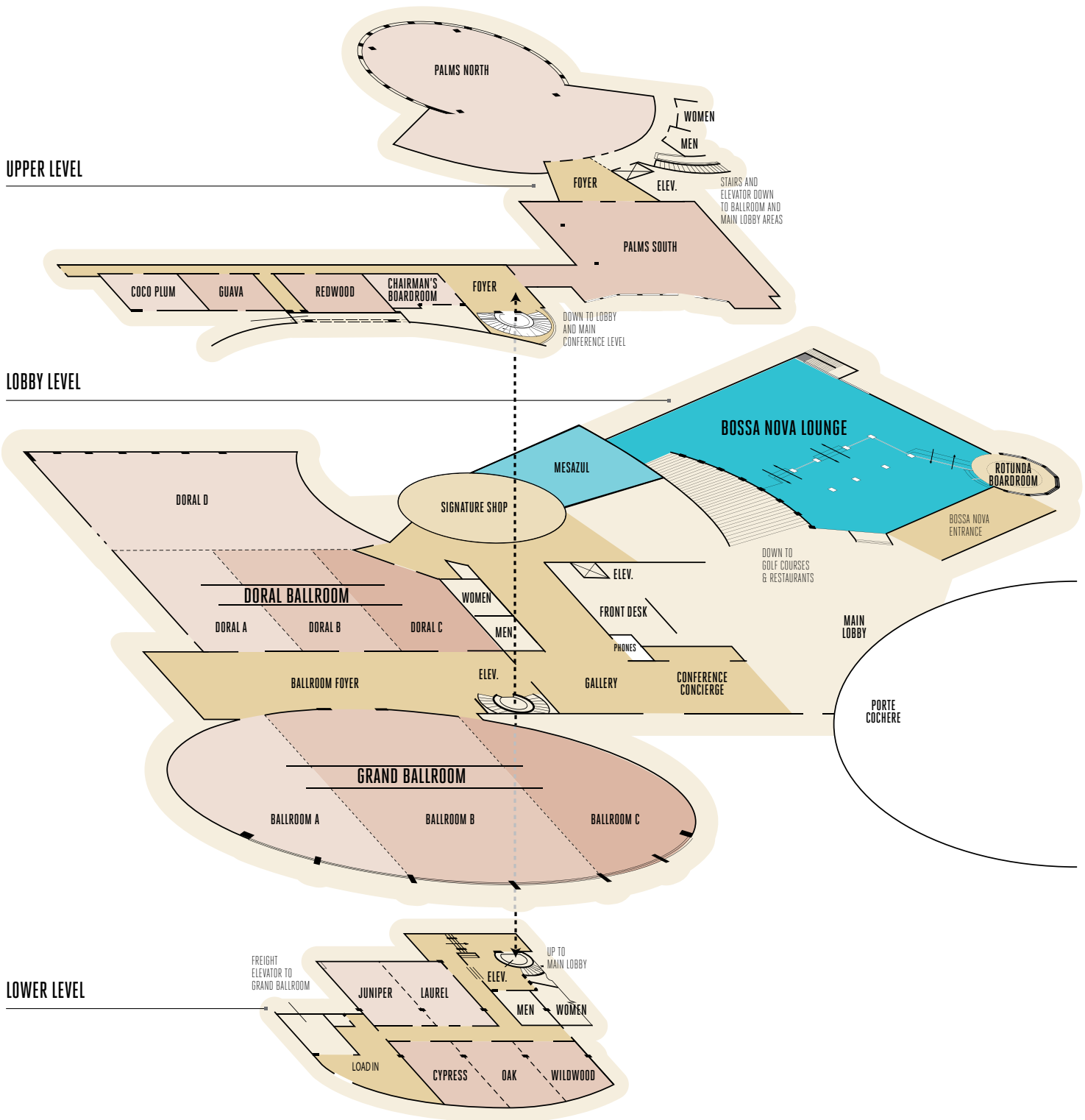
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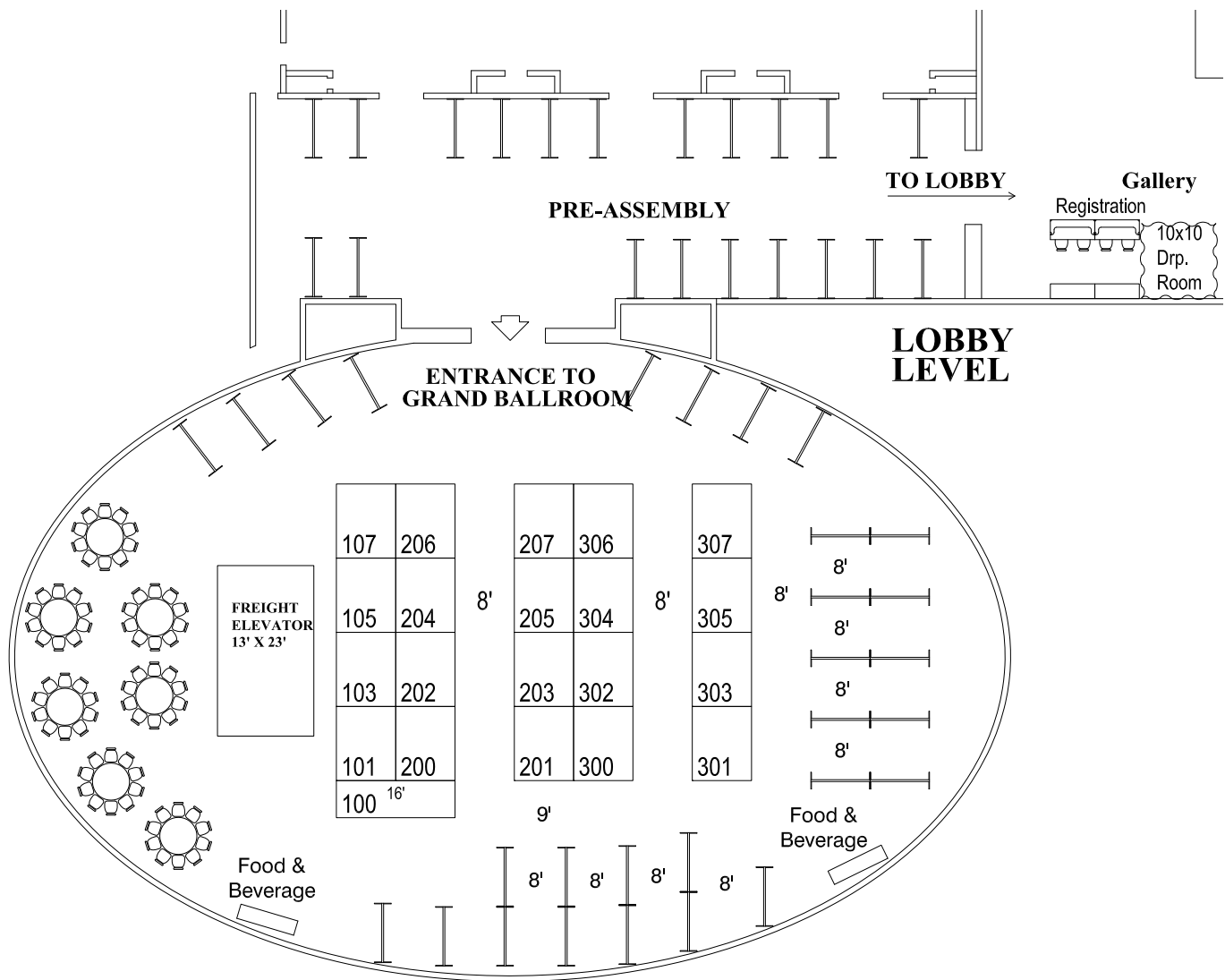
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# HOTEL FLOOR PLAN

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*Booth #100*

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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.

*Booth #103-107*

## **Synthes Anspach**

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*Booth #301*

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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.

*Booth #201*

## **Visionsense Corp.**

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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.

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*Booth #305*

# SPEAKER HIGHLIGHT

## 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.



# SCHEDULE-AT-A-GLANCE

## THURSDAY, FEBRUARY 14, 2013

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

*Gallery*

## FRIDAY, FEBRUARY 15, 2013

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

*Gallery*

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

- #1: Acoustic Neuroma
- #2: Skull Base Approaches for Aneurysms
- #3: Reconstructing the Skull Base
- #4: Sinonasal Tumors

*Doral Ballroom A  
Doral Ballroom B  
Doral Ballroom C  
Doral Ballroom D*

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

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

*Doral Ballroom A  
Doral Ballroom B  
Doral Ballroom C  
Doral Ballroom D*

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

*Grand Ballroom*

9:30 am – 12:00 pm **Plenary Session I**

*Doral Ballroom D*

- 9:30 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
- #6: Vestibular Schwannomas: Hearing Preservation & Restoration
- #7: Avoidance & Management of Vascular Complications in Skull Base Surgery
- #8: Radiation Oncology

*Doral Ballroom A  
Doral Ballroom B  
Doral Ballroom C  
Doral Ballroom D*

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

- Proffered Paper Session I: Anterior Skull Base
- Proffered Paper Session II: Chordomas & Various Endoscopic Approaches
- Proffered Paper Session III: General: Anatomy, Biomechanics & Approaches
- Proffered Paper Session IV: Sellar and Parasella Tumors
- Proffered Paper Session V: General Session

*Doral Ballroom A  
Doral Ballroom B  
Doral Ballroom C  
Laurel  
Doral Ballroom D*

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

*Grand Ballroom*

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

- Proffered Paper Session VI: CSF Leaks, Nasal Septal Flaps, Endoscopic Reconstructions
- Proffered Paper Session VII: Head & Neck Tumors
- Proffered Paper Session VIII: Meningiomas/Radiation Therapy
- Proffered Paper Session IX: Vascular
- Proffered Paper Session X: General Session

*Doral Ballroom A  
Doral Ballroom B  
Doral Ballroom C  
Laurel  
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**

*Gallery*

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

- #5: Endoscopic Approaches to Anterior Lateral Skull Base/ Middle Fossa
- #6: Sellar & Supra Sellar Tumors
- #7: Approach to Cavernous Sinuses
- #8: Petrous Apex Lesions

*Doral Ballroom A  
Doral Ballroom B  
Doral Ballroom C  
Doral Ballroom D*



8:00 am – 9:00 am	<b>Concurrent Sessions</b>	
	#9: Juvenile Nasopharyngeal Angiofibromas	<i>Doral Ballroom A</i>
	#10: Chordomas	<i>Doral Ballroom B</i>
	#11: Proffered Paper Session XI: Innovative Technologies & Approaches	<i>Doral Ballroom C</i>
	#12: Expert Case Review – unknown cases presented to panel for opinions and recommendations	<i>Doral Ballroom D</i>
9:00 am – 9:30 am	<b>Break with Exhibitors</b>	<i>Grand Ballroom</i>
9:30 am – 12:00 pm	<b>Plenary II</b>	<i>Doral Ballroom D</i>
	9:30 am: Honored Guest Lecture: “Clival Lesions: Imaging Characteristics of Benign vs. Non-Benign”	
	9:50 am: Top Abstract #2: “Factors Associated with Biochemical Remission After Open Transsphenoidal 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	
	10:48 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	<b>Lunch on own</b>	
1:00 pm – 2:00 pm	<b>Concurrent Sessions</b>	
	#13: The Cavernous Sinus	<i>Doral Ballroom A</i>
	#14: Adenoid Cystic Carcinoma & The Science of Perineural Invasion: Are Clear Margins Attainable for Advanced Disease?	<i>Doral Ballroom B</i>
	#15: Acoustic Tumors: Managing Facial Paralysis	<i>Doral Ballroom C</i>
	#16: CSF Leaks/Meningo-encephalocoeles & SCC Dehiscence	<i>Doral Ballroom D</i>
2:00 pm – 3:30 pm	<b>Proffered Paper Sessions</b>	
	Proffered Papers XII: Endoscopic Approaches/Anterior Skull Base	<i>Doral Ballroom A</i>
	Proffered Papers XIII: Head & Neck Tumors & General Topics	<i>Doral Ballroom B</i>
	Proffered Papers XIV: Sellar and Parasellar Tumors	<i>Doral Ballroom C</i>
	Proffered Papers XV: Vestibular Schwannomas	<i>Doral Ballroom D</i>
3:30 pm – 4:00 pm	<b>Break with Exhibitors</b>	<i>Grand Ballroom</i>
4:00 pm – 4:20 pm	<b>CPT Coding</b>	<i>Doral Ballroom D</i>
4:20 pm – 5:00 pm	<b>Skull Base Jeopardy</b>	<i>Doral Ballroom D</i>
6:30 pm – 10:00 pm	<b>Social Event: Havana Nights</b>	<i>Spa Pool</i>

## SUNDAY, FEBRUARY 17, 2013

7:30am – 8:00 am	<b>Breakfast/Registration</b>	<i>Grand Ballroom</i>
8:00 am – 9:00 am	<b>Breakfast Seminars: How I Do It</b>	
	#9: Far Lateral Approach	<i>Doral Ballroom A</i>
	#10: Jugular Foramen	<i>Doral Ballroom B</i>
	#11: Petroclival Meningiomas	<i>Doral Ballroom D</i>
9:00 am – 10:00 am	<b>Concurrent Sessions</b>	
	#17: NF2	<i>Doral Ballroom A</i>
	#18: Benign Tumors of the Anterior Skull Base Optimizing Outcome	<i>Doral Ballroom B</i>
	#19: Trigeminal Schwannomas	<i>Doral Ballroom C</i>
	#20: Expert Case Review – unknown cases presented to panel for opinions and recommendations	<i>Doral Ballroom D</i>
10:00 am – 10:30 am	<b>Break with Exhibitors</b>	<i>Grand Ballroom</i>
10:30 am – 12:45 pm	<b>Plenary Session</b>	<i>Doral Ballroom D</i>
	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	

# PRE-MEETING PRACTICAL COURSES\*

## Practical Course Dissection Workshop, Open & Endoscopic Approaches to the Skull Base

\*Additional registration fee.



**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 17.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

### DAY ONE: FEBRUARY 13, 2013

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

- 7:15 am **Welcome** – Vijay Anand, MD
- 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*

- 8:00 am **Introduction**  
Carlos David, MD & Sandeep Samant, MD
- ANTERIOR MODULE**
- 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**
- MIDDLE MODULE**
- 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**
- POSTERIOR MODULE**
- 2:00 pm **Lecture: Postauricular Transtemporal Approaches. Neurotology 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

# SCIENTIFIC PROGRAM

## THURSDAY, FEBRUARY 14, 2013

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

*Gallery*

## 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**

MODERATOR: Fred F. Telischi, MD

PANELISTS: Derald Brackmann, MD, Marcos Tatagiba, MD, PhD & Fred F. Telischi, MD

*The North American Skull Base Society thanks Stryker for its support of this seminar*

*Doral Ballroom A*

### **#2: Skull Base Approaches for Aneurysms**

MODERATOR: Carlos David, MD

PANELISTS: Ali Krisht, MD, Jacques Morcos, MD & Troy Payner, MD

*Doral Ballroom B*

### **#3: Reconstructing the Skull Base**

- Pericranial Flaps and Bone Grafts in Skull Base Reconstruction

- Microvascular Free Flap Reconstruction of the Skull Base

- Endoscopic Skull Base Reconstruction

- Algorithm for Skull Base Reconstruction and Facial Nerve Reconstruction

MODERATOR: Matthew Hanasono, MD

PANELISTS: Peter D. Costantino, MD, Bruce Haughey, MD & Lawrence Marenette, MD

*Doral Ballroom C*

### **#4: Sinonasal Tumors**

MODERATOR: Dennis Kraus, MD

PANELISTS: Franco DeMonte, MD & Patrick Gullane, MD

*The North American Skull Base Society thanks Medtronic Surgical Technologies for its support of this seminar.*

*Doral Ballroom D*

8:00 am – 9:00 am      **CONCURRENT SESSIONS**

### **#1: SNUC-Treatment Protocols & Outcomes**

- Surgical Resection

- Radiation & Chemotherapy

- Prognostic Factors

MODERATOR: Jatin Shah, MD

PANELISTS: Brian Nussenbaum, MD & Ehab Hanna, MD

*Doral Ballroom A*

### **#2: Craniopharyngiomas**

- Transcranial Approaches to Craniopharyngiomas

- Endoscopic Endonasal Approaches to Craniopharyngiomas

- Management of Third Ventricular Craniopharyngiomas

MODERATOR: John Jane, Jr., MD

PANELIST: Fred Gentili, MD, Theodore Schwartz, MD & Luigi Cavallo, MD

*Doral Ballroom B*

### **#3: Primary Facial Nerve Tumors**

- Clinicoradiographic Assessment and “Wait and See” Approach

- Surgical Management

- Radiation Therapy

- Open Discussion and Case Presentation

MODERATOR: John Leonetti, MD

PANELISTS: Christopher Danner, MD, Rick Friedman, MD & Jonathan Sillman, MD

*Doral Ballroom C*

### **#4: Vascular Lesions of the Skull Base: Approaches and Management Strategies**

- Vascular Control in Skull Base Tumors

- Optimal Skull Base Approaches

- Minimally Invasive Eyelid Fronto-Orbital Craniotomy for Anterior Circulation Aneurysms

MODERATOR: Khaled Aziz, MD

PANELISTS: Khaled Aziz, MD, Ketan Bulsara, MD & Ivan Radovanovic, MD

*Doral Ballroom D*

# SCIENTIFIC PROGRAM

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

*Grand Ballroom*

9:30 am – 12:00 pm **PLENARY SESSION I**

*Doral Ballroom D*

9:30 am **Welcome** – Michael Chicoine, MD

9:35 am **3D Anatomy: Nasal Sinuses and Anterior Skull Base**

Juan Carlos Fernandez-Miranda, MD

*The North American Skull Base Society thanks Medtronic Surgical Technologies for its support of this session.*

10:00 am **Keynote Guest Lecturer: “Reliability: The Next Challenge in Health Care Quality Improvement”**

Vinod Sahney, PhD, Introduction by Carl Heilman, MD

10:30 am **Presidential Address: “The Complexity of Determining True Quality in Skull Base Surgery”**

Carl Heilman, MD

*The North American Skull Base Society thanks Stryker for its support of the Presidential Address.*

11:00 am **Top Abstract #1**

**133 RISK FACTORS ASSOCIATED WITH POST-OPERATIVE CSF LEAK** – Shannon Fraser, MD (presenter), Paul A Gardner, MD, Carl H Snyderman, MD, Maria Koutourousiou, MD, Juan Fernandez-Miranda, MD, Eric W Wang, MD, University of Pittsburgh

11:10 am **Comment on Abstract #1** – Jacques Morcos, MD

11:13 am **“Determining Quality from Discharge Claims Data”**

Fred Barker, MD

11:30 am **Honored Guest: “The Challenge of Educating Future Skull Base Surgeons”**

Jon Robertson, MD

12:00 pm – 1:00 pm **NASBS Business Meeting**

All NASBS members welcome: lunch will be provided

Lunch for non-members provided in Exhibit Hall

*Palms North*

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

## **#5: Tumors of the Orbit & the Optic Nerve**

*Doral Ballroom A*

- Role of Proton Beam Therapy in the Treatment of Skull Base Lesions of the Orbit
- Neoadjuvant Intra-arterial Cytoreductive 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**

*Doral Ballroom B*

- 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**

*Doral Ballroom C*

- 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**

*Doral Ballroom D*

- 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 SESSION I: Anterior Skull Base***Doral Ballroom A*

MODERATORS: Donald Annino, MD &amp; 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

**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 G Baker, MD, Annie Chan, MD, Daniel G Deschler, MD FACS, Derrick T Lin, MD FACS, Massachusetts General Hospital and Massachusetts Eye and Ear Infirmary

**QUESTION & ANSWER SESSION**

**007** VISUAL SYMPTOMATOLOGY OUTPACES ANATOMICAL OPTIC NERVE CHANGES IN OPTIC NERVE GLIOMA: CLUES TO EARLIER DETECTION AND DIAGNOSIS – Daniel M Raper, MBBS (presenter), Mark E Shaffrey, MD, Steven A Newman, MD, University of Virginia

**008** COMBINED MODALITY MANAGEMENT OF SINONASAL UNDIFFERENTIATED CARCINOMA – R Millard, Mr (presenter), N O'Shea, Ms, H Powell, Mr, S Yalamanchilli, Ms, J Siddiqui, Ms, A Sandison, Dr, G Wong, Mr, P Clarke, Mr, Charing Cross Hospital London UK

**009** ENDOSCOPIC ENDONASAL RESECTION OF SINONASAL UNDIFFERENTIATED CARCINOMA: THE UPMC EXPERIENCE – 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

**QUESTION & ANSWER SESSION****PROFFERED PAPER SESSION II: Chordomas & Various Endoscopic Approaches***Doral Ballroom B*

MODERATORS: Gavin Britz, MD &amp; 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 – Kaisorn 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

**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



# SCIENTIFIC PROGRAM

**014** ENDOSCOPIC ENDONASAL TRANSSPHENOIDAL APPROACH TO LARGE AND GIANT PITUITARY ADENOMAS: INSTITUTIONAL EXPERIENCE AND PREDICTORS OF EXTENT OF RESECTION – Kyle Juraschka, BHSc, Boris Krischek, MD PhD (presenter), Eric Monsalves, BS, Alex Kilian, Aisha Ghare, 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 – Garret 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 Gardner, 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** SUPRAORBITAL 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 PETROCLIVAL REGION – Sudheer Ambekar, MD (presenter), Chiazio 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 Wana, 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 – Sergei Terterov, MD (presenter), Marvin Bergsneider, MD, Department of Neurosurgery, David Geffen School of Medicine, University of California Los Angeles

## QUESTION & ANSWER SESSION

## PROFFERED PAPER SESSION IV: Sellar and Parasella Tumors

Laurel

MODERATOR: Albert Kim, MD

**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 McKean, 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

### QUESTION & ANSWER SESSION

**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 G 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, MDPH, Department of Neurosurgery, Fukushima Medical University

### QUESTION & ANSWER SESSION

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

**035** THE RECESSES OF THE SELLAR 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

### QUESTION & ANSWER SESSION

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## PROFFERED PAPER SESSION V: General Session

Doral Ballroom D

MODERATORS: Mario Ammirati, MD & James Liu, MD

**037** THE UTILITY OF HIGH RESOLUTION INTRAOPERATIVE MRI IN ENDOSCOPIC TRANSPHENOIDAL SURGERY FOR PITUITARY MACRODENOMAS: EARLY EXPERIENCE IN THE ADVANCED MULTIMODALITY IMAGE GUIDED OPERATING (AMIGO) SUITE – Kenneth De Los Reyes, MD (presenter), Daniel A Donoho, Ananth Narayan, MD, Carni Barkhoudarian, MD, Ning Lin, MD, Jordina Rincon-Torroella, 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 Koutourousiou, 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 FRCS (presenter), Constanza J Valdes, MD, Anthony Zeitouni, MD FRCS, Denis Sirhan, MD FRCS, Salvatore Di Maio, MD FRCS, McGill University Health Centre & Jewish General Hospital

### QUESTION & ANSWER SESSION

**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 Hullar, MD, David H Gutmann, MD PhD, John Evans, RN, Michael R Chicoine, MD, Washington University School of Medicine

# SCIENTIFIC PROGRAM

**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 M Liao, MD PhD, Neil Martin, MD, Antonio DeSalles, MD, Tania B Kaprealian, MD, Michael Selch, MD, Marvin Berg, UCLA Neurosurgery, Jonsson Comprehensive Cancer Center

**045** ENDOSCOPIC ENDONASAL TRANSPHENOIDAL 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**

*Grand Ballroom*

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

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

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

*Doral Ballroom A*

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 TRANSPHENOIDAL 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 ENDONASAL TRANSPHENOIDAL 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 ENDONASAL ENDOSCOPIC SKULL BASE SURGERY – Aaron R Cutler, MD (presenter), Chester F Griffiths, MD FACS, Huy T Duong, MD, Kian Karimi, MD, Gal 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 SELLA DEFECTS AFTER ENDOSCOPIC ENDONASAL 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

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#### PROFFERED PAPER SESSION VII: Head & Neck Tumors

*Doral Ballroom B*

MODERATORS: 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 G 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, Kunal M Patel, MD, Alexander A Khalessi, 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, MD Anderson Cancer Center

**060** PROGNOSTIC FACTORS AND CLINICAL OUTCOME IN THE TREATMENT OF EXTERNAL AUDITORY CANAL MALIGNANCIES – Venkatarthikeyan 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

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#### PROFFERED PAPER SESSION VIII: Meningiomas/Radiation Therapy

*Doral Ballroom C*

MODERATORS: 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), Shahrzad Jalali, PhD, Sidney Croul, MD, Gelareh Zadeh, MD PhD FRCPC, 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, MBBCh MD FRCSlrc FRCSEd FRCSSN 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

# SCIENTIFIC PROGRAM

**068** HEARING OUTCOMES AFTER PARTIAL TRANS LABYRINTHINE PETROUS APICECTOMY FOR PETROCLIVAL MENINGIOMAS – John W Wood, MD (presenter), Guyan Channer, MD, Jacques J Morcos, MD FRCS(Eng) FRCS(Ed), 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 SELLAR 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

Laurel

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 CAVERNOMA – 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 TRANS SPHENOIDAL 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, MD MBA, 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 Abila, 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

Doral Ballroom D

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, Chiazio 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 G 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 Mastrodimos, 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**

Grand Ballroom

## SATURDAY, FEBRUARY 16, 2013

6:30 am      **Breakfast/Registration**

Gallery

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

MODERATOR: Elie Rebeiz, MD

PANELISTS: Carl Snyderman, MD & Christopher Rassekh, MD

### #6: Sellar & Supra Sellar Tumors

Doral Ballroom B

MODERATOR: Theodore Schwartz, MD

PANELISTS: Daniel Kelly, MD & Edwards Laws, MD

### #7: Approach to Cavernous Sinuses

Doral Ballroom C

MODERATOR: Madison Michael, MD

PANELISTS: Carlos David, MD & Harry Van Loveren, MD

*The North American Skull Base Society thanks Stryker for its support of this seminar.*

### #8: Petrous Apex Lesions

Doral Ballroom D

• Radiology-Cholesterol Granulomas, Cholesteatomas, Chondrosarcomas & More

• Neurosurgical Approaches

• Neuro-Otological Approaches

MODERATOR: Nik Blevins, MD

PANELISTS: Hugh Curtin, MD & Paul Gardner, MD

# SCIENTIFIC PROGRAM

8:00 am – 9:00 am **CONCURRENT SESSIONS**

## #9: Juvenile Nasopharyngeal Angiofibromas

*Doral Ballroom A*

- Open Approaches
- Endoscopic Approaches
- Radiotherapy

MODERATOR: Richard Wein, MD

PANELISTS: Donald Annino, MD & Ricardo Carrau, MD

## #10: Chordomas

*Doral Ballroom D*

- 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

*Doral Ballroom C*

MODERATORS: Ryojo 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, Birsan Arici, MD, Martina Bally, MD, Claudine Blum, MD, Christopher Kelly, MD, Luigi Mariani, MD PHD, Sven Berkman, 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-CERVICAL 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 Feo Lee, 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 H<sub>2</sub>O<sub>2</sub> – 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 VIRTUAL OPERATION FIELD IN PATIENTS WITH SKULL BASE DISEASE – Masanori Yoshino, MD (presenter), Taichi 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

*Doral Ballroom D*

MODERATOR: Daniel Nuss, MD

PANELISTS: William Couldwell, MD, John Leonetti, MD & Anil Nanda, MD

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

*Grand Ballroom*

- 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 TRANSSPHEOIDAL 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)**
- 10:35 am **Top Abstract #3**  
**135** FLLL32 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***Doral Ballroom A*

- Benign Tumors
- Vascular Lesions-Pipeline and Other Embolization Devices
- Malignant Tumors

MODERATOR: Kadir Erkmen, MD

PANELISTS: Peter Kan, MD, Ali Krisht, MD &amp; Daniel Prevedello, MD

**#14: Adenoid Cystic Carcinoma & The Science of Perineural Invasion: Are Clear Margins Attainable for Advanced Disease?***Doral Ballroom B*

- Surgical Management
- Radiation
- Perineural Invasion

MODERATOR: Patrick Gullane, MD

PANELISTS: Brian Nussenbaum, MD, Richard Wong, MD &amp; Eugene Yu, MD

**#15: Acoustic Tumors: Managing Facial Paralysis***Doral Ballroom C*

- 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 &amp; Deidre Marshall, MD

## #16: CSF Leaks/Meningo-encephalocoeles & SCC Dehiscence

Doral Ballroom D

- Temporal Bone CSF Leaks
- Meningo-encephalocoeles
- 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

**097** ENDOSCOPIC AND OPEN RESECTION OF SPHENOID SINUS MENINGOENCEPHALOCELES WITH REPAIR OF SKULL BASE DEFECTS – Kelli L Crabtree, MD (presenter), Nick Rockefeller, Paul J Camarata, MD, Kevin J Sykes, MPH, Larry A Hoover, MD, University of Kansas Medical Center

**098** A COMPARISON OF OPERATIVE EXPOSURE BETWEEN THE LE FORT I OSTEOTOMY AND THE EXCLUSIVE ENDOSCOPIC TRANSNASAL APPROACH FOR MIDDLE AND LOWER CLIVAL LESIONS – Chris I Sanders Taylor, MD (presenter), P V Theodosopoulos, MD, L Zimmer, MD, J T Keller, PhD, University of Cincinnati

**099** INSTITUTIONAL REVIEW AND IDENTIFICATION OF INDICATIONS FOR ENDOSCOPIC EXPANDED ENDONASAL VERSUS CRANIOTOMY APPROACH TO ANTERIOR SKULL BASE MENINGIOMAS – Osaama 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

## QUESTION & ANSWER SESSION

**100** DIAGNOSTIC AND SURGICAL APPROACH TO ANTERIOR SKULL BASE CSF LEAKS IN A RHINOLOGY PRACTICE – Edward Hepworth, MD (presenter), Anne K Cosgriff, MD, David Solsberg, MD, Colorado Sinus Institute

**101** NODAL RECURRENCE IN OLFACTORY NEUROBLASTOMA – R Millard, Mr (presenter), N O'Shea, Ms, H Powell, Mr, S Yalamanchilli, Ms, A Sandison, Dr, P Clarke, Mr, Charing Cross Hospital London, UK

**102** BEYOND THE NASOSEPTAL FLAP: OUTCOMES AND PEARLS WITH SECONDARY VASCULAR FLAPS IN SKULL BASE RECONSTRUCTION – Mihir R Patel, MD (presenter), Robert Taylor, BS, Trevor G Hackman, MD, Deanna M Sasaki-Adams, MD, Matthew G Ewend, MD, Adam M Zanation, MD, University of North Carolina at Chapel Hill – School of Medicine

## QUESTION & ANSWER SESSION

**103** QUALITY OF LIFE PRESERVATION AFTER ENDOSCOPIC ENDONASAL EXTENDED TRANSPENOIDAL RESECTION OF CRANIOPHARYNGIOMAS – Oszkar Szentirmai, MD (presenter), Matei Banu, MD, Olga Akselrod, PA, Roheen Raithatha, MD, Stefan Mlot, MD, Vijay Anand, MD, Theodore Schwartz, MD, New York Presbyterian/Weill Cornell Medical Center

**104** ROLE OF ENDOSCOPY IN CASES OF SUSPECTED SKULL BASE ASPERGILLOSIS – Satyawati Mohindra, dr (presenter), Sandeep Mohindra, dr, Ashok K Gupta, professor, Sunil K Gupta, professor, post graduate institute of medical education and research

**105** COMPARISON OF SURGICAL FREEDOM AND AREA OF EXPOSURE IN THREE ENDOSCOPIC TRANSMAXILLARY APPROACHES TO THE ANTEROLATERAL CRANIAL BASE – Ali M. Elhadi, MD (presenter), George A.C.Mendes, MD, Kaith Almefty, MD, M. Yasher S. Kalani, MD PhD, Peter Nakaji, MD, Alexander Dru, BA, Mark C. Preul, MD, Andrew S. Little, MD, Barrow Neurological Institute

## QUESTION & ANSWER SESSION

## PROFFERED PAPERS XIII: Head & Neck Tumors & General Topics

Doral Ballroom B

MODERATORS: Christopher Rassekh, MD & Randal Weber, MD

**106** SYSTEMATIC ANALYSIS OF DIAGNOSTIC MOLECULAR MARKERS FOR INTRACRANIAL GERM CELL TUMORS – 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

**107** SINONASAL CHONDROSARCOMA: A CASE SERIES AND REVIEW OF THE LITERATURE – Josh C Meier, MD (presenter), Aaron K Remenschneider, MD, Kyle Chambers, MD, Alice C Lin, MD, Marc W Herr, MD, Stacey T Gray, MD, Derrick T Lin, MD, Massachusetts Eye and Ear Infirmary

**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 Purtell, 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 Flis, 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 SELLAE: 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 ENDOSCOPIC SKULL BASE SURGERY – M Bergsneider, MD (presenter), J Hauptman, MD PhD, A Cutler, MD, M B Wang, MD, UCLA

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

#### QUESTION & ANSWER SESSION

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#### PROFERRED PAPERS XIV: Sellar and Parasellar Tumors

*Doral Ballroom C*

MODERATORS: John Jane, Jr., MD & Dan Kelly, MD

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

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

**117** REPEAT ENDOSCOPIC TRANSPHENOIDAL SURGERY FOR ACROMEGALY: 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** ENDOSCOPIC 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 SELLAR-SUPRASSELLAR TUMORS – Adam M Olszewski, 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 TRANSSPHENOIDAL 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, Gurston 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 ENDOSCOPIC ENDONASAL SELLAR/SUPRASSELLAR 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 Terterov, 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 TRANSSPHENOIDAL PARASSELLAR SURGERY – Kyle Weaver (presenter), Robert Webster, Philip Swaney, Jessica Burgner, Paul Russell, Hunter Gilbert, James Bekeny, Richard Hendrick, Vanderbilt University

#### QUESTION & ANSWER SESSION



# SCIENTIFIC PROGRAM

## PROFERRED PAPERS XV: Vestibular Schwannomas

*Doral Ballroom D*

MODERATORS: Nik Blevins, MD & Carlos David, MD

**124** SURGICAL TREATMENT OF SMALL VESTIBULAR SCHWANNOMAS. DOES THIS REMAIN A GOOD OPTION? – Amjad N Anaizi, 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 G 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 NATIONWIDE INPATIENT DATA SAMPLE STUDY (2005-2009) – Ashish Sonig, MD 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, HBS, Hooman Pebdani, MD, Eric Monsalves, HBS, 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 MANAGMENT 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, MICROSURGERY, 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, BS, 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**

*Grand Ballroom*

4:00 pm – 4:20 pm **CPT Coding**  
Kim Pollack, RN, MBA, CPC

*Doral Ballroom D*

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

*Doral Ballroom D*

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!

*Spa Pool*

## SUNDAY, FEBRUARY 17, 2013

7:30 am **Breakfast/Registration**

*Grand Ballroom*

8:00 am – 9:00 am **BREAKFAST SEMINARS: HOW I DO IT**

### #9: Far Lateral Approach

*Doral Ballroom A*

MODERATOR: Siviero Agazzi, MD

PANELISTS: Robert Cueva, MD & Chandranath Sen, MD

**#10: Jugular Foramen**

MODERATOR: James Kryzanski, MD

PANELISTS: James Liu, MD &amp; Jon Robertson, MD

*Doral Ballroom B***#11: Petroclival Meningiomas**

MODERATOR: Vikram Prabhu, MD

PANELISTS: Johnny Delashaw, MD &amp; Jacques Morcos, MD

*Doral Ballroom D*9:00 am – 10:00 am **CONCURRENT SESSIONS****#17: NF2**

• Hearing in NF 2 Patients-Preservation &amp; Augmentation

• Chemotherapy for NF2

• Case Presentations for NF-2

MODERATOR: Fred Barker

PANELISTS: Fred Barker, MD, Marlen Hanson, MD &amp; John Golfinos, MD

*Doral Ballroom A***#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 &amp; Madison Michael, MD

*Doral Ballroom B***#19: Trigeminal Schwannomas**

• Microsurgical Transcranial Approaches

• Endoscopic Approaches

• Radiosurgery

MODERATOR: A. Samy Youssef, MD

PANELISTS: Mario Ammirati, MD &amp; Vijay K. Anand, MD

*Doral Ballroom C***#20: Expert Case Review. Unknown Cases Presented to Panel for Opinions & Recommendations**

MODERATOR: Amir Dehdashti, MD

PANELISTS: Fred Gentili, MD, Ehab Hanna, MD &amp; Daniel Nuss, MD

*Doral Ballroom D*10:00 am – 10:30 am **Break with Exhibitors***Grand Ballroom*10:30 am – 12:45 pm **PLENARY SESSION***Doral Ballroom D*10:30 am **Quality Care for Anterior Skull Base Malignancy**10:30 am **The Best Quality Surgery is Achieved Using a Craniotomy**

Franco Demonte, MD

10:50 am **The Best Quality Surgery is using an Endoscopic Only Approach**

Ehab Hanna, MD

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 University11:20 am **Comment on Top Abstract #5** – Michael Link, MD11:23 am **Top Abstract #6****138** TRANSORAL ROBOTIC SURGERY FOR PARAPHARYNGEAL SPACE MASSES: INDICATIONS AND RESULTS – Christopher H Rassekh, MD (presenter), Shyanne A Lajud, MD, Courtney B Shires, MD, Laurie A Loevner, MD, Ara A Chalian, MD, Gregory S Weinstein, MD, Bert W O'Malley, Jr MD, University of Pennsylvania Department of Otorhinolaryngology-Head and Neck Surgery11:33 am **Comment on Top Abstract #6** – Ehab Hanna, MD11:36 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** – Smruti K 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 and Dentistry of New Jersey, New Jersey Medical School, Newark, NJ

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

**142 OBSTRUCTIVE SLEEP APNEA IN PATIENTS UNDERGOING ENDOSCOPIC 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 Garnet, 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** – Chiao 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 ENDOSCOPIC 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 ENDOSCOPIC 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 ENDOSCOPIC ENDONASAL RESECTION OF CLIVAL CHORDOMAS?** – Alfred Marc C Iloreta, MD (presenter), Gurston G Nyquist, MD, Mark Friedel, MD, Mark R Rosen, MD, Christopher J Farrell, MD, James J Evans, MD, Thomas Jefferson University

**151 ENDOSCOPIC 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 ENDOSCOPIC 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 TRANSSPHENOIDAL 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, BS (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 TRANSSPHENOIDAL 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
- 163 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
- 164 THE COMPOSITE MUCOSAL CARTILAGINOUS SEPTAL FLAP FOR ENDOSCOPIC SKULL BASE RECONSTRUCTION** – Marc A Tewfik, MD MSc FRCSC (presenter), Peter-John Wormald, MD FRCS FRACS, McGill University Health Centre & Adelaide University
- 166 PEDICLED MUCOCHONDRAL 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
- 167 ENDOSCOPE-ASSISTED MICROSURGICAL RESECTION OF A PETROCLIVAL ARTIFICIAL TUMOR MODEL WITH RETROSELLAR EXTENSION USING A RETROSIGMOID APPROACH: A CADAVERIC STUDY AND ANALYSIS OF SUPRATENTORIAL WORKING AREA** – Varun Kshetry, MD (presenter), Silky Chotai, MD, Jack Hou, BS, Tariq Lamki, MD, Mario Ammirati, MD MBA, Ohio State University, Cleveland Clinic
- 168 RECONSTRUCTIVE CHALLENGES IN THE EXTENDED ENDOSCOPIC TRANSCALIVIAL APPROACH** – Ameet R Kamat, MD (presenter), Gregg Goldstein, MD, James N Palmer, MD, John YK Lee, MD, Jason G Newman, MD, Nithin D Adappa, MD, University of Pennsylvania
- 169 ASSESSMENT OF FRONTAL LOBE SAGGING AFTER ENDOSCOPIC ENDONASAL TRANSCRIBIFORM 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, Osamah J 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 MUCOCHONDRAL 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 TRANSPERTYGOID APPROACH FOR SPONTANEOUS MENINGOENCEPHALOCELE OF THE SPHENOID WING WITH LATERAL SPHENOID SINUS EXTENSION** – Abdulrazag Ajan, 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 INFRATEMPORAL FOSSA: SURGICAL ANATOMY AND EXPANDING CLINICAL INDICATIONS** – K Boahene, MD (presenter), S Raza, MD, M Ishii, M Llm, D Reh, G Gallia, A Quinone-Hinojosa, The Johns Hopkins University school of Medicine
- 175 ROBOTIC NAVIGATION OF THE INFRATEMPORAL 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 C Illoreta, MD (presenter), Anthony G Del Signore, MD, Sujana S Chandrasekhar, MD, Mount Sinai School of Medicine
- 178 ENDOSCOPIC TREATMENT OF CRANIOORBITAL 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 CYSTS 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 INFRATEMPORAL AND PTERYGOMAXILLARY FOSSA TREATED BY COMBINED ENDOSCOPIC APPROACH** – Francois Cloutier, MD (presenter), Geneviève 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 Terterov, 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 INFRATEMPORAL FOSSA PRESENTING WITH CRANIAL NERVE DEFICIT** – Myreille D'Astous, 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, Galeão 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 Opher, 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 DACVIMO (presenter), Jocelyn Riehl, DVM, University of Illinois at Urbana-Champaign
- 195 MYOEPIITHELIOMA OF THE SKULL BASE AND ORBIT: CASE REPORT, IMMUNHISTOPATHOLOGY 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- AIIMS 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, José A Landeiro, MD PhD, Galeão Air Force Hospital
- 202 TIME TO ESTHESIONEUROBLASTOMA 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 Shahlaie, 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 Berbeo, 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 Universitario San Ignacio, Pontificia Universidad Javeriana, Bogotá, Colombia.
- 210 INTRADURAL ANTERIOR PETROSECTOMY FOR PETROCLIVAL MENINGIOMAS** – Sunil K Gupta, title (presenter), department of neurosurgery, pgimer, chandigarh, india

- 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 TRANSPHENOIDAL APPROACHES TO THE SELLAR 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 ABSCESES PRESENTING AS PSEUDO-APOPLEXY. ABOUT 2 UNUSUAL CASES** – Moujahed Labidi, MD (presenter), Akli Zetchi, MD, Genevieve Lapointe, MD FRCSC, CHU de Quebec, Hopital de l'Enfant-Jesus
- 228 THE ROLE OF IMAGE FUSION NEURONAVIGATION IN REPEATED TRANSPHENOIDAL 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 COMPRESSING 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
- 233 GROWTH AND INVASION PATTERNS OF PITUITARY ADENOMAS: CORRELATIONS TO MIB-1, P27 AND FGFR4** – Eric Monsalves, Soroush Larjani, Bruno Loyola Godoy, Boris Krischek, Kyle Juraschka, Adrienne Yang, Sylvia L. Asa, Ozgur Mete, Fred Gentili, Allan Vescan, Gelareh Zadeh (presenter), University Health Network, Toronto, Ontario
- 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 TRANSPHENOIDAL SURGERY FOR ACROMEGALY AND CUSHING'S DISEASE: 6 YEAR EXPERIENCE** – Oscar Feo Lee, MD, Silvia Tatiana Quintero Oliveros, MD, Roberto Díaz, 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, Clínica 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 Siddiqi, 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 Mirsaeeedi-Farahani, BS BBA, Marie Kerr, CCRP, John Y Lee, MD (presenter), University of Pennsylvania
- 244 AN ENDOSCOPIC TRANSANTRAL 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 Neurological Surgery. 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 Neurological Surgery. University of Indiana, Department of Neurological Surgery
- 248 ANATOMIC AND RADIOGRAPHIC STUDY OF ANTERIOR SURGICAL APPROACHES TO THE INFRATEMPORAL FOSSA** – Xuewei 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

# POSTER SESSIONS

*Posters will be open during all exhibit hours in the Exhibit Hall.*

- 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** – Chiazio 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** – Mayshan 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 Koutourousiou, 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 TRANSTENTORIAL 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 PALSIES** – 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 NEUROOTOLOGIC 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 TRANS LABYRINTHINE CRANIOTOMY APPROACH TO THE CEREBELLOPONTINE ANGLE** – John P Leonetti, MD, Nadieska 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), Yuri 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 Telischi, MD, Ronen Nazarian, MD (presenter), Daniel Jethanamest, 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 Jethanamest, MD (presenter), Sachin Gupta, MD, Jacques J Morcos, MD, Fred F Telischi, 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 READABILITY ASSESSMENT OF INTERNET-BASED PATIENT EDUCATION MATERIALS RELATED TO ACOUSTIC**

**NEUROMAS** – Deepa V Cherla, Saurin Sanghvi, BS (presenter), Osamah J Choudhry, BA, Robert W Jyung, 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 TEGMEN DEFECT RESULTING IN SPONTANEOUS CEREBROSPINAL FLUID LEAK FOLLOWING TYMPANOSTOMY,**

**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 TYMPANOJUGULAR 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

**278 OUTCOMES OF MIDDLE FOSSA SKULL BASE DEFECTS REPAIRED USING A NOVEL COMBINATION OF MATERIALS**

– Chiazio 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 Jyung, 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 EXTIRPATED 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 INFRATEMPORAL 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 GRANULOMAS WITH DOUBLE BARREL STENTS**

– Nael Shoman, MD, Ravi Samy, MD, Myles L Pensak, MD, Hwa J Son, MD (presenter), University of Cincinnati



# NOTES

*Save the date!*

NORTH AMERICAN SKULL BASE SOCIETY

# 24<sup>th</sup> Annual Meeting

**FEBRUARY 14-16, 2014**

*Pre-meeting Course February 12-13, 2014*

*San Diego, California*



## Call for Abstracts *Abstract Submissions will open May 2013*

NASBS will be accepting online submissions for oral or poster presentations. Topics Include:

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- Head and Neck Tumors
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- Temporal Bone/Otology/Acoustic Tumors
- Endoscopic Techniques
- Meningiomas
- Chordomas
- Skull Base Radiosurgery
- Skull Base Anatomy
- Innovative Technologies
- Skull Base Trauma
- Rehabilitation
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Awards will be given to top Medical Student and Resident Papers! We encourage everyone to submit an abstract, whether or not you are a member of the NASBS.

For general information regarding the meeting please contact Maribeth Balon at 310-424-3326, ext. 125, or [maribeth@nasbs.org](mailto:maribeth@nasbs.org).

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