

Final Program

NORTH AMERICAN SKULL BASE SOCIETY

24th Annual Meeting

“Skull Base: Defining Value-Based Care”

PRESIDENT: Ehab Hanna, MD, FACS

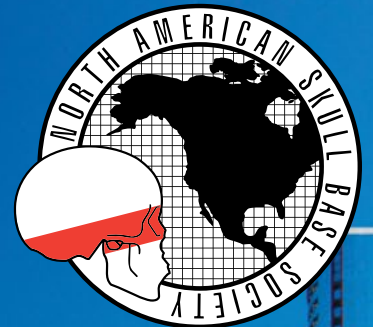
SCIENTIFIC PROGRAM CHAIR: Ricardo Carrau, MD

PRACTICAL COURSE DISSECTION CHAIRS:
James J. Evans, MD, Rick Friedman, MD, PhD,
& Carl Snyderman, MD, MBA

FEBRUARY 14-16, 2014

Pre-Meeting Practical Courses: February 12-13, 2014

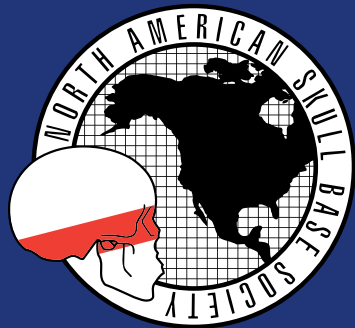
Grand Manchester Hyatt, San Diego, California



www.nasbs.org

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CONTACT

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Los Angeles, California, 90064
PHONE: 310-424-3326
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www.nasbs.org

HOTEL CONTACT:

Manchester Grand Hyatt San Diego
One Market Place
San Diego, California
RESERVATIONS: 888-421-1442
or 402-592-6464 and mention "North
American Skull Base Society"
Manchestergrand.hyatt.com

Welcome

Dear Colleagues,

Welcome to the **24th Annual NASBS Meeting** at the Grand Manchester Hyatt in beautiful San Diego!

The pre-meeting practical course this year offers a unique opportunity to simultaneously compare open and endoscopic approaches of various regions of the skull base. Another unique feature this year is the option of two separate attendance tracks. The "hands-on" track attendees have the opportunity to follow the prosection by the faculty and apply it through hands-on cadaver dissection with the guidance of expert instructors. The second option, the "Lectures track", which is offered for the first time will allow attendees to watch the faculty prosection and then attend several lectures by experts on the field describing the various surgical techniques with video demonstrations.

The theme of this year's annual meeting is "Skull Base: Defining Value Based Care". The Scientific Program Committee chaired by Ricardo Carrau, and co-chaired by James Evans, Rick Friedman, and Carl Snyderman, presents an outstanding scientific program. This year we have 12 breakfast seminars, 20 concurrent sessions/panels, and daily plenary sessions that include keynote lectures, several symposia, round tables, debates, posters and proffered presentations. Featured guest speakers include Ivo Janecka, MD, PhD, MBA, Sam Al-Mefty, MD and Piero Nicolai, MD. The keynote speaker is David Dravecky, a major league baseball player whose career was cut short when a malignant desmoid tumor required the amputation of his left arm and shoulder. Together with his wife Jan, Dave founded the non-profit organization Endurance to help alleviate the suffering of others battling with cancer. Dave will share with us how he personally endured through this tragedy and turned it into his life vision which I am sure will be inspirational. San Diego offers a spectacular venue this time of the year and I am sure will be enjoyable to all attendees and their families.

Ehab Hanna, MD, FACS
President, NASBS



ANNUAL MEETING OBJECTIVES

At the conclusion of this activity, participants should be able to:

- Understand and explain the most recent recommendations for the 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 the skull base pathologies
- Express knowledge recent development in the management of skull base pathologies as presented

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 professional will include physical therapists, oncology nurses, oral health specialists, occupational therapists, speech and language pathologists, optometrists, psychologists and anaplasologists.

ACCREDITATION STATEMENT

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

AMA PRA CATEGORY 1 CREDITS™

The American College of Surgeons designates this live activity for a maximum of 20 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.



American College of Surgeons
Division of Education

Meeting Leadership

NASBS SCIENTIFIC PROGRAM COMMITTEE

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President

Ricardo Carrau, MD
Chair

James J. Evans, MD
Co-Chairman for Neurosurgery

Carl Snyderman, MD, MBA
Co-Chairman for Head and Neck

Rick Friedman, MD, PhD
Co-Chairman for Neuro-Otology

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 **The Final Program and abstracts can be viewed by visiting www.nasbs.org.**

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1990	Paul J. Donald, MD
1991	Laligam 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	Ossam 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	John 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
2010	Peter Neligan, MD
2011	Dennis Kraus, MD
2012	Carl Heilman, MD
2013	Ehab Hanna, MD, FACS

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, *The Journal of Neurological 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 for more information or email membership@nasbs.org.

Meeting Hours

REGISTRATION HOURS

Thursday, February 13, 2014	2:00 pm – 6:00 pm
Friday, February 14, 2014	6:30 am – 7:00 pm
Saturday, February 15, 2014	6:30 am – 5:30 pm
Sunday, February 16, 2014	6:30 am – 11:00 am

EXHIBIT HALL/POSTER HOURS

Friday, February 14, 2014

9:00 am – 4:00 pm	Hall Open
5:30 pm – 7:00 pm	Hall Open
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	Refreshment 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 15, 2014

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

Sunday, February 16, 2014

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

On behalf of the North American Skull base Society, the following awards were given this year:

BEST PAPER BY A MEDICAL STUDENT

ABSTRACT TITLE: "Comparison of Open and Transnasal Endoscopic Approaches to the Skull Base in the Endoscopic Skull Base Era"

Justin Miller, BSPH

The University of North Carolina at Chapel Hill, Department of Otolaryngology/Head and Neck Surgery, Chapel Hill, NC

BEST RESIDENT CLINICAL PAPER

ABSTRACT TITLE: "Surgical Management of Nonmelanoma Skin Cancers Involving the Skull Base"

Shaan M. Raza, MD

UT MD Anderson Cancer Center, Department of Neurosurgery, Houston, TX

BEST RESIDENT BASIC SCIENCE

ABSTRACT TITLE: "Comparative Proteomic Profiling Using Two-Dimensional Gel Electrophoresis and Identification Via LC-MS/MS Reveals Protein Biomarkers That Distinguish Aggressive From Non-Aggressive Phenotypes of WHO Grade I Meningioma"

Joshua Osburn, MD

University of Washington, Department of Neurological Surgery, Seattle, WA

Distinguished Service Award

Daniel W. Nuss, MD, FACS

George D. Lyons Professor and Chairman, LSU Department of Otolaryngology - Head and Neck Surgery, New Orleans, LA

Daniel W. Nuss, a native of New Orleans, completed his undergraduate and medical education at Louisiana State University. After medical school, he served two years as a resident in General Surgery and was honored as Charity Hospital's Intern of the Year (1981-82), and as Surgery Resident of the Year (1982-83).

In 1984, Dr. Nuss spent six months as visiting Resident in Head and Neck Oncology at M.D. Anderson Hospital in Houston, Texas. He then completed his Otolaryngology residency at L.S.U. in 1987. That same year, he became board certified, having achieved the highest possible score on the American Board of Otolaryngology's exam.

Dr. Nuss then joined the faculty of the LSU Department of Otolaryngology. In 1989-91, he completed clinical and research fellowships in Surgery of the Cranial Base, at the University of Pittsburgh's Center for Cranial Base Surgery. During that time, he was also appointed Visiting Instructor in the University of Pittsburgh's Department of Otolaryngology.

In 1991, Dr. Nuss rejoined the LSU faculty, focusing in head and neck oncology and skull base surgery. He became Residency Program Director in 1993, and Vice Chairman in 1994. In 1996 he was named Department Chairman and has served in that capacity ever since. He is jointly appointed as Professor in the LSU Departments of Otolaryngology and Neurosurgery, and in the LSU Neurosciences Center. In 2005, Dr. Nuss became the recipient of the George D. Lyons M.D. Chair in Otolaryngology. Later that year, after hurricane Katrina devastated New Orleans and its hospitals, he and his faculty developed a unique model for a regional residency program, which has continued to thrive and has received widespread recognition.

Dr. Nuss' clinical practice includes management of tumors and reconstructive problems of the skull base, endoscopic and minimally invasive head and neck surgery, and traditional head and neck oncology. In 2012 he was named in the "Top 1% of Otolaryngologists in the U.S.", according to *US News & World Report*.

Dr. Nuss has to his credit more than 100 publications, including peer-review articles, book chapters, and reviews. He has given over 150 scientific presentations, and has been an invited speaker on five continents.

Dr. Nuss is a Past President of the North American Skull Base Society (2009), previous Secretary of the World Federation of Skull Base Societies, Fellow of the American Academy of Otolaryngology-Head and Neck Surgery, Fellow of the American College of Surgeons, and Fellow of the American Head and Neck Society. He serves as a Senior Examiner for the American Board of Otolaryngology, and is an Associate Editor for multiple scientific journals.

Dr. Nuss and his wife Wilma have been married for more than 30 years and they have a very busy and talented teen-age daughter, Olivia. In his spare time, Nuss plays lead guitar for a New Orleans-based rock-n-roll band, whose activities include fund-raising for local schools, churches, cancer patients, cancer research, and other worthy causes.



Dr. Daniel W. Nuss

Honored Guest Lecturers

Ivo P. Janecka, MD, MBA, PhD FRIDAY, FEBRUARY 14, 10:15 AM

Trained in New York City at Columbia University, directed/co-directed interdisciplinary and multi-institutional Centers of Excellence, focusing on the skull base, at the University of Pittsburgh and Harvard Medical School; recently worked as a health care executive in the Middle East; MBA has health care focus and the PhD is in Applied Management and Decision Sciences; held academic and executive positions with the rank of Professor, Director, Head as well as CEO, Chief Medical Officer, Executive VP, and Managing Director; currently engaged in active consulting practice serving patients, physicians, students, academic and health care organizations as well as investment houses, corporations, and law firms; also serves as Director/Board member of two non-profit 501(c)3 Foundations.



Dr. Ivo P. Janecka

Ossama Al-Mefty, MD FRIDAY, FEBRUARY 14, 11:30 AM

Ossama Al-Mefty was born in Damascus, Syria. He completed his medical school at the Damascus University Medical School in 1972 and his neurosurgical training was completed at West Virginia University Medical Center. Dr. Al-Mefty is the Director of the Skull Base Surgery Program at Brigham and Women's Hospital, Harvard Medical School in Boston, MA. He has served as a Professor of Neurosurgery at Mississippi Medical Center, Loyola University Medical Center in Chicago, and Professor and Chairman of Neurosurgery at the University of Arkansas from 1993-2009.

Dr. Al-Mefty's area of interest and expertise is skull base surgery, pioneering, and contributing to this field through numerous publications. His scientific contributions are reflected in over 450 publications that include authoring or editing nine books and 205 peer reviewer journal articles. He is a sought after lecturer and has made over 700 presentations and over 70 Visiting Professorships in national and international universities. He is a dedicated teacher and has been faculty and director of over 50 workshops and hands-on courses.

Dr. Al-Mefty is a member of several surgical societies and has served in various leadership roles including as a founding member and past president of the North American Skull Base Society and The World Academy of Neurological Surgery. Dr. Al-Mefty serves on several editorial boards of medical journals. He has been honored by several prestigious lectureships including the First Sugita Memorial Lecturer and the Penfield Lecturer and presented with honorary memberships in skull base and neurosurgical societies abroad. He was recently awarded the Olivercrona Medalist for recognition of his outstanding contributions to the neurosurgical field, based on development of microsurgical techniques, pedagogical skills or scientific contributions as well as the Paul Bucy Education Award for his dedication to education in Neurosurgery.



Dr. Ossama Al-Mefty

Piero Nicolai, MD SATURDAY, FEBRUARY 15, 9:30 AM

Piero Nicolai, MD is Professor and Chairman of the Otorhinolaryngology – Head and Neck Surgery Unit and Director of the Department of Surgical Specialties, Radiologic Sciences, and Public Health at the University of Brescia (Italy). He received his MD degree at the University of Padua, where he also completed his residency programme in Otolaryngology and subsequently in Medical Oncology. His clinical and research activities are mainly focused on head and neck oncology and endoscopic sinus and skull base surgery.

Prof. Nicolai is an active member of several medical societies: Società Italiana di Otorinolaringologia e Chirurgia Cervico-Facciale, Società Italiana del Basicranio, European Skull Base Society, American Academy of Otolaryngology - Head and Neck Surgery, European Rhinologic Society, European Laryngological Society, American Head and Neck Society, American Rhinologic Society, American Laryngological Association, Cartesian Society, European Academy of Oto-Rhino-Laryngology, Head and Neck Surgery, Associazione Italiana Oncologia Cervico Cefalica, and Italian Academy of Rhinology. He is currently serving as Secretary of the European Academy of Oto-Rhino-Laryngology, Head and Neck Surgery and as Member of the Executive Committee of the European Skull Base Society. In 2009, he was awarded the American Academy of Otolaryngology-Head and Neck Surgery Honor Award in recognition of his volunteer contributions to the Academy and its Foundation.

Prof. Nicolai has authored or co-authored 160 papers in peer-reviewed journals as well as 49 book chapters. He was co-editor of a book on "Imaging in Treatment Planning for Sinonasal Diseases", and Editor of 3 issues of Current Opinion in Otolaryngology & Head and Neck Surgery on Head and Neck Oncology. He is a member of the editorial board of five journals: Annals of Otolaryngology, Rhinology & Laryngology, Current Opinion in Otolaryngology & Head and Neck Surgery, Head & Neck, International Journal of Head and Neck Surgery, and The Laryngoscope.



Dr. Piero Nicolai

Speaker Highlight

Keynote Speaker: David Dravecky SATURDAY, FEBRUARY 15, 10:00 AM

My story is one of finding hope, courage and perseverance in the midst of dark and overwhelming uncertainty. In 1988, I was at the top of my game and my life. Not only did I have a wonderful family but I was also at the peak of my career, playing the game of my childhood dreams. My opening day victory over the Dodgers was overshadowed later that fall by the discovery of cancer and the removal of half of the deltoid muscle in my pitching arm. After battling cancer in my pitching arm, I came back a year later to defy the odds and pitch once again in the Major Leagues. Despite being told by my doctors, "Short of a miracle, you'll never pitch again," I pitched a 4-3 win for the San Francisco Giants that day.

Sadly, my comeback was short-lived. Five days later, I threw "...the pitch that could be heard round the world." My arm had split in two. As I tumbled to the ground, my mind filled with doubt and fear.

After my comeback and fall from the mound, the cancer returned, yet again. The arm refused to get better so I decided to retire from my dream, the game of baseball, in November of 1989. Finally, the arm along with my shoulder blade and the left side of my collarbone had to be amputated for fear the cancer would spread and take my life. Little did I know that the loss of my childhood dream would become a platform to share hope with the suffering around the world.

The challenges I've faced in the years following have taught me volumes and I now travel the country sharing the lessons I've learned—lessons on how to navigate loss and suffering, and how to experience encouragement and hope. More recently I've been exploring how we define our true worth, learning that it's not what you do that matters most—it's who you are. The experiences of my life have drawn me to discover and share about the value and significance of relationships—relationships with co-workers, family members and anyone else on 'my team.' My personal experiences have also taught me to evaluate life—challenging myself as well as others to press on towards our future goals.



David Dravecky



Meeting 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.

NASBS SCIENTIFIC PROGRAM COMMITTEE

Ehab Hanna, MD, FACS
President

Ricardo Carrau, MD
Chair

James J. Evans, MD
Co-Chairman for Neurosurgery

Carl Snyderman, MD, MBA
Co-Chairman for Head and Neck

Rick Friedman, MD, PhD
Co-Chairman for Neuro-Otology

Meeting Faculty & Disclosures

NAME	DISCLOSURES	INSTITUTION	CITY/COUNTRY
Aaron Dumont, MD	Ev3, Consultant fee (<\$1000), Consultant	Tulane University	New Orleans, LA, USA
Adam Zanation, MD	Nothing to disclose	University of North Carolina at Chapel Hill	Chapel Hill, NC, USA
Alexander Chiu, MD	Olympus Gyrus, Honorarium, Consultant Teva Pharmaceuticals/Meda Pharmaceuticals, Honorarium, Consultant	University of Arizona	Tucson, AZ, USA
Alfio Piva, MD	Nothing to disclose	University of Costa Rica	San Jose, Costa Rica
Allan Vescan, MD	Merck/Advisory Board, Stipend/Honoraria, Advisory Board	Mt. Sinai Hospital – University of Toronto	Toronto, ON, Canada
Amir Dehdashti, MD	Nothing to disclose	Cushing Neuroscience Institute – North Shore University Hospital	Manhasset, NY, USA
Anand Germanwala, MD	Nothing to disclose	Loyola University SOM	Maywood, IL, USA
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Annie Chan, MD	Nothing to disclose	Massachusetts General Hospital	Boston, MA, USA
B. Gregory Thompson, MD	Nothing to disclose	University of Michigan Neurosurgery	Ann Arbor, MI, USA
Benedict J. Panizza, MD	Cochlear Ltd, Stock Holder, N/A	Princess Alexandra Hospital	Queensland, Australia
Bradley Otto, MD	Nothing to disclose	The Ohio State University	Columbus, OH, USA
C. Arturo Solares, MD	Nothing to disclose	Georgia Regents University	Augusta, GA, USA
Carl Heilman, MD	Nothing to disclose	Tufts Medical Center	Boston, MA, USA
Carl Snyderman, MD, MBA	SPIWay LLC, Stock Options, Consultant	University of Pittsburgh Medical Center	Pittsburgh, PA, USA
Chandranath Sen, MD	Nothing to disclose	New York University Medical Center	New York, NY, USA
Charles Teo, MBBS	Aesculap, Honrarium, Consultant	Prince of Wales Private Hospital	Sydney, NSW, Australia
Chester F. Griffiths, MD	Nothing to disclose	Pacific Eye and Ear Specialists	Los Angeles, CA, USA
Christopher Farrell, MD	Nothing to disclose	Thomas Jefferson University Hospital	Philadelphia, PA, USA
Christopher Rassekh, MD	Nothing to disclose	University of Pennsylvania	Philadelphia, PA, USA
Claudia Kirsch, MD	Informa PLC, Royalties, Royaltyholder	The Wexner Medical Center, The Ohio State University College of Medicine	Columbus, OH, USA
Claudio Cernea, MD, PhD	Nothing to disclose	University of Sao Paulo Medical School	Sao Paulo, Brazil
Clifton D. Fuller, MD, PhD	Elekta AB/Phillips Medical Systems, Seed Grant, Researcher General Electric Medical Systems, In-Kind Grant Award, Researcher	The University of Texas MD Anderson Cancer Center	Houston, TX, USA
Daniel Fliss, MD	Nothing to disclose	Tel Aviv Sourasky Medical Center	Tel Aviv, Isreal
Daniel Kelly, MD	Mizuho Inc, Royalties, Consultant	John Wayne Cancer Institute at St. Johns Health Center	Santa Monica, CA, USA

Meeting Faculty & Disclosures

NAME	DISCLOSURES	INSTITUTION	CITY/COUNTRY
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Daniel Pieper, MD	Stryker, Reimbursement, Consultant Greater Michigan Gamma Knife, Salary, Board Member Greater Michigan Gamma Knife, Dividend, Stockholder	Michigan Head & Spine Institute	Novi, MI, USA
Daniel Prevedello, MD	Nothing to disclose	The Ohio State University	Columbus, OH, USA
Dave Dravecky	Nothing to disclose	Endurance with Jan & Dave Dravecky	Littleton, CO, USA
David Rosenthal, MD	Nothing to disclose	The University of Texas M.D. Anderson Cancer Center	Houston, TX, USA
Dennis Kraus, MD	Nothing to disclose	Lenox Hill Hospital	New York, NY, USA
Deric Park, MD	Nothing to disclose	University of Virginia	Charlottesville, VA, USA
Derrick Lin, MD	Medtronics, Consulting Fee, Consultant	Harvard Massachusetts Eye and Ear	Boston, MA, USA
Diana Bell, MD	Nothing to disclose	MD Anderson Cancer Center	Houston, TX, USA
Donald Annino, MD	Nothing to disclose	Brigham & Women's Hospital	Boston, MA, USA
Edward E. Kassel, DDS, MD	Nothing to disclose	Mt. Sinai Hospital	Toronto, Canada
Edward Laws, MD	Nothing to disclose	Brigham & Women's Hospital	Boston, MA, USA
Ehab Hanna, MD, FACS	Nothing to disclose	UT MD Anderson Cancer Center	Houston, TX, USA
Elizabeth Tyler-Kabara, MD, PhD	Nothing to disclose	University of Pittsburgh	Pittsburgh, PA, USA
Eric Chang, MD	Elekta Oncology Users Meeting, Honorarium, Speaker	LAC+USC Medical Center	Los Angeles, CA, USA
Eric Sauvageau, MD	Nothing to disclose	The Ohio State University Wexner Medical Center	Columbus, OH, USA
Eric Wang, MD	Nothing to disclose	University of Pittsburgh	Pittsburgh, PA, USA
Erin McKean, MD	Nothing to disclose	University of Michigan	Ann Arbor, MI, USA
Eugene Yu, MD	Nothing to disclose	Princess Margaret Hospital	Toronto, ON, Canada
Felipe Santos, MD	Nothing to disclose	Harvard Medical School: Massachusetts Eye and Ear	Boston, MA, USA
Fernando L. Dias, MD	Nothing to disclose	Brazilian National Cancer Institute	Rio de Janeiro, Brazil
Franco De Monte, MD	Nothing to disclose	The University of Texas M.D. Anderson Cancer Center	Houston, TX, USA
Frank Hsu, MD, PhD	Nothing to disclose	University of California Irvine	Irvine, CA, USA
Fred G. Barker, MD	Nothing to disclose	Massachusetts General Hospital	Boston, MA, USA
Fred Gentili, MD	Nothing to disclose	University of Toronto	Toronto, ON, Canada
Gabriel Zada, MD	Stryker Corp, None, Consultant	USC	Los Angeles, CA, USA
Giovanni Danesi, MD	Nothing to disclose	Ospedali Riuniti	Bergamo, Italy
Gurston Nyquist, MD	Nothing to disclose	Thomas Jefferson University Hospital	Philadelphia, PA, USA

Meeting Faculty & Disclosures

NAME	DISCLOSURES	INSTITUTION	CITY/COUNTRY
Harry Van Loveren, MD	Nothing to disclose	University of South Florida	Tampa, FL, USA
Harvey Tucker, MD	Nothing to disclose	Metrohealth Medical Center	Cleveland, OH, USA
Hilda Stambuk, MD	Nothing to disclose	Memorial Sloan-Kettering Cancer Center	New York, NY, USA
Ian Witterick MD	Merck Canada, Honorarium, Consultant Proteocyte Diagnostics, Stock, Advisory Board	University of Toronto	Toronto, ON, Canada
Ivan El-Sayed, MD	Stryker Corporation, Honorarium, Course Administrator and Lecturer	USCF	San Francisco, CA, USA
Ivo Janecka, MD, MBA, PhD	Nothing to disclose	American Cancer Society – Florida Division	Tampa, FL, USA
Jacques Morcos, MD	Nothing to disclose	University of Miami – Lois Pope Life Center	Miami, FL, USA
James Evans, MD	Stryker, Honorarium, Consultant Mizuho, Royalty, Development of Surgical Instruments	Thomas Jefferson University	Philadelphia, PA, USA
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James Suen, MD	Nothing to disclose	University of AR for Medical Sciences	Little Rock, AR, USA
Jatin Shah, MD	Nothing to disclose	Memorial Sloan-Kettering Cancer Center	New York, NY, USA
Jean Anderson Eloy, MD	Nothing to disclose	Neurological Institute of New Jersey, Rutgers New Jersey Medical School	Newark, NJ, USA
Jimmy Yu-Wai Chan, MD, MS	Nothing to disclose	Queen Mary Hospital , University of Hong Kong	Pok Fu Lam, Hong Kong
John Golfinos, MD	Medtronic, Honorarium, Faculty for course ViewRay, Shareholder, Shareholder	New York University Medical Center	New York, NY, USA
John Lee, MD	Storz, Research Grant, PI Vision Sense, Stock Options, Owner	University of Pennsylvania	Philadelphia, PA, USA
John Leonetti, MD	Nothing to disclose	Loyola University Medical Center	Maywood, IL, USA
John Yoo, MD	Nothing to disclose	London Health Sciences Centre	London, Canada
Johnny Delashaw, MD	Nothing to disclose	UC Irvine Medical Center	Orange, CA, USA
Joseph Zabramski, MD	Nothing to disclose	Barrow Neurological Institute/ BNA	Phoenix, AZ, USA
Juan Fernandez-Miranda, MD	Nothing to disclose	UPMC Presbyterian	Pittsburgh, PA, USA
Jurij R. Bilyk, MD	Nothing to disclose	Wills Eye Hospital	Philadelphia, PA, USA
Ketan Bulsara, MD	Nothing to disclose	Yale University School of Medicine	New Haven, CT, USA
Khaled Aziz, MD	Nothing to disclose	Allegheny General Hospital	Pittsburgh, PA, USA
Kim Pollock, RN, MBA, CPC	Nothing to disclose	Karen Zupko & Associates, Inc.	Chicago, IL, USA
Laligam Sekhar, MD	SPI Surgical, Royalty/Intellectual Property, Shareholder Viket Medical, Intellectual Property, Shareholder	University of Washington/ Harborview Medical Center	Seattle, WA, USA
Laurie A. Loevner, MD	Nothing to disclose	University of Pennsylvania	Philadelphia, PA, USA

Meeting Faculty & Disclosures

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Lawrence Ginsberg, MD	Nothing to disclose	The University of Texas MD Anderson Cancer Center	Houston, TX, USA
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Nicholas B. Levine, MD	Nothing to disclose	The University of Texas MD Anderson Cancer Center	Houston, TX, USA
Ossama Al-Mefty, MD	Nothing to disclose	Brigham and Women's Hospital	Boston, MA, USA
Parthasarathy D. Thirumala, MD	Nothing to disclose	University of Pittsburgh	Pittsburgh, PA, USA
Patrick Gullane, MD	Nothing to disclose	University Health Network/ Toronto General Hospital	Toronto, ON
Patrick Wen, MD	Research Support: Amgen, Astra Zeneca, Boehringer Ingelheim, Eisai, Exelixis, Genentech/roche, Geron, Medimmune, Merck, Novartis, Sanofi-aventis, Vascular biogenics Advisory Board: Merck, Novartis, EMD Serono Speaker: Merck, Genentech/roche, GlaxoSmith Kline	Dana-Farber Cancer Institute	Boston, MA, USA

Meeting Faculty & Disclosures

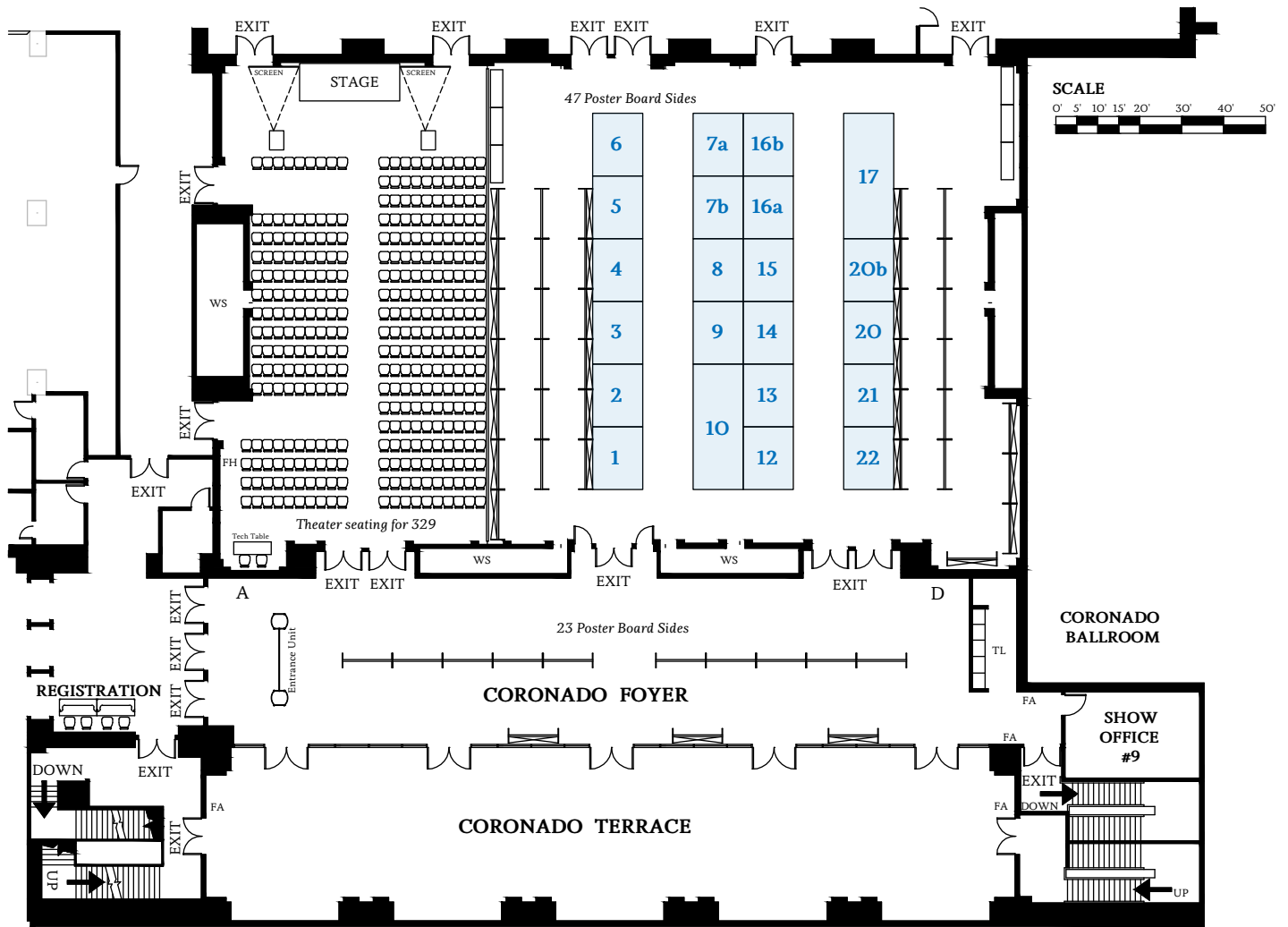
NAME	DISCLOSURES	INSTITUTION	CITY/COUNTRY
Paul Gardner, MD	Integra LifeSciences, Consulting Fee, Consultant	University of Pittsburgh Medical Center	Pittsburgh, PA, USA
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Pete Batra, MD	Nothing to disclose	UT Southwestern Medical Center	Dallas, TX, USA
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Peter Hwang, MD	Medtronic, Consulting Fee, Consultant Interrect, Ownership Interest, Consultant Sinuwave, Honorarium, Consultant Xoran, Consulting Fee, Consultant	Stanford School of Medicine	Palo Alto, CA, USA
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Ralph Gilbert, MD	Nothing to disclose	University Health Network/ Princess Margaret Hospital	Toronto, ON, Canada
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Ricardo Carrau, MD	Stryker Corporation KLZ Corporation Storz Endoscopy Medtronic Corporation Integra InHealth Technologies	Ohio State University	Columbus, OH, USA

Meeting Faculty & Disclosures

NAME	DISCLOSURES	INSTITUTION	CITY/COUNTRY
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Steve Lee, MD, PhD	Nothing to disclose	Loma Linda University	Loma Linda, CA, USA
Steven D. Chang, MD	Nothing to disclose	Stanford University School of Medicine	Stanford, CA, USA
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Hotel Floor Plan

CORONADO BALLROOM C, D & E



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Exhibitor Profiles

3D Medi Vision, Inc.

Booth #14

5F Mercedes-Benz Building, 617 Eonju-ro, Gangnam-gu
Seoul, Korea 135-010
TEL: +82 70 7122 4090 | FAX: +82 2 3443 7548
WEBSITE: www.3dmedivision.com

3D Medi Vision, Inc. is a world leader in 3D visualization systems for microsurgery. The company's systems make it possible to capture, record, live cast, edit and archive microscopic surgery in high-definition 3D for future reference, to show at a conference, or for education in the classroom.

American Surgical Company, LLC

Booth #15

82 Sanderson Avenue, Lynn, MA 01902
TEL: 781-592-7200 | FAX: 781-595-5460
WEBSITE: www.americansurgical.com

American Surgical Company (ASC) is a US based manufacturer of specialty neurosurgical patties and devices, such as the new ArmourSorb™. ASC recognizes the difficulties that are faced in a variety of procedures and works diligently with surgeons and operating room nurses to provide unique products to meet those difficulties.

Apex Medical, Inc.

Booth #9

105 Quaker Lane, Malvern, PA 19355
TEL: 610-240-4905 | FAX: 610-240-4757
WEBSITE: www.apexmed.com

Apex works with leading neurosurgeons to make delicate, safe, sharp microsurgical dissection possible. We agree with one of the first neurosurgeons to use our arachnoid knives that, "everything before this has been micro-tearing." Find out why the leading neurosurgeons in the world are so excited about Apex Arachnoid Knives.

Biomet Microfixation

Booth #8

1520 Tradeport Drive, Jacksonville, FL 32218
TEL: 904-741-4400 | FAX: 904-741-4500
WEBSITE: www.biometmicrofixation.com

Biomet Microfixation is a biomedical company that provides innovative products to the Craniomaxillofacial and Thoracic specialties. For over 30 years, Biomet has been a leader in the design and manufacturing of unique, need-based products worldwide. Biomet's Technology in Neuro and Patient-Matched therapies are enhancing and changing the quality of patient's lives today and in the future.

Cook Medical

Booth #5

750 Daniels Way, Bloomington, IN 47404
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WEBSITE: www.cookmedical.com

Patients need better, safer treatment and doctors need simpler, more effective options. Since 1963, Cook Medical has been working with physicians to create simple, minimally invasive solutions to difficult problems. Today we manufacture and combine medical devices, drugs, cell therapy and biologic grafts to serve more than 41 medical specialties.

DePuy Synthes

Booth #20

1301 Goshen Parkway, West Chester, PA 19380
TEL: 610-719-6500 | FAX: 610-719-6533
WEBSITE: www.depuyssynthes.com

DePuy Synthes Companies, part of the Medical Devices & Diagnostics (MD&D) segment of Johnson & Johnson, offers an unparalleled breadth of products, services, programs and research and development capabilities, that are designed to advance patient care and deliver clinical and economic value to health care systems throughout the world.

KARL STORZ Endoscopy-America, Inc.

Booth #12

2151 E. Grand Avenue, El Segundo, CA 90245
TEL: 800-421-0837
WEBSITE: www.karlstorz.com

KARL STORZ is a leader in endoscopy solutions for a range of specialties including otorhinolaryngology and neurosurgery. We offer products for the latest minimally invasive neurosurgery procedures. And, for over 65 years, KARL STORZ has produced a full range of precision instruments and telescopes of superior quality for state-of-the-art otorhinolaryngology.

KLS Martin

Booth #6

P.O. Box 16369, Jacksonville, FL 32245
TEL: 904-641-7746 | FAX: 904-641-7378
WEBSITE: www.klsmartinnorthamerica.com

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

Kogent Surgical, LLC

Booth #13

754 Goddard Avenue, Chesterfield, MO 63005
TEL: 636-778-3078 | FAX: 636-787-0603
WEBSITE: www.kogentneuro.com

Kogent Surgical designs and distributes a comprehensive line of neurosurgical titanium instruments, purple disposable bipolar forceps in a variety of sizes and orientations, designed with Robert F. Spetzler, MD, and other luminary neurosurgeons. Also available are innovative disposable illuminated suction tubes. Stop by our booth to see more!

Leica Microsystems

Booth #22

1700 Leider Lane, Buffalo Grove, IL 60089
TEL: 847-821-3447 | FAX: 847-405-0164
WEBSITE: www.leicamicrosystems.com

Designed with you in mind, Leica Microsystems brings you the only surgical microscope with TrueVision® Smart 3D inside. With the highest quality 3D HD visualization and recording along with high definition video recording in our top-of-the-line OH family of microscopes, Leica sets the standard in surgical education, easy video editing, and creating the platform for future applications. Come see it for yourself at the Leica booth.

Exhibitor Profiles

Medtronic Surgical Technologies

Booth #16A

6743 Southpoint Drive North, Jacksonville, FL 32216
TEL: 904-296-9600 | FAX: 904-281-2771
WEBSITE: www.medtronicENT.com

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

Mizuho America, Inc.

Booth #2

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

Mizuho America, Inc. is a cerebrovascular focused instrumentation company whose main products include Sugita T2 Aneurysm Clips, 7201B Operating Table, Cranial Stabilization Systems, Micro Instruments, Kelly Endonasal Set, Lawton Neurovascular Bypass Set, Evans Rotatable Set, Day-Bailes Suction Tubes, and Intracranial & Vascular Dopplers. When it's Microsurgery, it's Mizuho.

NICO CORPORATION

Booth #1

250 E. 96th Street, Suite 125, Indianapolis, IN 46240
TEL: 888-632-7071 | FAX: 317-682-0305
WEBSITE: www.niconeuro.com

NICO Corporation is progressing minimally invasive corridor neurosurgery by creating instruments that allow for access through smaller openings and resection of soft tissue abnormalities in the central nervous system.

NJR Medical

Booth #7A

P.O. Box 582, New York, NY 10021
TEL: 440-258-8204 | FAX: 866-412-8790
WEBSITE: www.njrmedical.com

Avoid a sentinel event and NEVER ALLOW NASOTRACHEAL SUCTIONING!! When Nasotracheal Suctioning is contraindicated in your at-risk Transsphenoidal Surgery and Basal Skull Fx. patients, do you have another option? Learn how fast and easy RNs and RTs can use the No-Bite V to introduce a suction catheter orally. FREE Sample "No-Bite V" at booth.

OsteoMed

Booth #21

3885 Arapaho Road, Addison, TX 75001
TEL: 972-677-4600
WEBSITE: www.osteomed.com

OsteoMed is a leading global innovator, developer, manufacturer and marketer of specialty medical devices, surgical implants and powered surgical instruments.

Plural Publishing, Inc.

Booth #3

5521 Ruffin Road, San Diego, CA 92123
TEL: 858-492-1555 | FAX: 858-792-1020
WEBSITE: www.pluralpublishing.com

Plural Publishing produces leading academic, scientific and clinical publications in the fields of audiology and otolaryngology. Enjoy a 20% conference discount and free shipping on your book purchase at our booth.

Stryker

Booth #10

750 Trade Centre Way, Suite 200, Portage, MI 49002
TEL: 269-389-3560 | FAX: 269-585-5981
WEBSITE: www.stryker.com

Stryker is a leading medical technology company and is dedicated to helping healthcare professionals perform their jobs more efficiently while enhancing patient care. The Company offers an array of medical technologies including reconstructive implants, medical and surgical equipment, and neurotechnology and spine products to help people lead more satisfying lives.

Surgical Theater

Booth #17

781 Beta Drive, Mayfield Village, OH 44143
TEL: 216-452-2177 | FAX: 216-916-3806
WEBSITE: www.surgicaltheater.net

Surgical Theater, LLC combines the science of flight simulation with advanced CT/MRI imaging technology to reconstruct dynamic and interactive 3D models with life-like tissue reaction and accurate modeling of surgery tools. The Surgical Rehearsal Platform allows surgeons to rehearse a specific patient's case, performing a real-life "flight simulation" of surgery.

Valorem Surgical

Booth #2OB

3969 W. Belmont Avenue, Suite 9, Chicago, IL 60618
TEL: 312-852-2700 | FAX: 844-725-7117
WEBSITE: www.valoremsurgical.com

Valorem Surgical is an early stage medical device company that manufactures, commercializes, markets and distributes implants for orthopedic, interventional and neurosurgical pathologies.

Valorem Surgical is pleased to participate in the 2014 Annual Meeting of NASBS and to unveil a patient specific PEEK cranial flap, and is expecting FDA clearance by the end of Q1. Please visit us at Booth 2OB for more information.

Visionsense Corp.

Booth #4

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

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

Vycor Medical

Booth #16B

6401 Congress Avenue, Suite 140, Boca Raton, FL 33487
TEL: 561-558-2020 | FAX: 561-620-2545
WEBSITE: www.vycormedical.com

Vycor Medical is dedicated to providing the medical community with innovative neurosurgical solutions, Vycor's leading-edge Brain Access System (VBAS), a suite of 12 clear cylindrical disposable devices used to access tumors within the brain provide a minimally invasive approach with clinical advantages that have been validated in various peer-reviewed articles. Stop by our booth for additional information.

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Schedule-at-a-Glance

AMA PRA Category 1 Credits™ will be provided for this activity.

FRIDAY, FEBRUARY 14, 2014

6:30 am	Breakfast/Registration	<i>Coronado Foyer & Terrace</i>
7:00 am – 8:00 am	BREAKFAST SEMINARS	
BS1:	Management of Vascular Complications in Endonasal Surgery	<i>America's Cup AB</i>
BS2:	Role of Endoscopy in the Posterior Fossa Cranial Base Surgery	<i>America's Cup CD</i>
BS3:	Skull Base in the Pediatric Population	<i>Regatta BC</i>
BS4:	Anterior Skull Base Resection	<i>Coronado AB</i>
8:05 am – 9:00 am	CONCURRENT SESSIONS	
CS1:	Multidisciplinary Management of Chordomas and Chondrosarcomas	<i>America's Cup AB</i>
CS2:	Management of Giant/Invasive Pituitary Tumors	<i>America's Cup CD</i>
CS3:	Esthesioneuroblastoma	<i>Coronado AB</i>
CS4:	Management of Post-Operative CSF Leaks	<i>Regatta BC</i>
9:00 am – 9:30 am	Break with Exhibitors	<i>Coronado CDE</i>
9:30 am – 12:00 pm	PLENARY SESSION I	<i>Coronado AB</i>
9:30 am:	3-D Anatomy – Juan Carlos Fernandez-Miranda, MD	
10:15 am:	Honored Guest Lecturer – Ivo P. Janecka, MD, MBA, PhD	
10:45 am:	Symposium: Educating Future Skull Base Surgeons – Harry Van Loveren, MD, Carl Snyderman, MD, MBA & Ian Witterick, MD	
11:30 am:	Honored Guest Lecturer – Ossama Al-Mefty, MD	
12:00 pm – 1:00 pm	NASBS Annual Business Meeting – Lunch for All Members (Lunch in Exhibit Hall for Non-Members)	<i>Harbor AB</i>
1:00 pm – 2:00 pm	CONCURRENT SESSIONS	
CS5:	Management of Idiopathic CSF Leaks	<i>America's Cup AB</i>
CS6:	Nasopharyngeal Malignancies	<i>America's Cup CD</i>
CS7:	Reduction of Complications in Endoscopic Cranial Base Surgery	<i>Coronado AB</i>
CS8:	Craniopharyngioma	<i>Regatta BC</i>
2:05 pm – 3:30 pm	PROFFERED PAPERS	
	Proffered Paper I: Endonasal Approaches	<i>Coronado AB</i>
	Proffered Paper II: Vestibular Schwannomas	<i>America's Cup AB</i>
	Proffered Paper III: Innovative Technology	<i>America's Cup CD</i>
	Proffered Paper IV: Pituitary Tumors	<i>Regatta BC</i>
3:30 pm – 4:00 pm	Break with Exhibitors	<i>Coronado CDE</i>
4:00 pm – 5:30 pm	PROFFERED PAPERS	
	Proffered Paper V: Endonasal Approaches 2	<i>Coronado AB</i>
	Proffered Paper VI: Surgical Approaches	<i>America's Cup AB</i>
	Proffered Paper VII: General	<i>America's Cup CD</i>
	Proffered Paper VIII: Chordomas, Chondrosarcomas, and Vascular Lesions	<i>Regatta BC</i>
5:30 pm – 7:00 pm	Reception in Exhibit Hall	<i>Coronado CDE</i>

SATURDAY, FEBRUARY 15, 2014

6:30 am	Breakfast/Registration	<i>Coronado Foyer & Terrace</i>
7:00 am – 8:00 am	BREAKFAST SEMINARS	
BS5:	Approaches to the Infratemporal Fossa	<i>Coronado AB</i>
BS6:	Reconstruction of Large Craniofacial Defects	<i>America's Cup AB</i>
BS7:	Innovations in Endovascular Neurosurgery	<i>America's Cup CD</i>
BS8:	Skull Base Resection For Cutaneous Malignancies	<i>Regatta BC</i>
8:05 am – 9:00 am	CONCURRENT SESSIONS	
CS9:	Management of Atypical/Aggressive Meningiomas	<i>Coronado AB</i>
CS10:	Management of Complex Cranial Base Aneurysms	<i>America's Cup AB</i>
CS11:	Sinonasal Carcinomas	<i>America's Cup CD</i>
CS12:	Best Outcome for Glomus Tumors	<i>Regatta BC</i>
9:00 am – 9:30 am	Break with Exhibitors	<i>Coronado CDE</i>

Schedule-at-a-Glance

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

Coronado AB

9:30 am: **Honored Guest Lecturer** – Piero Nicolai, MD

10:00 am: **Keynote Lecturer** – David Dravecky, former Major league baseball player (San Francisco Giants), Founder of Endurance with Jan and Dave Dravecky

10:45 am: **Awards & Recognition Ceremony**

- **BEST PAPER BY A MEDICAL STUDENT:** “Comparison of Open and Transnasal Endoscopic Approaches to the Skull Base in the Endoscopic Skull Base Era”
Justin Miller, BSPH, The University of North Carolina at Chapel Hill, Department of Otolaryngology/Head and Neck Surgery, Chapel Hill, NC
- **BEST RESIDENT CLINICAL PAPER:** “Surgical Management of Nonmelanoma Skin Cancers Involving the Skull Base”
Shaan M. Raza, MD, UT MD Anderson Cancer Center, Department of Neurosurgery, Houston, TX
- **BEST RESIDENT BASIC SCIENCE:** “Comparative Proteomic Profiling Using Two-Dimensional Gel Electrophoresis and Identification Via LC-MS/MS Reveals Protein Biomarkers That Distinguish Aggressive From Non-Aggressive Phenotypes of WHO Grade I Meningioma”
Joshua Osburn, MD, University of Washington, Department of Neurological Surgery, Seattle, WA

10:55 am: **The Rhoton Project: The NASBS Skull Base Collection** – Sandeep Samant, MS, FRCS & Jeff Sorenson, MD

11:05 am: **Introduction of Guest of Honors**

11:15 am: **Presidential Address** – Ehab Hanna, MD, FACS

12:00 pm – 1:00 pm **Lunch on Own**

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

CS13: Best Outcome for Olfactory Groove Meningioma

CS14: Non Functional Pituitary Tumors

CS15: Perineural Spread

CS16: Trigeminal Schwannoma

Coronado AB
America's Cup AB
America's Cup CD
Regatta BC

2:05 pm – 3:30 pm **PROFFERED PAPERS**

Proffered Paper IX: Endonasal Approaches 3

Proffered Paper X: Temporal Bone

Proffered Paper XI: Meningiomas I

Proffered Paper XII: Sinonasal Tumors

America's Cup AB
America's Cup CD
Coronado AB
Regatta BC

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

Coronado CDE

4:00 pm – 5:30 pm **PROFFERED PAPERS**

Proffered Paper XIII: Reconstruction

Proffered Paper XIV: Head and Neck Cancer

Proffered Paper XV: Meningiomas 2/Basic Science

Proffered Paper XVI: Sellar/Suprasellar/Cavernous Sinus Microvascular Decompression

America's Cup AB
America's Cup CD
Coronado AB
Regatta BC

6:30 pm – 9:30 pm **President's Reception (Business attire)**

Grand Hall D

SUNDAY, FEBRUARY 16, 2014

6:30 am **Breakfast/Registration**

Coronado Foyer & Terrace

7:00 am – 8:00 am **BREAKFAST SEMINARS**

BS9: Orbital Tumors

BS10: Rehabilitation of Cranial Nerves

BS11: Pearls and Pitfalls in Cranial Base Imaging

BS12: Technical Nuances of Nasopharyngectomy

Coronado AB
America's Cup AB
America's Cup CD
Regatta BC

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

CS17: Factors Influencing Management of Vestibular Schwannomas

CS18: Quality of Life Issues

CS19: Fibrous Lesions

CS20: Functional Pituitary Tumors

Coronado AB
America's Cup AB
America's Cup CD
Regatta BC

9:05 am – 10:00 am **CONCURRENT SESSIONS**

CS21: Adenoid Cystic Carcinoma

CS22: Management of Vascular Complications

CS23: Temporal Bone Malignancies

CS24: Emerging Technologies

America's Cup AB
Coronado AB
America's Cup CD
Regatta BC

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

Coronado CDE

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

Coronado AB

10:30 am: **Skull Base Jeopardy**

11:15 am: **Interactive Tumor Board**

12:15 pm: **Coding/Billing**

12:45 pm **Meeting Adjourned**

Pre-meeting Workshop

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Division of Education

PRE-MEETING PRACTICAL COURSES

Open vs. Endoscopic: A Comparison of Skull Base Approaches

February 12-13, 2014, San Diego, CA

COURSE DIRECTORS: Carl Snyderman, MD, MBA, University of Pittsburgh Medical Center, Pittsburgh, PA, USA, & James Evans, MD, Thomas Jefferson University, Philadelphia, PA, USA

Shuttle will be available from the Grand Manchester Hyatt to the Center for the Future of Surgery at UC San Diego and back. Shuttle schedule is listed below. Please note that the shuttle will leave promptly at the scheduled time.

Wednesday, February 12, 2014

Shuttle Pick Up Time at the Manchester Hyatt: 6:30 am

Location: West Lobby Entrance. The shuttle will be on Kettner Blvd.

Return Shuttle Time: 6:00 pm

Thursday, February 13, 2014

Shuttle Pick Up Time at the Manchester Hyatt: 7:00 am

Location: West Lobby Entrance. The shuttle will be on Kettner Blvd.

Return Shuttle Time: 6:00 pm

Address for the Center for the Future of Surgery at UC San Diego is 9500 Gilman Drive, La Jolla, CA 920963.

The Center for the Future of Surgery is located on the School of Medicine campus in the Medical Education and Telemedicine Building (MET) in the basement level. The MET Building has orange umbrellas outside.

Pre-Meeting Course Objectives:

- Apply various endoscopic techniques (EEA - Endoscopic Endonasal Approach) for pituitary and skull base surgery
- Demonstrate knowledge of the advanced endoscopic anatomy
- Explain various techniques of surgery and how to avoid complications to the anterior, middle and posterior skull base
- Describe the indications, contraindications, advantages, and disadvantages of each approach

DAY ONE: Wednesday, February 12, 2014

7:00 am – 7:45 am **Registration/Breakfast**

7:45 am – 8:00 am **Course Overview**

8:00 am – 9:00 am **PROSECTION: Suprasellar Pterional Approach** – Joseph Zabranski, MD

9:00 am – 10:00 am **PROSECTION: Suprasellar Endoscopic Endonasal Approach** – James Evans, MD & Marc Rosen, MD

10:00 am – 12:30 pm **DISSECTION TRACK** *or* **LECTURE TRACK**

10:00 am: Break

10:15 am: Equipment/Set-Up – Frank Hsu, MD, PhD

10:45 am: Pituitary Tumors – Philip Theodosopoulos, MD

11:15 am: Craniopharyngiomas – Charles Teo, MBBS

11:45 am: Meningiomas – Johnny Delashaw, MD

12:15 pm: Discussion

12:30 pm – 1:30 pm **Lunch & Case Discussions**

1:30 pm – 2:30 pm **PROSECTION: Anterior Cranial Base: Subfrontal Approach** – Frank Hsu, MD, PhD & Steve Lee, MD, PhD

2:30 pm – 3:30 pm **PROSECTION: Anterior Cranial Base: Endoscopic Endonasal Approach** – Philip Theodosopoulos, MD & Ivan El-Sayed, MD

3:30 pm – 6:00 pm **DISSECTION TRACK** *or* **LECTURE TRACK**

3:30 pm: Break

3:45 pm: Optic Nerve/Orbit – Lee Zimmer, MD, PhD

4:15 pm: Malignancy of the Anterior Skull Base – Sandeep Samant, MS, FRCS

4:45 pm: Encephalocele – Marc Rosen, MD

5:15 pm: Reconstruction of the Anterior Cranial Base – Richard Harvey, MBBS

5:45 pm: Discussion

6:00 pm **Adjournment**

Pre-meeting Workshop

DAY TWO: Thursday, February 13, 2014

7:30 am – 8:00 am **Breakfast**

8:00 am – 9:00 am **PROSECTION: Transclival Endoscopic Endonasal Approach** – Charles Teo, MBBS & Richard Harvey, MBBS

9:00 am – 10:00 am **PROSECTION: Transclival Far Lateral** – Johnny Delashaw, MD

10:00 am – 12:30 pm **DISSECTION TRACK** *or* **LECTURE TRACK**

10:00 am: Break

10:15 am: Chordomas and Chondrosarcomas – *Paul Gardner, MD*

10:45 am: Angiofibromas – *Carl Snyderman, MD, MBA*

11:15 am: Nasopharyngeal Cancer – *Lee Zimmer, MD, PhD*

11:45 am: Carotid Injury – *Joseph Zabramski, MD*

12:15 pm: Discussion

12:30 pm – 1:30 pm **Lunch & Case Discussions**

1:30 pm – 2:30 pm **PROSECTION: Middle Fossa Endoscopic Endonasal Approach** – Carl Snyderman, MD, MBA & Paul Gardner, MD

2:30 pm – 3:30 pm **PROSECTION: Infratemporal** – Sandeep Samant, MS, FRCS & L. Madison Michael II, MD

3:30 pm – 6:00 pm **DISSECTION TRACK** *or* **LECTURE TRACK**

3:30 pm: Break

3:45 pm: Petrous Apex - Transtemporal Approaches – *Rick Friedman, MD, PhD*

4:15 pm: Petrous Apex - Endoscopic – *Richard Harvey, MBBS*

4:45 pm: Odontoid and Craniovertebral Junction – *James Evans, MD*

5:15 pm: Reconstruction of Clival Defects – *Ivan El-Sayed, MD*

5:45 pm: Discussion

6:00 pm **Adjournment**



FRIDAY, FEBRUARY 14, 2014

7:00 am – 8:00 am BREAKFAST SEMINARS

BS1: Management of Vascular Complications in Endonasal Surgery

America's Cup AB

MODERATOR: Peter Nakaji, MD – *Endoscopic Surgery for Anterior Skull Base Resection: Surgical Technique and Complications*

SPEAKERS:

- Anand Germanwala, MD – *Endoscopic Endonasal Clipping of Intracranial Aneurysms*
- Carl Snyderman, MD, MBA – *Intraoperative Management of Carotid Injury During Endoscopic Endonasal Surgery*

BS2: Role of Endoscopy in the Posterior Fossa Cranial Base Surgery

America's Cup CD

MODERATOR: Melvin Field, MD – *Expanding Role of Endoscopy in Posterior Fossa Surgery*

SPEAKERS:

- Daniel Pieper, MD – *Endoscopy of Cerebellopontine Angle Tumors*
- Charlie Teo, MD – *Endoscopic Approaches to the Petrous Apex*
- John Y.K. Lee, MD – *Fully Endoscopic MVD for Neurovascular Compression Syndromes*

BS3: Skull Base in the Pediatric Population

Regatta BC

MODERATOR: Erin McKean, MD

SPEAKERS:

- Adam Zanation, MD – *Pediatric Skull Base Anatomic Development: Implications for Endoscopic Skull Base Surgery*
- Elizabeth Tyler Kabara, MD, PhD – *The First 150 Pediatric Endoscopic Endonasal Approaches: Lessons Learned*

BS4: Anterior Skull Base Resection

Coronado AB

MODERATOR: Daniel Nuss, MD – *The Open Craniofacial Resection Techniques || Prevention of Complications in Anterior Craniofacial Resection*

SPEAKERS:

- Piero Nicolai, MD – *Endoscopic Surgery for Anterior Skull Base Resection and Surgical Technique and Complications*
- Vikram Prabhu, MD – *Surgical Approaches to the Orbital Apex*

8:05 am – 9:00 am CONCURRENT SESSIONS

CS1: Multidisciplinary Management of Chordomas and Chondrosarcomas

America's Cup AB

MODERATOR: Chandra Sen, MD

SPEAKERS:

- Lalgam Sekhar, MD – *The Importance of Complete Resection, and the Choice of Approach in Chordomas*
- Daniel Prevedello, MD – *The Role and Limits of Endoscopic Endonasal Approaches in the Surgical Management of Chordomas and Chondrosarcomas*
- Mark McDonald, MD – *Proton Therapy and Re-Irradiation*
- Deric Park, MD – *Molecular Aspects and Medical Therapy*

CS2: Management of Giant/Invasive Pituitary Tumors

America's Cup CD

MODERATOR: Marvin Bergsneider, MD

SPEAKERS:

- Edward Laws, MD – *The Edge of the Envelope in the Transnasal Endoscopic Management of Giant/Invasive Tumors*
- Daniel Kelly, MD – *The Importance of a Multidisciplinary Approach for Giant/Invasive Pituitary Adenomas*
- Wenyin Shi, MD – *Stereostatic Radiosurgery for Invasive Pituitary Adenomas: Risk versus Benefit*
- Stephen Sullivan, MD – *Surgical Approaches in the Management of Giant Pituitary Tumors*
- Marvin Bergsneider, MD – *Presentation of Difficult Cases for Panel to Comment On*

CS3: Esthesioneuroblastoma

Coronado AB

MODERATOR: Dennis Kraus, MD – *Introduction and Case Presentation*

SPEAKERS:

- Franco DeMonte, MD – *The Surgical Management of Esthesioneuroblastoma*
- Roy Casiano, MD – *The Reconstruction with Free Grafts*
- David Rosenthal, MD – *Radiation Techniques and Considerations*
- Diana Bell, MD – *Morphological Heterogeneity, Grading and Practical Approach to Diagnosis*

CS4: Management of Post-Operative CSF Leaks

Regatta BC

MODERATOR: James Evans, MD

SPEAKERS:

- Ian Witterick, MD – *Management of CSF Leaks Post-ESS*
- Bradley Otto, MD – *Endoscopic Endonasal Management of Postoperative CSF Leaks at The Ohio State University*
- Peter Hwang, MD – *Skull Base Reconstruction After Endoscopic Endonasal Skull Base Surgery: An Evidence-Based Approach*
- Moises Arriaga, MD – *Hydroxyapatite Cranioplasty in Translabyrinthine Acoustic Neuroma Surgery*

Scientific Program

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

Coronado CDE

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

Coronado AB

9:30 am: **3-D Anatomy** – Juan Carlos Fernandez-Miranda, MD

10:15 am: **Honored Guest Lecturer** – Ivo P. Janecka, MD, MBA, PhD

10:45 am: **Symposium: Educating Future Skull Base Surgeons**

Neurosurgery – Harry Van Loveren, MD

Otolaryngology (Open/Endo) – Carl Snyderman, MD, MBA

Simulation – Ian Witterick, MD

11:30 am: **Honored Guest Lecturer** – Ossama Al-Mefty, MD

12:00 pm – 1:00 pm **NASBS Annual Business Meeting** – Lunch for All Members
(Lunch in Exhibit Hall for Non-Members)

Harbor AB

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

CS5: Management of Idiopathic CSF Leaks

America's Cup AB

MODERATOR: Amir Dehdashti, MD – Introduction

SPEAKERS:

- Felipe Santos, MD – Histopathology of Spontaneous CSF Leaks of the Temporal Bone
- Reza Forghani, MD – Imaging Evaluation of CSF Leaks
- Pete Batra, MD – Endoscopic Transpterygoid Approach for Lateral Sphenoid CSF Leaks
- Manish Aghi, MD – Management of Anterior Skull Base Encephaloceles

CS6: Nasopharyngeal Malignancies

America's Cup CD

MODERATOR: Peter Costantino, MD

SPEAKERS:

- Jimmy Yu Wai Chan, MD – Surgical Outcome of Nasopharyngectomy for Recurrent NPC
- Annie Chan, MD – Radiation Therapy for Nasopharyngeal Carcinoma: Is Advanced Technology All That Matters?
- Peter Hwang, MD – Endoscopic Endonasal Nasopharyngectomy: Technique, Outcomes, and Limitations
- Merrill Kies, MD – Rationale for Induction Chemotherapy

CS7: Reduction of Complications in Endoscopic Cranial Base Surgery (Pre-op planning, Intra-op, Post-Op)

Coronado AB

MODERATOR: Christopher Rassekh, MD – Historical Aspects of Cranial Base Surgery Relevant to Complications of Endoscopic Approaches

SPEAKERS:

- Richard Harvey, MBBS – Endoscopic Resection of Chordoma: How to Minimize Complications
- Marc Rosen, MD – Prevention of Complications in Endoscopic Management of Esthesioneuroblastoma
- James Liu, MD – Avoiding Complications in Endoscopic Craniopharyngioma Surgery
- Eric Sauvageau, MD – Adjunctive Roles of Endovascular Therapy for Complication Prevention and Management in Management of Vascular Lesions

CS8: Craniopharyngioma

Regatta BC

MODERATOR: Fred Gentili, MD

SPEAKERS:

- Theodore Schwartz, MD – Outcomes of endoscopic Resection of Craniopharyngiomas
- Wenying Shi, MD – Radiation Treatment for Craniopharyngioma
- Charlie Teo, MD – Extended Endonasal Resection of Craniopharyngiomas; A Novel Approach with Novel Complications
- Elizabeth Tyler-Kabara, MD – Current Standard of Care in the Management of Pediatric Craniopharyngiomas

2:00 pm – 3:30 pm **PROFFERED PAPERS**

PROFFERED PAPER I: Endonasal Approaches 1 (Oral presentations are 8 minutes in length and Q&A sessions are 6 minutes)

Coronado AB

MODERATORS: C. Arturo Solares, MD & Gabriel Zada, MD

OO1: A COMPARISON OF POST-OPERATIVE MRI SIGNAL CHANGES BETWEEN ENDOSCOPIC ENDONASAL APPROACHES AND OPEN APPROACHES FOR OLFACTORY GROOVE MENINGIOMAS: A MATCH PAIRED ANALYSIS FROM TWO INSTITUTIONS –

John R de Almeida, MD, MSc, FRCSC, Paul Gardner, MD, FACS (presenter), Felipe Carvalho, MD, Francisco Vaz Guillmaras Filho, MD, Maria Koutourousiou, MD, Shirley Y Su, MD, Rasmus Kiehl, MD, Allan D Vescan, MD, FRCSC, Ian J Witterick, MD, MSc, FRCSC, Eric Wang, MD, FACS, Gelareh Zadeh, MD, FRCSC, Juan C Fernandez Miranda, MD, Fred Gentili, MD, FRCSC, Carl H Snyderman, MD, MBA, FACS, University of Toronto, University of Pittsburgh

002: DEVELOPMENT OF A PHYSICAL SIMULATOR MODEL FOR DEVELOPING AND EVALUATING ENDOSCOPIC ENDONASAL SURGICAL SKILLS – Ali M Elhadi, MD (presenter), Yashar S Kalani, MD, PhD, Kaith K Almeyty, MD, Samuel Kalb, MD, Peter Nakaji, MD, Kristina Chapple, PhD, Mark C Preul, MD, Andrew S Little, MD, Barrow Neurological Institute / St. Joseph's Hospital

003: ENDOSCOPIC ENDONASAL TRANSCAVERNOUS POSTERIOR CLINOIDECTOMY WITH INTERDURAL PITUITARY TRANSPOSITION. TECHNICAL NOTE AND CLINICAL OUTCOMES – Juan C Fernandez-miranda, MD (presenter), Paul Gardner, MD, Carl Snyderman, MD, MBA, University of Pittsburgh Medical Center

Question & Answers

004: PREOPERATIVE CHRONIC OR ACUTE PURULENT SINUSITIS IS NOT ASSOCIATED WITH THE DEVELOPMENT OF POST OPERATIVE MENINGITIS IN ENDONASAL SKULL BASE SURGERY – Chester F Griffiths, MD (presenter), Garni Barkhoudarian, MD, Kian Karimi, MD, Ricardo Carrau, MD, Amin Kassam, MD, Sam Yost, PhD, Dorna Pourang, BS, Daniel F Kelly, MD, Brain Tumor Center & Pituitary Disorders Program, John Wayne Cancer Institute at Saint Johns Health Center, Santa Monica, California

005: PONTINE ENCEPHALOCELE AND ABNORMALITIES OF THE POSTERIOR FOSSA FOLLOWING TRANSLIVAL ENDOSCOPIC ENDONASAL SURGERY – Maria Koutourousiou, MD (presenter), Francisco Vaz Guimaraes Filho, MD, Juan C Fernandez-Miranda, MD, Eric W Wang, MD, Carl H Snyderman, MD, MBA, William E Rothfus, MD, Paul A Gardner, MD, Center for Cranial Base Surgery, University of Pittsburgh Medical Center

006: SINONASAL QUALITY OF LIFE OUTCOMES AFTER MINIMALLY INVASIVE RESECTION OF SINONASAL AND SKULL BASE TUMORS – Pete S Batra, MD, FACS (presenter), Brian Harrow, MSIII, University of Texas Southwestern Medical Center

Question & Answers

007: ENDOSCOPIC-ASSISTED MICROVASCULAR DECOMPRESSION OF THE POSTERIOR FOSSA: EARLY EXPERIENCE IN A LARGE REFERRAL CENTER – Francisco Vaz-Guimaraes Filho, MD (presenter), Robert A Miller, MD, Juan C Fernandez-Miranda, MD, Paul A Gardner, MD, University of Pittsburgh Medical Center

008: LEARNING CURVE IN PROGRESSION FROM MICROSCOPIC TO ENDOSCOPIC TECHNIQUE IN TRANSPHENOIDAL SURGERY FOR PITUITARY ADENOMAS – A SURGICAL AUDIT – Ribhav Pasricha (presenter), Ashish Suri, MCH, Bhawani S Sharma, MCH, Rajinder K Laythalling, MCH, Amandeep Kumar, All India Institute of Medical Sciences, New Delhi, India

009: OLFATORY FUNCTION FOLLOWING BILATERAL MUCOSAL PRESERVATION NASOSEPTAL RESCUE FLAP TECHNIQUE IN ENDOSCOPIC SKULL BASE SURGERY: PRELIMINARY DATA – Chester Griffiths, MD (presenter), Aaron Cutler, MD, Huy Duong, MD, Kian Karimi, MD, Garni Barkhoudarian, MD, Olivia Doyle, PAC, Daniel F Kelly, MD, Brain Tumor Center & Pituitary Disorders Program, John Wayne Cancer Institute at Saint Johns Health Center, Santa Monica, California

Question & Answers

PROFFERED PAPER II: Vestibular Schwannomas (Oral presentations are 8 minutes in length and Q&A sessions are 6 minutes) *America's Cup AB*
MODERATORS: Roberto A. Cueva, MD & Marc Schwartz, MD

010: FACIAL NERVE PRESERVATION SURGERY FOR KOOS STAGE 3 AND 4 VESTIBULAR SCHWANNOMAS – Amjad N Anaizi, MD (presenter), Eric Gantwerker, MD, Myles Pensak, MD, Philip V Theodosopoulos, MD, Georgetown University Hospital, University of Cincinnati, University of California, San Francisco

011: HEADACHE DISABILITY FOLLOWING OBSERVATION, STEREOTACTIC RADIOSURGERY, AND MICROSURGERY FOR SMALL-TO-MEDIUM SIZED VESTIBULAR SCHWANNOMA – Matthew L Carlson, MD (presenter), Colin L Driscoll, MD, Brian A Neff, MD, Nicole M Tombers, Molly J Sullan, Christine M Lohse, MS, Bruce E Pollock, MD, Michael J Link, MD, Mayo Clinic, Rochester, MN

012: PREDICTORS OF CEREBROSPINAL FLUID LEAK AFTER VESTIBULAR SCHWANNOMA SURGERY – William R Copeland, MD (presenter), Grant W Mallory, MD, Brian A Neff, MD, Colin L Driscoll, MD, Michael J Link, MD, Departments of Neurologic Surgery and Otorhinolaryngology, Mayo Clinic

Question & Answers

013: A COMPARISON OF MANAGEMENT STRATEGIES FOR CEREBROSPINAL FLUID LEAKS FOLLOWING VESTIBULAR SCHWANNOMA REMOVAL – Grant W Mallory, MD (presenter), William R Copeland, MD, Brian Neff, MD, Colin L Driscoll, MD, Michael Link, MD, Mayo Clinic Rochester

014: EXPLORING THERAPEUTIC TARGETS IN SCHWANNOMA THROUGH INTEGRATIVE ANALYSIS – Sameer Agnihotri, PhD, Kelly E Burrell, MSc, Shahrzad Jalali, PhD, Nesrin Sabha, BSc, Boris Krischek, MD, PhD, Kenneth D Aldape, MD, PhD, Gelareh Zadeh, MD, PhD (presenter), Arthur & Sonia Labatt Brain Tumour Research Centre, The Hospital for Sick Children, Toronto, Canada

015: POST - OPERATIVE FACIAL NERVE PRESERVATION AFTER VESTIBULAR SCHWANNOMA (VS) RESECTION: A COMPARATIVE META-ANALYSIS OF ENDOSCOPIC VS. OPEN RESECTION SURGERY – Abdullah Alobaid, MD, FRCSC (presenter), Mohammad Aref, MD, Michael Bennardo, MSc, Forough Farrokhyar, BSc, MPhil, PhD, Kesh Reddy, MD, FRCSC, FACS, McMaster University

Question & Answers

016: PURELY ENDOSCOPIC MANAGEMENT OF VESTIBULAR SCHWANNOMAS – Pradeep Setty, DO (presenter), Kenneth P D'Andrea, DO, Emily Stucken, MD, Daniel R Pieper, MD, St. John Providence Health System, Michigan State University; Michigan Ear Institute; Oakland University, William Beaumont School of Medicine

017: VERY LOW DOSE STEREOTACTIC RADIOSURGERY FOR VESTIBULAR SCHWANNOMA – Rohan R Lall, MD, Allan Nanney III, MD (presenter), Rishi R Lall, MD, Andrew Schumacher, BA, Addason McCaslin, BA, John Kalapurakal, MD, James P Chandler, MD, Northwestern University

018: DOES RADIATION DOSE TO THE LABYRINTH PREDICT CHANGE IN BALANCE FUNCTION AND PATIENT PERCEIVED DIZZINESS FOLLOWING STEREOTACTIC RADIOTHERAPY FOR VESTIBULAR SCHWANNOMA? – Matthew L Carlson, MD, Mark J Stavas, MD (presenter), Albert Attia, MD, Alejandro Rivas, MD, Gary P Jacobson, PhD, George B Wana, MD, Department of Otolaryngology-Head and Neck Surgery, Department of Neurologic Surgery, Mayo Clinic School of Medicine, Rochester, MN USA 55905

Question & Answers

PROFFERED PAPER III: Innovative Technology (Oral presentations are 8 minutes in length and Q&A sessions are 6 minutes) *America's Cup CD*
MODERATORS: James Liu, MD & Jean Anderson Eloy, MD

019: COMPUTER MODELING OF SKULL BASE ENDOSCOPIC INSTRUMENT MOTION AND SURGICAL PATHWAY ANALYSIS – R. Alex Harbison, MD (presenter), Randall Bly, MD, Jed White, BS, Randy Ching, PhD, Kris S Moe, MD, University of Washington

020: THREE-DIMENSION IMAGES IN ENDOSCOPIC ENDONASAL ANATOMICAL DISSECTION: AN INNOVATIVE METHOD – Nicolas Gil Guevara, MD, Daniel M Prevedello, MD, Leo F Ditzel Filho, MD, Cristian Naudy Martinez, MD (presenter), Matteo Zoli, MD, Bradley A Otto, MD, Ricardo L Carrau, MD, Department of Neurological Surgery, The Ohio State University, Columbus, OH, United States

021: ENDOSCOPIC ENDONASAL CRANIAL BASE SURGERY SIMULATION USING AN ARTIFICIAL CRANIAL BASE MODEL CREATED BY SELECTIVE LASER SINTERING – Kenichi Oyama, MD (presenter), Leo F.S. Ditzel Filho, MD, Jun Muto, MD, Daniel G Souza, MD, Mateo Zoli, MD, Cristian A. Naudy, MD, Facundo Van, MD, Edward Kerr, MD, Ali Jamshidi, MD, Bradley A. Otto, MD, Ricardo L. Carrau, MD, Daniel M. Prevedello, MD, Department of Neurological Surgery, Department of Otolaryngology - Head & Neck Surgery, The Ohio State University Wexner Medical Center

Question & Answers

022: TOWARDS ENDONASAL ROBOTIC SKULL BASE SURGERY – Michael E Kupferman, MD (presenter), Ehab Y Hanna, MD, The University of Texas MD Anderson Cancer Center

023: NEUROSURGERY SKILLS TRAINING - PAST, PRESENT AND FUTURE: HANDS-ON SKILLS TRAINING MODULES TO VIRTUAL REALITY SIMULATION – Ashish Suri, MD (presenter), Payal Jotwani, BS, Britty Baby, BSMS, Vinkle K Srivastav, BS, Tara S Roy, MD PhD, Sanjiv Lalwani, MD, Martin Bettag, MD, PhD, Christoph Busert, MD, Marcus Mehltz, MD, Subhashis Banerjee, PhD, Sanjiva Prasad, PhD, Prem Kalra, PhD, Subodh Kumar, PhD, Kolin Paul, PhD, Bhawani S Sharma, MD, All India Institute of Medical Sciences, New Delhi, India; Barmherzige Bruder Hospital, Trier, Germany; Indian Institute of Technology Delhi, New Delhi, India;

024: FLEXIBLE ENDOSCOPE INCREASES SURGICAL FREEDOM WHEN COMPARED TO A RIGID ENDOSCOPE IN ENDOSCOPIC ENDONASAL APPROACHES TO THE SKULL BASE – Ali M Elhadi, MD (presenter), Richard Williamson, MD, Claudio Cavallo, Mark C Preul, MD, Peter Nakaji, MD, Andrew S Little, MD, Barrow Neurological Institute / St. Joseph's Hospital

Question & Answers

025: THE FEASIBILITY AND UTILITY OF INTRAOPERATIVE COMPUTER TOPOGRAPHY IN SKULL-BASE SURGERY – Kourosh Tavanaiepour, DO (presenter), Iman Naseri, MD, Phillip Pirgousis, MD, Daryoush Tavanaiepour, MD, University of Florida College of Medicine, Jacksonville and Saint Barnabas Medical Center, New Jersey

026: DETECTION OF SKULL BASE CSF LEAKS USING HIGH RESOLUTION CT-MRI FUSION IMAGING: A NEW ALGORITHM IN MANAGEMENT AND TREATMENT – Raj K Shrivastava, MD (presenter), Satish Govindaraj, MD, Abib Agbetoba, MD, Mount Sinai Medical center, NYC

Question & Answers

PROFFERED PAPER IV: Pituitary Tumors (Oral presentations are 8 minutes in length and Q&A sessions are 6 minutes) *Regatta BC*
MODERATORS: Nicholas Levine, MD & Lee Zimmer, MD, PhD

027: ENDOSCOPIC TRANSSPHENOIDAL SURGERY: INSTITUTIONAL EXPERIENCE IN CUSHING'S DISEASE – Oscar Feo, MD, Jaime Becerra, MD (presenter), Hospital Universitario San Ignacio – Pontificia Universidad Javeriana

028: A NEW CLINICAL PROGNOSTIC SCORING SYSTEM FOR PITUITARY ADENOMA – Wang Jia, MD (presenter), Guijun Jia, MD, BEIJING TIAN TAN HOSPITAL, CAPITAL MEDICAL UNIVERSITY

Question & Answers

029: EXPERIMENTAL MODEL FOR TRAINING OF ENDOSCOPIC TRANSSPHENOIDAL PITUITARY ADENOMA RESECTION – J.-y. Fournier (1), MD (presenter), A.j. Tasman (2), PhD, MD, R. Schmid (3), dipl, ing, R. Schindel (3), dipl, ing, D.c. Engel (1), PhD, MD, MBA, Neurosurgery (1), ENT (2), Cantonal Hospital, St. Gall. Techn. Fed. School, Zurich (3)

030: IMAGING OF NONFUNCTIONING PITUITARY ADENOMAS: THE COST OF SURVEILLANCE – Heather M Kistka, MD (presenter), Rebecca A Kasl, BS, Arash Nayeri, BA, Andrea L Utz, MD, PhD, Kyle D Weaver, MD, Lola B Chambless, MD, Vanderbilt University Medical Center

031: CAVERNOUS SINUS INVOLVEMENT IN PITUITARY ADENOMAS – Abdulrazag Ajlan (presenter), Achal S Achrol, Abdullah H Feroze, Erick M Westbroek, Griffith R Harsh, Stanford University

Question & Answers

032: DIABETES INSIPIDUS FOLLOWING ENDOSCOPIC TRANSSPHENOIDAL RESECTION OF PITUITARY ADENOMA – Abdulrazag Ajlan (presenter), Achal S Achrol, Yousef Aljamaan, Abdullah H Feroze, Griffith H Harsh, Stanford University

033: COMPLICATIONS AND LEARNING CURVE FOLLOWING TRANSITION TO ENDOSCOPIC TRANSSPHENOIDAL SURGERY – Tasneem Shikary, MD (presenter), Colin Edwards, MS, Jareen Meinzen-Derr, PhD, Philip V Theodosopoulos, MD, Lee A Zimmer, MD, PhD, University of Cincinnati Medical Center

034: ENDOSCOPIC PITUITARY TUMOR SURGERY: THE LEARNING CURVE – Amjad N Anaizi, MD (presenter), Christopher S Taylor, MD, Jennifer Kosty, MD, Lee Zimmer, MD, PhD, Philip V Theodosopoulos, MD, Georgetown University Hospital, University of Cincinnati, University of California, San Francisco

Question & Answers

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

[Coronado CDE](#)

4:00 pm – 5:30 pm **PROFFERED PAPERS**

PROFFERED PAPER V: Endonasal Approaches 2 (Oral presentations are 8 minutes in length and Q&A sessions are 6 minutes)

[Coronado AB](#)

MODERATORS: Ivan El-Sayed, MD & Manish Aghi, MD

035: ANTERIOR INFERIOR PETROSECTOMY: DEFINING THE ROLE OF ENDONASAL ENDOSCOPIC TECHNIQUES FOR PETROUS APEX APPROACHES – Puya Alikhani, MD (presenter), Jamie J Van Gompel, MD, Mark H Tabor, MD, Harry R van Loveren, MD, Sivero Agazzi, MD, MBA, Sebastien Froelich, MD, Sammy Youssef, MD, PhD, Department of Neurosurgery and Brain Repair, Department of Otolaryngology-Head & Neck Surgery, College of Medicine, University of South Florida, Tampa, Florida, Department of Neurosurgery, Mayo Clinic Rochester, MN

036: ENDOSCOPIC TRANSPTERYGOID NASOPHARYNGECTOMY FOR NASOPHARYNGEAL MALIGNANT TUMORS – Ronaldo N Toledo, MD, PhD (presenter), Paula A Silveira, MD, João Gonçalves Filho, MD, PhD, José G Vartanian, MD, PhD, Mauro K Ikeda, MD, PhD, Luiz P Kowalski, MD, PhD, ACCamargo Cancer Center - São Paulo/Brazil

037: COMPARATIVE COST ASSESSMENT OF TRANSSPHENOIDAL SURGERY CLOSURE TECHNIQUES: ARE BIOLOGICAL GRAFTS AND GLUES COST EFFECTIVE? – Sonia Teufack, MD (presenter), Saurabh Singhal, MD, Christopher Farrell, MD, Gurston Nyquist, MD, Marc Rosen, MD, James Evans, MD, Thomas Jefferson University Hospital

Question & Answers

038: ENDOSCOPIC ENDONASAL SURGERY FOR RESECTION OF CRANIAL BASE EPIDERMOID AND DERMOID CYSTS: ADVANTAGES AND LIMITATIONS – Francisco Vaz-Guimaraes Filho, MD (presenter), Maria Koutourousiou, MD, John R de Almeida, MD, Eric W Wang, MD, Juan C Fernandez-Miranda, MD, Carl H Snyderman, MD, MBA, Paul A Gardner, MD, University of Pittsburgh Medical Center

039: EARLY EXPERIENCE WITH NEW HIGH DEFINITION THREE-DIMENSIONAL (HD3D) NEUROENDOSCOPY – Leif-Erik Bohman, MD, James H Stephen, MD (presenter), John Y. K Lee, MD, University of Pennsylvania

040: THE ENDOSCOPIC ENDONASAL APPROACH TO THE ODONTOID AND ITS IMPACT ON EARLY EXTUBATION AND FEEDING – Theodore H Schwartz, MD, FACS (presenter), Tony Goldschlager, MBBS, PhD, FRACS, Roger Hartl, MD, FACS, Jeffrey P Greenfield, MD, FACS, Vijay K Anand, MD, FACS, Departments of Neurosurgery, Otorhinolaryngology, Neurology and Neuroscience, Weill Cornell Medical College, New York Presbyterian Hospital, New York, NY. Department of Neurosurgery, Monash Health, Melbourne, Australia.

Question & Answers

041: ENDOSCOPIC ENDONASAL OPTIC NERVE DECOMPRESSION FOR BENIGN PATHOLOGY OF THE OPTIC CANAL – T R DeKlotz, MD (presenter), S T Stefkó, MD, J C Fernandez-Miranda, P A Gardner, MD, C H Snyderman, MD, MBA, E W Wang, MD, University of Pittsburgh Medical Center

042: FREE MUCOSAL GRAFT RECONSTRUCTION FOR ANTERIOR SKULL BASE SURGERY DEFECTS – Christopher F Thompson, MD (presenter), Sophie Shay, MD, Jeffrey D Suh, MD, Marvin Bergsneider, MD, Marilene B Wang, MD, University of California Los Angeles

043: ENDOSCOPIC ENDONASAL SURGERY FOR CRANIAL BASE CHONDROSARCOMAS: COMPARISON TO OPEN APPROACHES – Francisco Vaz-Guimaraes Filho, MD (presenter), Maria Koutourousiou, MD, Eric W Wang, MD, Juan C Fernandez-Miranda, MD, Carl H Snyderman, MD, MBA, Paul A Gardner, MD, University of Pittsburgh Medical Center

Question & Answers

PROFFERED PAPER VI: Surgical Approaches (Oral presentations are 8 minutes in length and Q&A sessions are 6 minutes) *America's Cup AB*
MODERATORS: Daniel Kelly, MD & Adam Zanation, MD

044: EXTRA-DURAL ANTERIOR CLINOIDECTOMY THROUGH THE LATERAL SUPRAORBITAL APPROACH: SURGICAL ANATOMY AND INITIAL CLINICAL EXPERIENCE – Sirajeddin Belkhair, MHSC, MD, FRCSC (presenter), Amancio Guerrero Maldonado, MD, Michael Tymianski, MD, PhD, FRCSC, Ivan Radovanovic, MD, PhD, Division of Neurosurgery, Toronto Western Hospital, University Health Network and University of Toronto, Toronto, Ontario Canada.

045: KEYHOLE SUPRAORBITAL APPROACH FOR MANAGEMENT OF SUPRASELLAR TUMORS – Firas Hammadi, Ali Ayyad, Dr (presenter), Department of neurosurgery, Johannes Gutenberg university

046: COMPARISON OF OPEN AND TRANSNASAL ENDOSCOPIC APPROACHES TO THE SKULL BASE IN THE ENDOSCOPIC SKULL BASE ERA – Justin D Miller, BSPH, Satyan Sreenath, MD (presenter), Robert J Taylor, BS, Emily C Ambrose, BSPH, Charles S Ebert, Jr., MD, MPH, Adam M Zanation, MD, University of North Carolina Department of Otolaryngology/Head and Neck Surgery

Question & Answers

047: BRAINSTEM CAVERNOMAS: SURGICAL MANAGEMENT AND CLINICAL OUTCOME – Ali Ayyad, MD, FRCSC (presenter), Firas Hammadi, MD, Department of neurosurgery, Johannes Gutenberg university

048: OCCIPITAL TRANSTENTORIAL APPROACH FOR POSTERIOR CRANIAL FOSSA TUMORS – Young Il Kim, MD (presenter), Sin Soo Jeun, MD, PhD, Department of Neurosurgery, Seoul St. Mary's Hospital The Catholic University of Korea, Seoul, Korea

049: QUANTITATIVE ANALYSIS OF THE EFFECT OF BRAINSTEM SHIFT ON SURGICAL APPROACHES TO ANTEROLATERAL TUMORS AT THE CRANIOVERTEBRAL JUNCTION – Varun R Kshetty, MD (presenter), Silky Chotai, MD, William Chen, Jun Zhang, PhD, Mario Ammirati, MD, MBA, Cleveland Clinic, Ohio State University

Question & Answers

050: OPTIC NERVE SURFACE TEMPERATURE DURING INTRADURAL ANTERIOR CLINOIDECTOMY: A COMPARISON BETWEEN HIGH-SPEED DIAMOND BURR AND ULTRASONIC BONE CURETTE – Varun Kshetty, MD (presenter), Xiaobing Jiang, MD, Silky Chotai, MD, Mario Ammirati, MD, MBA, Cleveland Clinic, Ohio State University

051: THE FAR-LATERAL TRANSCONDYLAR APPROACH TO PONTOMEDULLARY JUNCTION BRAINSTEM CAVERNOMAS – Ben Boudreaux, MD (presenter), Bruno Flores, MD, Jeremy Lewis, MD, Samuel Barnett, MD, University of Texas Southwestern Medical Center

052: MODIFIED ANTERIOR TRANSPETROSAL POSTERIOR CAVERNOUS POSTEROMEDIAL RHOMBOID (DOLENC-KAWASE RHOMBOID) APPROACH TO POSTERIOR CAVERNOUS AND PETROCLIVAL LESIONS – Ashish Suri, MD (presenter), All India Institute of Medical Sciences, New Delhi, India

Question & Answers

PROFFERED PAPER VII: General (Oral presentations are 8 minutes in length and Q&A sessions are 6 minutes) *America's Cup CD*
MODERATORS: Luciano Prevedello, MD & Elizabeth Tyler-Kabara, MD

053: PET CT CRITERIA FOR “POSITIVE” RESULT IN SKULL BASE IMAGING ARE PROBLEMATIC: CASE SERIES AND SYSTEMATIC REVIEW OF THE LITERATURE – John P Hines, MD (presenter), Brittany E Howard, MD, Joseph Hoxworth, MD, Devyani Lal, MD, Mayo Clinic Arizona

054: AN ANALYSIS OF 163 CASES OF SKULL BASE ASPERGILLOSIS OVER 12 YEARS – Sandeep Mohindra, MD, FRCS (presenter), Postgraduate Institute of Medical Education & Research, Chandigarh, India

055: SUSPECTED SKULL BASE ASPERGILLOSIS: ENDOSCOPY VS RADIOLOGY – Satyawati Mohindra, MS (presenter), Sandeep Mohindra, Dr, Post Graduate Institute of Medical Education and Research, Chandigarh, India

Question & Answers

056: REPAIR OF FRONTOETHMOIDAL ENCEPHALOCELE IN THE PHILIPPINES: AN ACCOUNT OF 30 CASES BETWEEN 2008-2013 – Amanda Lynn Marshall, MPH (presenter), Pradeep Setty, DO, Mark Hnatiuk, MD, Daniel R Pieper, MD, (1) Oakland University William Beaumont School of Medicine (2) Department of Neurosurgery, St. John Providence Health System (3) Craniofacial Institute of Michigan (4) Department of Neurosurgery, William Beaumont Hospital (Royal Oak, Michigan)

057: THE NAVIGATION-GUIDED CORRECTION OF CRANIAL-ORBITAL-FACIAL FIBROUS DYSPLASIA – Yiqun Wu, MD (presenter), Huayi Chen, MD, Baohua Fan, BS, Shanghai 9th People's Hospital, Shanghai Jiaotong University School of Medicine

058: THE COSTS OF SKULL BASE SURGERY IN THE PEDIATRIC POPULATION – Amanda L Stapleton, MD (presenter), Elizabeth Tyler-Kabara, MD, PHD, Paul A Gardner, MD, Carl H Snyderman, MD, MBA, University of Pittsburgh Medical Center: Departments of Otolaryngology and Neurosurgery

Question & Answers

059: PATIENT PERCEPTIONS AND EXPECTATIONS OF ENDOSCOPIC SKULL BASE SURGERY – Yemeng Lu, BS (presenter), Candace A Mitchell, MD, Adam M Zanation, MD, University of North Carolina at Chapel Hill Department of Otolaryngology/Head and Neck Surgery

060: SKULL BASE OPERATIVE EXPERIENCE IN U.S. OTOLARYNGOLOGY RESIDENCY TRAINING PROGRAMS – Aaron K Remenschneider, MD, MPH (presenter), Josh C Meier, MD, Kyle Chambers, MD, Matthew Dedmon, MD, PhD, Derrick T Lin, MD, Stacey T Gray, MD, Massachusetts Eye and Ear Infirmary, Harvard Medical School, Boston, Massachusetts

061: COCHLEAR RADIATION DOSE DOES NOT AFFECT HEARING PRESERVATION AFTER GAMMA KNIFE RADIOSURGERY IN THOSE WITHOUT VESTIBULAR SCHWANNOMA – Jeffrey T Jacob, MD (presenter), Michael S Oldenburg, MD, Matthew L Carlson, MD, Driscoll L Colin, MD, Micheal J Link, MD, Mayo Clinic

Question & Answers

PROFFERED PAPER VIII: Chordomas, Chondrosarcomas, and Vascular Lesions

Regatta BC

(Oral presentations are 8 minutes in length and Q&A sessions are 6 minutes)

MODERATORS: Stacey Gray, MD & Daniel Prevedello, MD

062: TREATMENT AND OUTCOME OF PATIENTS WITH SKULL BASE CHORDOMA: A META-ANALYSIS – Moran Amit, Shorook Na'ara, Salem Balan, Gil Svir, Jacob Cohen, Ziv Gil (presenter), Rambam Medical Center, Rappaport School of Medicine, the Technion, Israel Institute of Technology, Haifa, Israel.

063: COMBINED ENDONASAL AND TRANSCRANIAL RESECTION OF COMPLEX SKULL BASE CHORDOMAS AND CHONDROSARCOMAS: A MULTI-CORRIDOR STRATEGY – Leo F Ditzel Filho, MD (presenter), Daniel G de Souza, MD, Edward E Kerr, MD, Ali O Jamshidi, MD, Mihir R Patel, MD, Bradley A Otto, MD, Ricardo L Carrau, MD, Daniel M Prevedello, MD, The Ohio State University Wexner Medical Center

064: CYBERKNIFE STEREOTACTIC RADIOSURGERY FOR INTRACRANIAL CHORDOMAS – Abdulrazag Ajlan (presenter), Scott G Soltys, Anand Veeravagu, Bowen Jiang, Marco Lee, Griffith R Harsh, Iris C Gibbs, John R Adler, Steven D Chang, Stanford University

Question & Answers

065: PEDIATRIC MESENCHYMAL CHONDROSARCOMA – Jessica M Somerville, MD (presenter), Michael Bishop, MD, Sandeep Samant, MS, FRCS, Alberto Pappo, MD, Frederick Boop, MD, Valerie McPherson, CRA, St. Jude Children's Research Hospital

066: ENDOSCOPIC ENDONASAL TRANSCLIVAL APPROACHES: CASE SERIES & OUTCOMES FOR DIFFERENT CLIVAL REGIONS – Ryan E Little (presenter), Robert J Taylor, Justin D Miller, Emily Cohn, Adam M Zanation, MD, University of North Carolina, Chapel Hill, North Carolina

067: ENDOSCOPIC ANATOMY AND APPROACH OF THE CAVERNOUS SINUS – Victor A Morera Porras, MD (presenter), Gelareh Zadeh, MD, PhD, FRCSC, Fred Gentili, MD, MSc, FRCSC, Juan Fernandez-Miranda, MD, Division of Neurosurgery, University of Toronto; Department of Neurosurgery, University of Pittsburgh

Question & Answers

068: THE UTILITY AND LIMITATIONS OF INDOCYANINE GREEN VIDEO ANGIOGRAPHY FOR ANTERIOR CIRCULATION ANEURYSM SURGERY – Bharat Guthikonda, MD, Sudheer Ambekar, MD, Mayur Sharma, MD, Osama Ahmed, MD (presenter), Menarvia Nixon, MD, Chiazio Amene, MD, Anil Nanda, MD, LSU HSC Shreveport

069: INTRAOPERATIVE DYNAMIC ASSESSMENT OF THE POSTERIOR COMMUNICATING ARTERY AND ITS BRANCHES BY INDOCYANINE GREEN VIDEOANGIOGRAPHY – Mustafa Baskaya, Associate, professor, Bora Gurur, MD, Veysel Antar, MD, Ulas Cikla, MD (presenter), Andy Bauer, MD, University of Wisconsin, The Department of Neurological Surgery

070: SUPERIOR HYPOPHYSEAL ARTERY ANATOMY: A VENTRAL PERSPECTIVE – Daniel G de Souza, MD (presenter), Daniel M Prevedello, MD, Leo F Ditzel Filho, MD, Juan Barges-Coll, MD, Francesco Doglietto, MD, Victor Morera, MD, Bradley A Otto, MD, Ricardo L Carrau, MD, The Ohio State University

Question & Answers

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

Coronado CDE

SATURDAY, FEBRUARY 15, 2014

7:00 am – 8:00 am **BREAKFAST SEMINARS**

BS5: Approaches to the Infratemporal Fossa

Coronado AB

MODERATOR: Lee Zimmer, MD, PhD – *Introductions and Overview*

SPEAKERS:

- C. Arturo Solares, MD – *Anterior and Endoscopic Approached to the Infratemporal Fossa*
- John Leonetti, MD – *Neuro-otologic Approaches to the Infratemporal Fossa*

BS6: Reconstruction of Large Craniofacial Defects

America's Cup AB

CASE STUDIES: *Lessons Learned in Complex Skull Base Reconstruction a Case Based Approach*

MODERATOR: Peter Neligan, MD

SPEAKERS: Mathew Old, MD & Ralph Gilbert, MD

BS7: Innovations in Endovascular Neurosurgery

America's Cup CD

MODERATOR: Eric Sauvageau, MD

SPEAKERS:

- B. Gregory Thompson, MD – *Lessons Learned with the Use of Stents for Aneurysmal Disease*
- Aaron Dumont, MD – *Innovations in Aneurysm Treatment*

BS8: Skull Base Resection for Cutaneous Malignancies

Regatta BC

MODERATOR: Fernando Dias, MD – *Introduction*

SPEAKERS:

- Claudio Cernea, MD – *Technical Aspects of Craniofacial Resection for Cutaneous Malignancies*
- Dan Fliss, MD – *Craniofacial Resection for Non Melanoma Cutaneous Malignancy*
- Case Discussion – PRESENTER: Fernando L. Dias, MD, DEBATERS: Cláudio Cernea, MD & Dan Fliss, MD

8:05 am – 9:00 am **CONCURRENT SESSIONS**

CS9: Management of Atypical/Aggressive Meningiomas

Coronado AB

MODERATOR: Ossama Al-Mefty, MD

SPEAKERS:

- Fred Barker, MD – *Atypical Meningiomas - Decision Making*
- Eugene Yu, MD – *Imaging of Atypical and Aggressive Meningiomas*
- Patrick Wen, MD – *Novel Medical Therapies for Atypical/Aggressive Meningiomas*
- Vikram Prabhu, MD – *Surgical Management of Atypical Aggressive Meningiomas*

CS10: Management of Complex Cranial Base Aneurysms

America's Cup AB

MODERATOR: Laligam Sekhar, MD

SPEAKERS:

- Jacques Morcos, MD – *Intracranial-Intracranial Bypasses: Video Examples*
- Ketan Bulsara, MD – *Patient Specific Treatment to Optimize Outcome for Aneurysms: A Disease Specific Approach*
- B. Gregory Thompson, MD – *Management of Complex Cranial Base Aneurysms: Use of Clip Reconstruction Versus Bypass*
- Laligam Sekhar, MD – *Bypasses or Pipeline Stent for Complex Aneurysms*

CS11: Sinonasal Carcinomas

America's Cup CD

MODERATOR: Jatin Shah, MD

SPEAKERS (CASE DISCUSSIONS):

- Michael Kupferman, MD
- Patrick Gullane, MD
- Merrill Kies, MD
- Lawrence Ginsberg, MD

CS12: Best Outcome for Glomus Tumors

Regatta BC

MODERATOR: Daniel Nuss, MD

SPEAKERS:

- Mark McDonald, MD – *Review of Radiotherapy Options for Paraganglioma*
- Giovanni Danesi, MD – *New Perspectives in Management of Temporal Bone Paragangliomas*
- Laurie Loevner, MD – *The Role of Imaging in Paragangliomas*
- Michael Gleeson, MD – *Paragangliomas: Ensuring Best Outcomes By A Rational Management Protocol*

Scientific Program

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

Coronado CDE

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

9:30 am: **Honored Guest Lecturer** – Piero Nicolai, MD

10:00 am: **Keynote Lecturer** – David Dravecky, former Major league baseball player (San Francisco Giants),
Founder of Endurance with Jan and Dave Dravecky

10:45 am: **Awards & Recognition Ceremony**

- BEST PAPER BY A MEDICAL STUDENT: “Comparison of Open and Transnasal Endoscopic Approaches to the Skull Base in the Endoscopic Skull Base Era”
Justin Miller, BSPH, The University of North Carolina at Chapel Hill, Department of Otolaryngology/Head and Neck Surgery, Chapel Hill, NC
- BEST RESIDENT CLINICAL PAPER: “Surgical Management of Nonmelanoma Skin Cancers Involving the Skull Base”
Shaan M. Raza, MD, UT MD Anderson Cancer Center, Department of Neurosurgery, Houston, TX
- BEST RESIDENT BASIC SCIENCE: “Comparative Proteomic Profiling Using Two-Dimensional Gel Electrophoresis and Identification Via LC-MS/MS Reveals Protein Biomarkers That Distinguish Aggressive From Non-Aggressive Phenotypes of WHO Grade I Meningioma”
Joshua Osburn, MD, University of Washington, Department of Neurological Surgery, Seattle WA

10:55 am: **The Rhoton Project: The NASBS Skull Base Collection** – Sandeep Samant, MD & Jeff Sorenson, MD

11:05 am: **Introduction of Guest of Honors** – GUESTS OF HONOR: Harvey Tucker, MD, FACS, James Suen, MD, FACS, Ivo Janecka, MD, MBA, PhD, Franco DeMonte, MD, Randal Weber, MD & DISTINGUISHED SERVICE AWARD: Daniel Nuss, MD

11:15 am: **Presidential Address** – Ehab Hanna, MD, FACS

12:00 pm – 1:00 pm **Lunch on Own**

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

CS13: Best Outcome for Olfactory Groove Meningioma

Coronado AB

MODERATOR: Christopher Farrell, MD

SPEAKERS:

- Charlie Teo, MD – Olfactory Groove Meningiomas: the Pros & Cons of an Endonasal Approach
- Khaled Aziz, MD – Frontal Orbital Craniotomy (Eyelid Crease Incision) for Resection of Olfactory Groove Meningiomas
- William Couldwell, MD – Natural History of Olfactory Groove Meningiomas - Role of Observation
- Eric Chang, MD – Radiation Therapy For Olfactory Groove Meningiomas

CS14: Non Functional Pituitary Tumors

America's Cup AB

MODERATOR: Philip Theodosopoulos, MD

SPEAKERS:

- Daniel Kelly, MD – Endoscopic Removal of Non-functioning adenoma: Maximizing Resecting
- Philip Theodosopoulos, MD – Endoscopic Pituitary Surgery: Learning Curve and Outcomes
- Peter Savino, MD – Predicting Visual Recovery Before Surgery
- Jurij Bilyk, MD – Ophthalmologic Manifestations of Pituitary Tumors
- Gurston Nyquist, MD – Managing Postoperative Care Following Transsphenoidal Surgery for Pituitary Tumors

CS15: Perineural Spread

America's Cup CD

MODERATOR: Benedict Panizza, MD – Overview of Perineural Invasion

SPEAKERS:

- Richard Wong, MD – Mechanisms of Perineural Invasion
- Lawrence Ginsberg, MD – Perineural Tumor Spread-Selected Imaging Issues
- Franco DeMonte, MD – Surgical Management of Perineural Invasion
- David Rosenthal, MD – Radiotherapy of Perineural Invasion

CS16: Trigeminal Schwannoma

Regatta BC

MODERATOR: Carl Heilman, MD

SPEAKERS:

- Siviero Agazzi, MD – Transcranial Approaches for Trigeminal Schwannomas
- Donald Anino, MD – Transfacial Open and Endoscopic Approaches for Trigeminal Schwannomas
- Wenyin Shi, MD – Radiosurgery and Radiation Therapy for Trigeminal Schwannomas
- Paul Gardner, MD – Trigeminal Nerve/Skull Base/Cavernous Sinus Anatomy, Endoscopic Endonasal Approach for Trigeminal Schwannoma

PROFFERED PAPER IX: Endonasal Approaches 3 (Oral presentations are 8 minutes in length and Q&A sessions are 6 minutes) *America's Cup AB*

MODERATORS: Erin Lynn McKean, MD & Nancy McLaughlin, MD

071: MINIMIZING SEPTECTOMY FOR ENDOSCOPIC TRANSPHENOIDAL APPROACHES TO THE SELLAR AND SUPRASellar REGIONS: A CADAVERIC MORPHOMETRIC STUDY - H G Garcia, MD (presenter), M Pyfer, BS, S J Singhal, MD, M L Otten, MD, A M Illoreta, MD, C J Farrell, MD, G G Nyquist, MD, M R Rosen, MD, J J Evans, MD, Department of Neurological Surgery and Otolaryngology, Head and Neck Surgery, Thomas Jefferson University, Philadelphia, Pennsylvania

072: ENDOSCOPIC ENDONASAL APPROACHES TO INFRATEMPORAL FOSSA TUMORS: A CLASSIFICATION SYSTEM & CASE SERIES - Adam M Zanation, MD (presenter), Robert J Taylor, BS, Mihir R Patel, MD, Stephen A Wheless, MD, Kibwei A McKinney, MD, Michael E Stadler, MD, Deanna Sasaki-Adams, MD, Matthew G Ewend, MD, Anand V Germanwala, MD, University of North Carolina at Chapel Hill

073: A PERFUSION-BASED HUMAN CADAVERIC MODEL FOR MANAGEMENT OF CAROTID ARTERY INJURY DURING ENDOSCOPIC ENDONASAL SKULL BASE SURGERY - Martin Pham, MD (presenter), Aydemir Kale, MD, Yvette Marquez, MD, Jesse Winer, MD, Brian Lee, MD, PhD, Brianna Harris, BA, Michael Minnetti, BS, Joseph Carey, MD, Steven Giannotta, MD, Gabriel Zada, MD, University of Southern California

Question & Answers

074: 3D ENDOSCOPIC TRANSTUBULAR ANTERIOR PETROSECTOMY FOR PETROCLIVAL MENINGIOMAS: ASSESSMENT OF RESECTION IN VARYING TUMOR VOLUMES UTILIZING A SYNTHETIC TUMOR MODEL - Alexander I Evins, MD (presenter), Alireza Shoakazemi, MD, Justin C Burrell, MS, Rahul Kapoor, BS, Philip E Stieg, MD, PhD, Antonio Bernardo, MD, Department of Neurological Surgery, Weill Cornell Medical College, New York, NY, USA

075: 3D ENDOSCOPE-ASSISTED TRANSCALLOSAL APPROACH TO THE THIRD VENTRICLE USING A MINIMALLY INVASIVE TUBULAR RETRACTOR SYSTEM - A FEASIBILITY STUDY - Alireza Shoakazemi, MD (presenter), Alexander I Evins, MD, Philip E Stieg, MD, PhD, Antonio Bernardo, MD, Department of Neurological Surgery, Weill Cornell Medical College, New York, NY, USA

076: THE ROLE OF BIMANUAL DISSECTION AND DYNAMIC ENDOSCOPY IN ENDOSCOPIC NEUROSURGICAL TRAINING: A LABORATORY INVESTIGATION - Francisco Vaz-Guimaraes Filho, MD (presenter), Milton M Rastelli, Jr, MD, Juan C Fernandez-Miranda, MD, Eric W Wang, MD, Paul A Gardner, MD, Carl H Snyderman, MD, MBA, University of Pittsburgh Medical Center

Question & Answers

077: COMPARING THE COST-EFFECTIVENESS OF ENDOSCOPIC AND MICROSCOPIC APPROACHES TO TRANSPHENOIDAL PITUITARY SURGERY - Jared D Ament, MD, MPH (presenter), Zhuo Yang, MS, Patrick Tertulien, BS, Kiarash Shahlaie, MD, PhD, UC-Davis Medical Center, Sacramento, California; Center for Disease Control, Atlanta Georgia

078: EVALUATION OF SURGICAL FREEDOM FOR FOUR MICROSCOPIC AND ENDOSCOPIC TRANSPHENOIDAL APPROACHES TO THE SELLA - Ali M Elhadi, MD (presenter), Yashar S Kalani, MD, PhD, Peter Nakaji, MD, William L White, MD, Mark C Preul, MD, Andrew S Little, MD, Barrow Neurological Institute / St. Joseph's Hospital

079: COMPARATIVE RESOURCE UTILIZATION IN PATIENTS UNDERGOING ENDOSCOPIC AND MICROSCOPIC TRANSPHENOIDAL SURGERY FOR PITUITARY TUMORS - Andrew S Little (presenter), Heidi Jahnke, RN, MSN, Katharine Cronk, MD, Kristina Chapple, PhD, William L White, MD, Barrow Neurological Institute

Question & Answers

PROFFERED PAPER X: Temporal Bone (Oral presentations are 8 minutes in length and Q&A sessions are 6 minutes)

America's Cup CD

MODERATORS: Felipe Santos, MD & John Lee, MD

080: OUTCOME AND COMPLICATIONS AFTER IMPLANTATION OF THE BONE-ANCHORED HEARING AID IN PATIENTS TREATED WITH RADIOTHERAPY TO THE TEMPORAL BONE - Marc-Elie Nader, MD (presenter), Beth M Beadle, MD, Dianna B Roberts, PhD, Paul W Gidley, MD, The University of Texas MD Anderson Cancer Center

081: TEMPORAL BONE ENCEPHALOCELE REPAIR – OUR EXPERIENCE. - Rahul Mehta, MD, FRCS (presenter), Samuel Spear, MD, Yu-Lan Mary Ying, MD, Kelly J Scrantz, MD, Daniel W Nuss, MD, FACS, Moises A Arriaga, MD, MBA, FACS, Our Lady of Lake Regional Medical Center/ LSUHSC, New Orleans

082: SQUAMOUS CARCINOMA OF THE TEMPORAL BONE: LESSONS LEARNED OVER THE PAST THIRTY YEARS - L Masterson, MRCS, M J Rouhani, BA (presenter), N P Donnelly, MSc, FRCS, J R Tysome, PhD, FRCS, P Patel, MSc, FRCS, P Axon, MD, FRCS, D A Moffatt, PhD, FRCS, Department of Neuro-otology and Skull Base Surgery, Cambridge University Teaching Hospitals NHS Trust

Question & Answers

083: EXTERNAL AUDITORY CANAL AND TEMPORAL BONE CARCINOMA WITH PAROTID GLAND AND FACIAL NERVE INVOLVEMENT - Samuel A Spear, MD (presenter), Rahul Mehta, MD, Yu-Lan Mary Ying, MD, Daniel W Nuss, MD, FACS, Moises A Arriaga, MD, MBA, FACS, Department of Otolaryngology-Head & Neck Surgery, Louisiana State University Health Science Center New Orleans and Our Lady of the Lake Hearing and Balance Center, Baton Rouge, LA

084: MANAGEMENT OF GLOMUS TUMORS IN A SINGLE REFERRAL CENTER - Ali Kouhi, MD (presenter), Masoud Motasaddi Zarandy, MD, Otorhinolaryngology research center, Tehran University of Medical Sciences

085: SURGICAL TREATMENT OF SUPERIOR SEMICIRCULAR CANAL DEHISCENCE IS ASSOCIATED WITH SIGNIFICANT IMPROVEMENT IN CLINICAL OUTCOME - Lawrence Chung (presenter), Nolan Ung, Kimberly Thill, Quinton Gopen, MD, Isaac Yang, MD, University of California, Los Angeles

Question & Answers

086: RECONSTRUCTION AFTER RETROSIGMOID APPROACHES USING AUTOLOGOUS FAT GRAFT-ASSISTED MEDPOR TITAN CRANIOPLASTY: ASSESSMENT OF POSTOPERATIVE CEREBROSPINAL FLUID LEAKS AND HEADACHES IN 46 CASES - Phoebe Y Ling, BS (presenter), Rohit K Reddy, BS, Zachary S Mendelson, BS, Robert W Jyung, MD, James K Liu, MD, FAANS, Departments of Neurological Surgery and Otolaryngology-Head and Neck Surgery, Center for Skull Base and Pituitary Surgery, Rutgers New Jersey Medical School, Neurological Institute of New Jersey, Newark, New Jersey

087: FIBROUS DYSPLASIA OF THE TEMPORAL BONE: CONTEMPORARY DIAGNOSIS AND MANAGEMENT - Christopher D Frisch (presenter), Matthew L Carlson, Brian A Neff, Michael J Link, Colin L Driscoll, Department of Otolaryngology-Head and Neck Surgery, Department of Neurologic Surgery, Mayo Clinic School of Medicine, Rochester, MN USA 55905

088: RADIOSURGERY TREATMENT OF NEW AND RECURRENT GLOMUS TUMORS - Navjot Chaudhary, MD (presenter), Iris Gibbs, MD, Scott Soltys, MD, Griffith Harsh, Steven D Chang, MD, Stanford University

Question & Answers

PROFFERED PAPER XI: Meningiomas 1 (Oral presentations are 8 minutes in length and Q&A sessions are 6 minutes)

Coronado AB

MODERATORS: Khaled Aziz, MD & Bradley A. Otto, MD

089: THE FAR LATERAL APPROACH FOR FORAMEN MAGNUM MENINGIOMAS - Bruno C Flores, MD, Benjamin P Boudreaux, MD (presenter), Daniel R Klinger, MD, Jack M Raisanen, MD, Jeremy J Lewis, MD, Bruce E Mickey, MD, Samuel L Barnett, MD, University of Texas Southwestern Medical Center

090: TUBERCULUM SELLAE MENINGIOMAS - RADIOLOGICAL CLASSIFICATION AND ITS CLINICAL SIGNIFICANCE - Silky Chotai (presenter), Liu Yi, Pan Jun, Songtao Qi, Department of Neurosurgery, Nanfang Hospital of Southern Medical University, Guangzhou, China

091: INTRACRANIAL MENINGIOMAS: PREDICTOR FACTORS OF CLINICAL BEHAVIOR AND PATIENTS OUTCOME - George Klironomos, MD, PhD (presenter), Soroush Larjani, HonBSc, Alireza Mansouri, MD, Aisha Ghare, HonBSc, Alexandra Kilian, Kenneth Aldape, MD, Gelareh Zadeh, MD, PhD, Toronto Western Hospital, University Health Network

Question & Answers

092: ATYPICAL MENINGIOMAS: RECURRENCE, RE-OPERATION AND RADIOTHERAPY - Daniel Klinger, MD (presenter), Jeremy Lewis, MD, Kimmo Hatanpaa, MD, PhD, Kevin Choe, MD, PhD, Bruce Mickey, MD, Samuel Barnett, MD, University of Texas Southwestern Medical Center at Dallas

093: ANALYSIS OF OUTCOMES FOR SURGICAL RESECTION AND RADIOTHERAPY IN PATIENTS WITH INTRACRANIAL PAPILLARY MENINGIOMA - Christina Fong (presenter), Kimberly Thill, Nolan Ung, Andy Trang, Quinton Gopen, MD, Isaac Yang, MD, University of California, Los Angeles

094: SURGICAL MANAGEMENT OF POSTERIOR FOSSA MENINGIOMAS: OPERATIVE TECHNIQUES, COMPLICATIONS AND OUTCOME IN 59 CASES - Nevo Margalit, MD (presenter), Lior Gonen, MD, Amir Hadani, MD, Neurosurgery Tel Aviv Medical Center

Question & Answers

095: NOVEL FINDINGS IN A CASE SERIES OF FALCINE MENINGIOMAS: EXPERIENCE WITH 115 PATIENTS - Daryoush Tavanaiepour, MD, Mohamed Abolfotoh, MD, Urvashi Upadhyay, MD (presenter), Ossama Al-Mefty, MD, Brigham and Women's Hospital

096: MULTIMODALITY TREATMENT OF 15 MALIGNANT WHO III (2007 CRITERIA) MENINGIOMAS: DIFFERENTIAL SURVIVAL RATES BETWEEN DE NOVO AND PROGRESSIVE ORIGINS. - Philip D Tatman (presenter), Joshua Osbun, MD, Owais Ahmad, BS, Maciej M Mrugala, MD, PhD, MPH, Jason K Rockhill, MD, PhD, Lois Gonzalez-Cuyar, MD, Donald Born, MD, PhD, Manuel Jr. Ferreira, MD, PhD, University of Washington

097: OUTCOMES FOLLOWING MODERN-DAY MENINGIOMA SURGERY IN THE ELDERLY - Bjorn M Lobo, MD (presenter), Varun Kshetty, MD, Burak Sade, MD, Soichi Oya, MD, PhD, Joung H Lee, MD, Cleveland Clinic Foundation

Question & Answers

PROFFERED PAPER XII: Sinonasal Tumors (Oral presentations are 8 minutes in length and Q&A sessions are 6 minutes)

Regatta BC

MODERATORS: Snehal Patel, MD & Anand Germanwala, MD

098: PROGNOSIS AND BIOLOGY IN ESTHESIONEUROBLASTOMA: STAGING VERSUS GRADING DILEMMA - THE MDACC EXPERIENCE. - R Saade, MD (presenter), D Roberts, PhD, Tj Ow, MD, E Hanna, MD, M Kupferman, MD, F DeMonte, MD, D Bell, MD, The University of Texas MD Anderson Cancer Center

099: INCIDENCE AND SURVIVAL PATTERNS OF SINONASAL UNDIFFERENTIATED CARCINOMA IN THE UNITED STATES - Kyle J Chambers, MD (presenter), Ashton Lehmann, MS, Aaron Remenschneider, MD, Matthew Dedmon, MD, PhD, Bharat Yarlagadda, MD, Stacey T Gray, MD, Derrick T Lin, MD, Massachusetts Eye and Ear Infirmary, Harvard Medical School

100: PREDICTORS OF SURVIVAL IN SINONASAL ADENOCARCINOMA - Michelle M Chen, BA (presenter), Sanziana A Roman, MD, Julie A Sosa, MD, Benjamin L Judson, MD, Yale University School of Medicine, Duke University School of Medicine

Question & Answers

101: ESTHESIONEUROBLASTOMA: AN UPDATE ON THE UCLA EXPERIENCE 2002-2013 - Bobby A Tajudeen, MD (presenter), Armin Arshi, BS, Jeffrey D Suh, MD, Miguel Fernando Palma-Diaz, MD, Elliot Abemayor, MD, PhD, Maie St. John, MD, PhD, Marilene B Wang, MD, David Geffen School of Medicine at UCLA

102: DEFINITIVE PROTON BEAM THERAPY FOR ADENOID CYSTIC CARCINOMA OF THE NASOPHARYNX - Darwin Yip, MD (presenter), Norbert Liebsch, MD, Daniel Deschler, MD, Derrick Lin, MD, Mark Vavares, MD, Annie Chan, MD, Massachusetts General Hospital

103: GENOMIC CHARACTERIZATION OF SINONASAL UNDIFFERENTIATED CARCINOMA - Yoko Takahashi, PhD (presenter), Curtis Pickering, PhD, Alexander Gelbard, MD, Jennifer Drummond, BS, David A Wheeler, PhD, Michael E Kupferman, MD, Jeffrey N Myers, MD, PhD, Ehab Y Hanna, MD, The University of Texas MD Anderson Cancer Center

Question & Answers

104: ENDOSCOPIC ENDONASAL MANAGEMENT OF SINONASAL HEMANGIOPERICYTOMAS – A ROLE FOR AGGRESSIVE RESECTION. - M L Otten, MD (presenter), S J Singhal, MD, A M Iloreta, MD, H G Garcia, MD, G G Nyquist, MD, C J Farrell, MD, J Casey, MD, M R Rosen, MD, J J Evans, MD, Thomas Jefferson University

105: ENDOSCOPIC VERSUS TRADITIONAL CRANIOFACIAL APPROACHES IN MANAGEMENT OF JUVENILE NASOPHARYNGEAL ANGIOFIBROMAS - Andrew Kroeker, MD (presenter), Stephen B Chinn, MD, Erin McKean, David Brown, MD, Stephen Sullivan, MD, Lawrence J Marentette, MD, University of Michigan

106: SINONASAL INVERTED PAPILLOMA WITH SKULL BASE INVOLVEMENT - R. Peter Manes, MD (presenter), William Scott, MD, Samuel Barnett, MD, Pete S Batra, MD, FACS, University of Texas Southwestern Medical Center and Yale University School of Medicine

Question & Answers

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

Coronado CDE

4:00 pm – 5:30 pm **PROFFERED PAPERS**

PROFFERED PAPER XIII: Reconstruction (Oral presentations are 8 minutes in length and Q&A sessions are 6 minutes)

America's Cup AB

MODERATORS: Ralph Gilbert, MD & Jimmy Yu Wai Chan, MD

107: SPLIT-CALVARIAL OSTEOPERICRANIAL ROTATIONAL FLAP FOR RECONSTRUCTION FOLLOWING ENDOSCOPIC ANTERIOR CRANIAL BASE RESECTION - Robert D Engle, MD (presenter), Maria Peris-Celda, MD, PhD, Trace Barrett, BS, Tyler J Kenning, MD, Carlos D Pinheiro-Neto, MD, PhD, Albany Medical Center

108: RADIOLOGICAL FEATURES OF THE POST-RECONSTRUCTED ANTERIOR SKULL BASE - A Fliker, MD (presenter), P Bou-Haidar, MD, J Ly, MD, B Woodford, MD, M Winder, MD, C Teo, MD, A Davidson, MD, R J Harvey, MD, St. Vincent's Hospital, Sydney, Australia

109: ANATOMIC NUANCES OF THE ENDOSCOPIC EXTRACRANIAL PERICRANIAL FLAP RECONSTRUCTION - Robert A Miller, MD (presenter), Rodolfo Bonilla, MD, Yancy Acosta, MD, Paul Gardner, MD, Carl H Snyderman, MD, MBA, Eric Wang, MD, Juan Fernandez-Miranda, MD, University of Pittsburgh Medical Center

Question & Answers

110: INACCURATE ASSESSMENTS OF ANTERIOR CRANIAL BASE MALIGNANCY FOLLOWING NASOSEPTAL FLAP RECONSTRUCTION - Elisa A Illing, MD, Erika M Walsh, MD (presenter), Kristen O Riley, MD, Bradford A Woodworth, MD, University of Alabama- Birmingham

111: LOWER TRAPEZIUS ISLAND MUSCULOCUTANEOUS FLAP FOR RECONSTRUCTION OF OCCIPITOTEMPORAL WOUNDS AFTER POSTERIOR AND LATERAL SKULLBASE SURGERY - Joseph Zenga, MD (presenter), Jason Diaz, MD, Washington University

112: MICROVASCULAR FREE FLAP RECONSTRUCTION OF DURAL DEFECTS - Alfred Marc C Iloreta, MD (presenter), Marc Rosen, MD, Gurston Nyquist, MD, William J Parkes, MD, Ryan N Heffelfinger, MD, Howard Krein, MD, Joseph M Curry, MD, David Cognetti, MD, Christopher Farrell, MD, Jill DeSouza, MD, James J Evans, MD, Thomas Jefferson University

Question & Answers

113: SELLAR AND PLANUM RECONSTRUCTION USING ABSORBABLE PLATES WITH ENDONASAL ENDOSCOPIC SURGERY - Marvin Bergsneider, MD (presenter), Diana L Pinto de Santana, MD, Marilene B Wang, MD, UCLA

114: USE OF ACELLULAR DERMAL ALLOGRAFT FOR SELLAR RECONSTRUCTION AFTER ENDOSCOPIC TRANSSPHENOIDAL RESECTION OF PITUITARY TUMORS - Ellina Hattar, BA (presenter), Zachary S Mendelson, BS, Jean A Eloy, MD, FACS, James Liu, MD, Department of Neurological Surgery, Rutgers University – New Jersey Medical School, Newark, NJ; Department of Otolaryngology – Head & Neck Surgery, Rutgers University – New Jersey Medical School, Newark, NJ

Question & Answers

PROFFERED PAPER XIV: Head and Neck Cancer (Oral presentations are 8 minutes in length and Q&A sessions are 6 minutes) [America's Cup CD](#)
MODERATORS: Allan Vescan, MD & Michael Kupferman, MD

115: SURGICAL MANAGEMENT OF NONMELANOMA SKIN CANCERS INVOLVING THE SKULL BASE - Shaan M Raza, MD (presenter), Franco DeMonte, MD, The University of Texas MD Anderson Cancer Center

116: ANALYSIS OF FAILURE IN PATIENTS WITH ADENOID CYSTIC CARCINOMA OF THE HEAD AND NECK - Moran Amit, Yoav Binenbaum, Kanika Sharma, Naomi Ramer, Ilana Ramer, Abib Agbetoba, Brett Miles, Yang Xinjie, Lei Delin, Kristine Bjoerndal, Christian Godballe, Thomas Mücke, Wolff Klaus-Dietrich, Dan Fliss, Andre M Eckardt, Chiara Copelli, Enrico Sesenna, Frank Palmer, Snehal Patel, Ziv Gil (presenter), Rambam Medical Center, Rappaport School of Medicine, the Technion, Israel institute of technology, Haifa, Israel.

117: SHOULD SKULL BASE SURGERY BE OFFERED FOR PATIENTS WITH ADENOID CYSTIC CARCINOMA? - Martin S Palin (presenter), P Sayal, J M Robins, A Yousefpour, J McMahon, T Westin, T A Carroll, Dept of Neurosurgery, Royal Hallamshire Hospital, Glossop Road, Sheffield S10 2JF

Question & Answers

118: INTERNATIONAL COLLABORATIVE VALIDATION OF INTRANEURAL INVASION AS A PROGNOSTIC MARKER IN ADENOID CYSTIC CARCINOMA OF THE HEAD AND NECK - Moran Amit, Yoav Binenbaum, Leonor Trejo-leider, Kanika Sharma, Naomi Ramer, Ilana Ramer, Abib Agbetoba, Brett Miles, Yang Xinjie, Lei Delin, Kristine Bjoerndal, Christian Godballe, Thomas Mücke, Wolff Klaus-Dietrich, André M Eckardt, Chiara Copelli, Enrico Sesenna, Frank Palmer, Snehal Patel, Ziv Gil (presenter), Department of Otolaryngology Rambam Medical Center, Rappaport School of Medicine, the Technion, Israel institute of technology, Haifa, Israel.

119: LEVEL I NECK DISSECTION TECHNIQUES AND IMPLICATIONS FOR SURGERY OF THE SKULL BASE, PARANASAL SINUSES AND SALIVARY GLANDS - Christopher H Rassekh, MD (presenter), Bert W O'Malley, Jr., MD, Gregory S Weinstein, MD, University of Pennsylvania Department of Otorhinolaryngology-Head and Neck Surgery

120: COVERED STENTS FOR TREATMENT AND PREVENTION OF CAROTID BLOWOUT IN HEAD AND NECK CANCER - Brandon G Gaynor, MD (presenter), Charles R Bowie, MD, Diogo C Haussen, MD, Eric C Peterson, MD, Dileep R Yavagal, MD, Mohamed S Elhamady, MD, Mohammad A Sultan, MD, University of Miami

Question & Answers

121: LONG TERM RADIOGRAPHIC PREVALENCE AND MANAGEMENT OF CHRONIC SINUSITIS AFTER ENDOSCOPIC SKULL BASE SURGERY FOR MALIGNANCY - Lauren W Fedore, MD, Satyan Sreenath, MD (presenter), Adam M Zanation, MD, University of North Carolina Department of Otolaryngology/ Head and Neck Surgery

122: ENDOSCOPIC TRANSORBITAL APPROACH FOR NEOPLASM AND OPTIC NERVE DECOMPRESSION - Jared D Ament, MD, MPH (presenter), Jeremy N Ciporen, MD, UC-Davis Medical Center and Kaiser Permanente, Sacramento CA

123: NEUROTROPHIC SPREAD OF MALIGNANCY. CLINICAL ASPECTS AND DIAGNOSTIC OPTIONS - Steven A Newman, MD (presenter), University of Virginia

Question & Answers

PROFFERED PAPER XV: Meningiomas 2/Basic Science (Oral presentations are 8 minutes in length and Q&A sessions are 6 minutes) [Coronado AB](#)
MODERATORS: Peter Batra, MD & Paul Gardner, MD

124: IMPORTANCE OF EPIDURAL MICROSURGICAL WORKING IN SURGERY FOR MEDIAL SPHENOID WING MENINGIOMAS - Yutaka Mine, MD, PhD (presenter), Kazunari Yoshida, MD, PhD, Takeshi Kawase, MD, PhD, Department of Neurosurgery, Keio University School of Medicine

125: ENDONASAL AND LATERAL APPROACHES TO PETROCLIVAL MENINGIOMAS: COMPARISON AND EARLY CLINICAL OUTCOME - Maria Koutourousiou, MD (presenter), Francisco Vaz Guimaraes Filho, MD, John R de Almeida, MD, Eric W Wang, MD, Carl H Snyderman, MD, MBA, Juan C Fernandez-Miranda, MD, Paul A Gardner, MD, Center for Cranial Base Surgery, University of Pittsburgh Medical Center

126: PURELY ENDOSCOPIC RESECTION OF CEREBELLO-PONTINE ANGLE MENINGIOMAS - Pradeep Setty, DO, Kenneth P D'Andrea, DO (presenter), Emily Stucken, MD, Daniel R Pieper, MD, St. John Providence Health System, Michigan State University; Michigan Ear Institute; Oakland University, William Beaumont School of Medicine.

Question & Answers

127: COMPARATIVE PROTEOMIC PROFILING USING TWO-DIMENSIONAL GEL ELECTROPHORESIS AND IDENTIFICATION VIA LC-MS/MS REVEALS PROTEIN BIOMARKERS THAT DISTINGUISH AGGRESSIVE FROM NON-AGGRESSIVE PHENOTYPES OF WHO GRADE I MENINGIOMA - Joshua Osun, MD, Sumanpreet Kaur, MS, Philip D Tatman (presenter), Yousef Yakkikou, MD, PhD, Jake Barnes, BS, John Silber, PhD, Jing Zhang, MD, PhD, Manuel Jr Ferreira, MD, PhD, University of Washington

128: A ROLE FOR MATRIX REMODELING PROTEINS IN INVASIVE AND MALIGNANT MENINGIOMAS - Shahrzad Jalali, PhD, Gelareh Zadeh, MD, PhD (presenter), Labatt's Brain Tumor Research Center, Hospital for Sick Children, University of Toronto; Division of Neurosurgery, Department of Surgery, Toronto Western Hospital

129: COMPARATIVE GENOMIC ANALYSIS OF GRADE 1 AND GRADE 2 MENINGIOMAS IN NEUROFIBROMATOSIS TYPE 2 - Ramita Dewan, BS (presenter), Alexander Pemov, PhD, Abhik Ray-Chaudhury, MD, Ashok R Asthagiri, MD, Settara C Chandrasekharappa, PhD, Douglas R Stewart, MD, Anand V Germanwala, MD, Surgical Neurology Branch, NINDS/NIH, Bethesda, MD; Clinical Genetics Branch, NCI/NIH, Bethesda, MD; Department of Neurosurgery, University of Virginia, Charlottesville, VA; Genome Technology Branch, NHGRI/NIH, Bethesda, MD

Question & Answers

130: GENOME-SCALE PROFILING OF DNA METHYLATION IN SPORADIC PITUITARY MACROADENOMAS: ASSOCIATION WITH TUMOR INVASION AND HISTOPATHOLOGICAL SUBTYPE - Matthew Pease (presenter), Chao Ling, Lingling Shi, PhD, Vasu Punj, PhD, Mark Shiroishi, MD, Deborah Cummins, MD, Dan Weisenberger, MD, Kai Wang, PhD, Gabriel Zada, MD, University of Southern California Keck School of Medicine

131: PREDICTORS OF MENINGIOMA RESPONSE TO STEREOTACTIC RADIOSURGERY AND POST-OPERATIVE COMPLICATIONS - Soroush Larjani, HonBSc (presenter), Alireza Mansouri, MD, Alexandra Kilian, George Kilronomos, MD, PhD, Fred Gentili, MD, Gelareh Zadeh, MD, PhD, Toronto Western Hospital, University Health Network

132: COMPARATIVE PHOSPHO-ENRICHED PROTEOMIC ANALYSIS BETWEEN THE WORLD HEALTH ORGANIZATION GRADES OF MENINGIOMAS: MECHANISMS OF ONCOGENESIS AND EVIDENCE FOR AN AGGRESSIVE GRADE I - Philip D Tatman (presenter), Joshua Osun, MD, Sumanpreet Kaur, MS, Carolina Parada, PhD, Tina Busald, BS, Luis Gonzalez-Cuyar, MD, Donald Born, MD, PhD, Jing Zhang, MD, PhD, Min Shi, PhD, Manuel Jr. Ferreira, MD, PhD, University of Washington

Question & Answers

PROFFERED PAPER XVI: Sellar/Suprasellar/Cavernous Sinus/Microvascular Decompression

Regatta BC

(Oral presentations are 8 minutes in length and Q&A sessions are 6 minutes)

MODERATORS: Chester Griffiths, MD & Christopher Farrell, MD

133: SINONASAL OUTCOMES FOLLOWING PITUITARY SURGERY FOR ACROMEGALY - Kevin A Peng, MD (presenter), Marvin Bergsneider, MD, Marilene B Wang, MD, University of California, Los Angeles

134: MANAGEMENT OF RHINOSINUSITIS IN THE SETTING OF ENDOSCOPIC TRANSSPHENOIDAL SKULL BASE SURGERY - Mark Friedel, MD, Gurston Nyquist, MD (presenter), Seth Kaplan, MD, David Beahm, MD, Saurabh Singhal, MD, Christopher J Farrell, MD, James J Evans, MD, Marc R Rosen, MD, Jefferson University

135: ENDOSCOPIC TRANSPHENOIDAL SURGERY: A TRANSITION TO NEUROSURGERY-ENT COLLABORATION PRODUCING BETTER OUTCOMES - Bharat Guthikonda, MD (presenter), David Connor, DO, Matthew Clavenna, MD, Chiazio Amene, MD, Vikas Mehta, MD, Timothy Lian, MD, Sudheer Ambekar, MD, Anil Nanda, MD, LSU HSC Shreveport

Question & Answers

136: ENDOSCOPIC ENDONASAL SURGERY FOR TUMORS OF THE CAVERNOUS SINUS: EXPERIENCE OF 234 CASES - Maria Koutourousiou, MD (presenter), Francisco Vaz Guimaraes Filho, MD, Juan C Fernandez-Miranda, MD, Eric W Wang, MD, Carl H Snyderman, MD, MBA, Paul A Gardner, MD, Center for Cranial Base Surgery, University of Pittsburgh Medical Center

137: ENDOSCOPIC VERSUS MICROSCOPIC TRANSSPHENOIDAL RESECTION OF SELLAR PATHOLOGIES: NEW AND LEARNING AGAINST THE ADVANCED EXPERT - Jean-Yves Fournier, MD (presenter), Cem Yetimoglu, MD, Heidrun Lange, MD, Jan Abel Tasman, PhD, MD, Gerhard Hildebrand, PhD, MD, Doortje Caroline Engel, PhD, MD, MBA, Departments of Neurosurgery (1) and ENT (2) Cantonal Hospital of St. Gall

Question & Answers

138: NORMAL DIMENSIONS OF THE POSTERIOR PITUITARY BRIGHT SPOT ON MAGNETIC RESONANCE IMAGING - Martin Cote, MD (presenter), Karen L Salzman, MD, Mohammad Sorour, MBBS, William T Couldwell, MD, PhD, University of Utah

139: THE SURGICAL MANAGEMENT OF TRIGEMINAL NEURALGIA: DO WE PRACTICE WHAT WE PREACH? COST-EFFECTIVENESS DETERMINED USING THE MEDICARE CLAIMS DATABASE - Sananthan Sivakanthan (presenter), Jamie Van Gompel, MD, Harry van Loveren, MD, Ren Chen, PhD, Siviero Agazzi, MD, MBA, University of South Florida

140: HEMIFACIAL SPASM: INTRAOPERATIVE IDENTIFICATION FOR ADEQUACY OF MICROVASCULAR DECOMPRESSION - Alexander Trashin, MD (presenter), Yury Shulev, MD, City Hospital #2, North-West State Medical University, Saint-Petersburg, Russia

Question & Answers

6:30 pm – 9:30 pm **President's Reception** (Business Attire)

[Grand Hall D](#)

SUNDAY, FEBRUARY 16, 2014

7:00 am – 8:00 am **BREAKFAST SEMINARS**

BS9: Orbital Tumors

[Coronado AB](#)

MODERATOR: Juri Bilyk, MD

SPEAKERS:

- Philip Custer, MD – *Ophthalmic Complications of Orbital and Skull-Base Surgery*
- Alfio Plva, MD – *Orbital Tumors: A Practical Approach to Its Differential Diagnosis and Surgical Approaches*
- Edward E. Kassel, MD – *Clues to the Unexpected Orbit Tumor*
- Case Presentations & Panel Discussion – All

BS10: Rehabilitation of Cranial Nerves

[America's Cup AB](#)

MODERATOR: Steven Newman, MD – *Rehabilitation of Diplopia and Motility Disturbance*

SPEAKERS:

- Parthasarathy Thirumala, MD – *Cranial Nerve Monitoring During Endoscopic Endonasal Surgeries*
- John Yoo, MD – *Reconstruction of the Paralyzed Face*

BS11: Pearls and Pitfalls in Cranial Base Imaging

[America's Cup CD](#)

MODERATOR: Lawrence Ginsberg, MD

SPEAKERS:

- Claudia Kirsch, MD – *Pearls and Pitfalls in Skull Base Imaging*
- Rita Bhatia, MD – *Imaging Patterns of Skull Base Lesions and Their Mimics*

BS12: Technical Nuances of Nasopharyngectomy

[Regatta BC](#)

MODERATOR: Christopher Rassekh, MD – *Introduction and History of Approaches to Nasopharynx*

SPEAKERS:

- Peter Costantino, MD – *Endoscopic Approaches for Nasopharyngectomy*
- Jimmy Yu Wai Chan, MD – *Open Approaches to the Nasopharynx with Emphasis on the Maxillary Swing and Reconstruction*
- Christopher Rassekh, MD – *Transoral Robotic Nasopharyngectomy*
- Cases and/or Q&A

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

CS17: Factors Influencing Management of Vestibular Schwannomas

[Coronado AB](#)

MODERATOR: Rick Friedman, MD, PhD

SPEAKERS:

- Steven Giannotta, MD – *Cystic Acoustic Neuromas*
- Roberto Cueva, MD – *Factors Influencing Hearing Preservation During Vestibular Schwannoma Surgery*
- Steven Chang, MD – *Single Fraction Versus Multisession Radiosurgery for Vestibular Schwannomas*
- Marc Schwartz, MD – *Preoperative and Intra Operative Decision Making*

CS18: Quality of Life Issues

[America's Cup AB](#)

MODERATOR: Snehal Patel, MD

SPEAKERS:

- Adam Zanation, MD – *Overview of QOL Studies*
- Ziv Gil, MD – *Influence of Treatment Parameters on QOL*
- Andrew Little, MD – *Influence of Nasal Function on QOL*
- Discussion

CS19: Fibrosseous Lesions

America's Cup CD

MODERATOR: Daniel Pieper, MD

SPEAKERS:

- Eric Wang, MD – *Endoscopic Resections of Anterior Skull Base Fibrosseous Lesions*
- Hilda Stambuk, MD – *Imaging Characteristics of Fibro-Osseous Lesions of the Skull Base*
- Steven Newman, MD – *Visual Compromise with Fibro-Osseous Disorders; Quantitative Assessment and Indications for Intervention*

CS20: Functional Pituitary Tumors

Regatta BC

MODERATOR: Gabriel Zada, MD

SPEAKERS:

- Russell Lonser, MD – *Cushing's Disease*
- Edward Laws, MD – *Acromegaly*
- Daniel Kelly, MD – *Prolactinomas*
- Nancy McLaughlin, MD – *Value-Based Pituitary Programs: Essential Components*

9:05 am – 10:00 am **CONCURRENT SESSIONS**

CS21: Adenoid Cystic Carcinoma

America's Cup AB

MODERATOR: Mark Varvares, MD

SPEAKERS:

- Laurie Loevner, MD – *Imaging Patterns of Spread in Adenoid Cystic Carcinoma*
- Ricardo Carrau, MD – *Systematic Review of Surgical Alternatives*
- Clifton D. Fuller, MD, PhD – *Modern Radiotherapy for Adenoid Cystic Carcinoma*
- Diana Bell, MD – *Molecular Characteristics of Adenoid Cystic Carcinoma, With Targeted Therapies Impact*

CS22: Management of Vascular Complications

Coronado AB

MODERATOR: Khaled Aziz, MD

SPEAKERS:

- Harry Van Loveren, MD – *The Neurosurgeon and The Sagittal Sinus: A Dural Tale*
- Paul Gardner, MD – *Internal Carotid Artery Injury During Endoscopic Endonasal Surgery: Incidence and Management*
- Peter Nakaji, MD – *EC-IC Rescue Bypass for Inadvertent Carotid Sacrifice During Endonasal Surgery: Decision-Making and Technique*
- Aaron Dumont, MD – *Endovascular and Microsurgical Strategies for Complication Management in Aneurysm Treatment*

CS23: Temporal Bone Malignancies

America's Cup CD

MODERATOR: Moises Arriaga, MD – *Overview and Staging*

SPEAKERS:

- Randal Weber, MD – *The Head and Neck Surgeon's Role in the Management of Cancer Involving the Temporal Bone*
- Paul Gidley, MD – *Temporal Bone Resection*
- Amir Dehdashti, MD – *The Infratemporal/Intracranial Bypass for Carotid Replacement in Temporal Bone Cancer*

CS24: Emerging Technologies

Regatta BC

MODERATOR: Derrick Lin, MD

SPEAKERS:

- Michael Kupferman, MD – *Role of Robotics in Skull Base Surgery*
- Stacey T. Gray, MD – *Role of Proton Beam Therapy in Skull Base Malignancies*
- Christopher Farrell, MD – *Technical Advances in Endoscopic Skull Base Surgery*
- Eric Sauvageau, MD – *Emerging Technologies in Cerebrovascular/Endovascular Surgery*

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

Coronado CDE

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

Coronado AB

10:30 am: **Skull Base Jeopardy** – MODERATOR: John Golfinos, MD

11:15 am: **Interactive Tumor Board** – MODERATORS: James Evans, MD, Sandeep Samant, MS, FRCS & Sam Marzo, MD

12:15 pm: **Coding/Billing** – Kim Pollock, RN, MBA, CPC, Karen Zupko & Associates, Inc.

12:45 pm

Meeting Adjourned

- 141: FREE MUSCULOCUTANEOUS SUBMENTAL FLAP FOR RECONSTRUCTION OF ANTERIOR SKULL BASE DEFECTS** – Brittany E Howard, MD (presenter), Carrlene B Donald, PAC, Matthew H Rigby, MD, Devyani Lal, MD, Richard E Hayden, MD, Mayo Clinic Arizona
- 142: EXPANDING OUR CONSIDERATIONS IN THE SURGICAL MANAGEMENT OF ANTERIOR SKULL BASE MENINGOCELES** – Iman Naseri, MD (presenter), Melinda Davis-Malesevich, MD, Michael Petr, MD, PhD, Demetri Arnaoutakis, MD, Daryoush Tavanaiepour, MD, University of Florida College of Medicine - Jacksonville
- 143: SOLITARY FIBROUS TUMOR OF THE ORBIT IN CONJUNCTION WITH METASTATIC PROSTATE CANCER** – Vernard S Fennell, MD (presenter), Robert Klein, MD, Lyn Polonski, MD, Michael Lemole, MD, University of Arizona, Division of Neurosurgery
- 144: COMBINED TRANSCRANIAL-MICROSURGICAL AND TRANSNASAL-ENDOSCOPIC “HANDSHAKE APPROACH” - A CONTRIBUTION TO THE MANAGEMENT OF INTRA-EXTRACRANIAL ANTERIOR CRANIAL BASE TUMORS** – Luis Fernando Silva Jr., MD (presenter), Felipe Monteiro, MD, Lucas Aurich, MD, Gustavo Nogueira, MD, Ricardo Ramina, PhD, MSc, MD, Instituto de Neurologia de Curitiba - INC
- 145: NASAL CAVITY MALIGNANCIES INVOLVING THE SKULL BASE: IS THERE A ROLE FOR ENDOSCOPY?** – Amjad N Anaizi, MD (presenter), Sanjeet Grewal, MD, Philip V Theodosopoulos, MD, Lee Zimmer, MD, PhD, Georgetown University Hospital, University of Cincinnati, University of California, San Francisco
- 146: SINGLE PEICE CRANIOORBITOZYGOMATIC OSTEOTOMY WITH TRANS KEY WHOLE ORBITAL OSTEOTOMY A SURGICAL MODIFICATION** – Mohamed A M Ismail, MD, MRCS (presenter), Aln Shams university. Faculty of medicine. Neurosurgery department.. EGYPT
- 147: CLIVAL CHORDOMA AND SELLAR-SUPRASELLAR GERMINOMA IN A PEDIATRIC PATIENT: A REVIEW AND 1 CASE REPORT** – Hesham Soliman, MD, David Beahm, MD, Kathy Newell, MD, Roukoz Chamoun, MD (presenter), Department of Neurosurgery, Kansas University
- 148: ASSOCIATION BETWEEN ACROMEGALY AND CHORDOMAS OF THE SKULL BASE. CASE REPORT AND REVIEW OF THE LITERATURE** – Óscar Feo Lee, MD (presenter), Juan Carlos Acevedo G, MD, Roberto Díaz O, MD, Miguel Berbeo C, MD, Óscar Zorro G, MD, Rafael Uribe C, MD, Juan Carlos Pérez R, MD, Laura Díaz S, MD, Jaime Eduardo Becerra, MD, Tatiana Quintero O, MD, Pablo Harker F, MD, Hospital universitario San Ignacio - Universidad Javeriana - Bogotá Colombia
- 149: “A PURE ENDOSCOPIC TRANSPTERIONAL APROACH (ETA): CADAVERIC FEASIBILITY STUDY AND REPORT OF ONE CLINICAL CASE”.** – Amancio Guerrero Maldonado, MD (presenter), Sirajeddin Belkhair, MHSC, MD, FRCSC, Michael Tymianski, MD, PhD, FRCSC, Ivan Radovanovic, MD, PhD, División of Neurosurgery, Toronto Western Hospital, University Health Network and University of Toronto, Toronto, Ontario Canada.
- 150: IATROGENIC MUCOSAL INJURY DURING ENDOSCOPIC ENDONASAL SKULL BASE SURGERY** – James K Byrd, MD, Eric W Wang, MD, Juan C Fernandez-Miranda, MD, Paul A Gardner, MD, Carl H Snyderman, MD, MBA (presenter), University of Pittsburgh Medical Center
- 151: COMPARISON BETWEEN THE CLASSIC ENDONASAL ENDOSCOPICAL TRANSCRIBIFORM APPROACH FOR THE OLFATORY GROVE MENINGIOMAS VS. A PERICRIBIFORM “ACCORDION” TECHNIQUE USING A TUMOR MODEL IN CADAVER SPECIMENS** – Cristian A Naudy, MD (presenter), Daniel M Prevedello, MD, Matteo Zoli, MD, Nicolas Gil, MD, Bradley A Otto, MD, Facundo Van Isseldyk, MD, Leo F Ditzel, MD, Kenichi Oyama, MD, Jun Muto, MD, Ricardo L Carrau, MD, Edward Kerr, MD, ALT-VISION Laboratory - Ohio State University - Wexner Medical Center
- 152: COMPARATIVE ANALYSIS OF APPROACHES TO THE INFRATEMPORAL FOSSA: FISCH TYPE-C VERSUS EXPANDED ENDONASAL APPROACH** – Jose G Gurrola II, MD (presenter), Eric Mason, Camilo Reyes, MD, C Arturo Solares, MD, Georgia Regents University, Universidad del Rosario; Bogota, Columbia
- 153: OLFACTION PRESERVATION IN OLFATORY GROVE MENINGIOMAS OPERATED WITH ENDONASAL ENDOSCOPICAL TECHNIQUE. A PROPOSAL OF A NEW SURGICAL CORRIDOR TROUGH A CADAVERIC STUDY** – Cristian Naudy, MD (presenter), Daniel Prevedello, MD, Bradley A Otto, MD, Matteo Zoli, MD, Nicolas Gil, MD, Jun Muto, MD, Kenichi Oyama, MD, Leo F Ditzel, MD, Ricardo L Carrau, MD, ALT-VISION Laboratory - Ohio State University - Wexner Medical Center
- 154: MORPHOMETRIC AND CLINICAL ANALYSIS OF THE “1.5 APPROACH” - A NOVEL APPROACH TO THE SPHENOID SINUS WITH PRESERVATION OF NASOSEPTAL FLAP** – H G Garcia, MD (presenter), M Pyfer, BS, S J Singhal, MD, M L Otten, MD, A M Iloreta, MD, C J Farrell, MD, G G Nyquist, MD, M R Rosen, MD, J J Evans, MD, Department of Neurological Surgery and Otolaryngology, Thomas Jefferson University Hospital, Philadelphia, Pennsylvania
- 155: LANDMARKS FOR ENDOSCOPIC APPROACH TO PARAPHARYNGEAL INTERNAL CAROTID ARTERY** – Brian Ho, MD (presenter), Clementino A Solares, MD, David Jang, MD, Ricardo Carrau, MD, Ramon Figueroa, MD, Jason Van Rompey, MD, Georgia Regents University, Duke University, Ohio State University

- 156: ENDOSCOPIC AND OPEN SURGICAL TECHNIQUES COMBINED WITH RADIATION AND CHEMOTHERAPY IN THE TREATMENT OF SINONASAL UNDIFFERENTIATED CARCINOMA (SNUC)** – Rachel Myers, Valerie A Wood, MD (presenter), Ossama Tawfik, MD, PhD, Paul Camarata, MD, Terence Tsue, MD, FACS, Larry Hoover, MD, FACS, University of Kansas Medical Center
- 157: PERI-OPERATIVE MI AFTER INTRANASAL APPLICATION OF COCAINE FOR TRANSNASAL PROCEDURE** – Sam A Spinowitz, BA (presenter), Brendan Obrien, MD, Matthew C Miller, MD, G. E Vates, MD, Departments of Neurosurgery and Otolaryngology - Head and Neck Surgery, University of Rochester Medical Center, University of Rochester School of Medicine and Dentistry
- 158: ENDOSCOPIC VERSUS OPEN APPROACH TO THE INFRATEMPORAL FOSSA** – Ahmed S Youssef, MD, MRCS (presenter), 1- Department Of Otolaryngology-Head and Neck Surgery, Ohio State University Wexner Medical Center, USA. 2- Department of Otolaryngology-Head and Neck Surgery, Alexandria University, Egypt.
- 159: COMPARISON ANTERIOR TRANSPETROSAL APPROACH WITH ENDONASAL ENDOSCOPIC APPROACH TO THE PETROSAL APEX LESION** – Jun Muto, MD (presenter), Ditzel Fiho, MD, Kenichi Oyama, MD, Facundo Van, MD, Cristian Naudy, MD, Daniel GoncalvesdeSouza, MD, Matteo Zoli, MD, Ali Jamshidi, MD, Edward Kerr, MD, Bradley A Otto, MD, Ricardo L Carrau, MD, Daniel M Prevedello, MD, Department of Neurosurgical surgery, Ohio state university
- 160: IMMEDIATE COMPLICATIONS ASSOCIATED WITH HIGH FLOW CEREBROSPINAL FLUID EGRESS DURING ENDOSCOPIC ENDONASAL SKULL BASE SURGERY** – Edward E Kerr, MD (presenter), Leo F Ditzel Filho, MD, Ali Jamshidi, MD, Bradley A Otto, MD, Ricardo L Carrau, MD, Daniel M Prevedello, MD, The Ohio State University Wexner Medical Center Department of Neurological Surgery
- 161: THE KEYHOLE RETROSIGMOID APPROACH TO THE CPA: TECHNIQUE AND RESULTS** – Badr E Mostafa, Professor (presenter), Mohammed K El Sharnoubi, Dr, Ain-Shams University Faculty of Medicine
- 162: UNINOSTRIL ENDONASAL ENDOSCOPIC MANAGEMENT OF PITUITARY ADENOMAS** – Sam Safavi-Abbasi, MD, PhD (presenter), Nathan L Pratt, Adrian J Maurer, MD, Jose A Sanclement, MD, Jonea Lim, MD, Michael E Sughrue, MD, Departments Of Neurosurgery, Otolaryngology and Endocrinology University of Oklahoma
- 163: ENDOSCOPIC ENDONASAL MANAGEMENT OF ESTHESIONEUROBLASTOMA** – Jeremy Lewis, MD (presenter), Samuel Barnett, MD, University of Texas at Southwestern
- 164: VALIDATION OF A CHICKEN WING TRAINING MODEL FOR ENDOSCOPIC MICROSURGICAL DISSECTION** – Daniel J Kaplan (presenter), Francisco Vaz Guimaraes Filho, MD, Juan C Fernandez-Miranda, MD, Carl Snyderman, MD, MBA, University of Pittsburgh School of Medicine, University of Pittsburgh Medical Center
- 165: ENDONASAL ANTERIOR SKULL BASE SURGERY: PATHOLOGIES, RESULTS, AND COMPLICATIONS** – Wenya Linda Bi, MD, PhD (presenter), Ian F Dunn, MD, Peleg Horowitz, MD, PhD, Edward R Laws, Jr, MD, FACS, Department of Neurosurgery, Brigham and Women's Hospital
- 166: EXPANDED ENDOSCOPIC ENDONASAL TREATMENT OF PRIMARY INTRACRANIAL TUMORS WITHIN THE PARANASAL SINUSES** – Zarina S Ali, MD (presenter), Shih-Shan Lang, MD, Nithin D Adappa, MD, Ariana Barkley, BS, James N Palmer, MD, John Y K Lee, MD, University of Pennsylvania
- 167: ENDOSCOPIC-ASSISTED MICROSURGICAL TECHNIQUES AT THE CRANIOVERTEBRAL JUNCTION: A SYSTEMATIC REVIEW WITH ILLUSTRATIVE CASES** – Silky Chotai (presenter), Varun R Kshetry, Mario Ammirati, Dardinger Skull Base Laboratory, Department of Neurological Surgery, Ohio State University Medical Center, Columbus, OH, USA
- 168: ENDOSCOPIC RESECTION OF A GIANT INTRADURAL RETROCLIVAL ECCHORDOSIS PHYSALIPHORA** – Omar Choudhri, MD (presenter), Abdullah Feroze, BS, Peter Hwang, MD, Hannes Vogel, MD, Griffith Harsh, MD, Stanford University Medical Center
- 169: RECONSTRUCTION OF THE ANTERIOR WALL OF THE SPHENOID SINUS WITH A COMPOSITE OSTEOMUCOSAL MIDDLE TURBinate PEDICLED FLAP** – Mark Toma, MD (presenter), Robert D Engle, MD, Maria Peris-Celda, MD, PhD, Tyler J Kenning, MD, Carlos D Pinheiro-Neto, MD, PhD, Albany Medical College, Albany, New York
- 170: MINIMALLY INVASIVE ENDOSCOPY-ASSISTED APPROACH FOR EN BLOC RESECTION OF SEPTAL TUMORS** – Anuraag Parikh, MD (presenter), Justin C Cohen, MD, Monica Tadros, MD, Rahmatullah Rahmati, MD, Columbia University College of Physicians and Surgeons, Columbia University Medical Center
- 171: MEDIAL AND SUPERIOR ORBITAL DECOMPRESSION: IMPROVING ACCESS IN ENDONASAL ENDOSCOPIC LATERAL FRONTAL SINUS SURGERY** – Pavel Poczoz, MD (presenter), Almaz Kurbanov, MD, Jeffrey T Keller, PhD, Lee A Zimmer, MD, PhD, University of Cincinnati Medical Center
- 172: SALPHINGOPHARYNGEUS MUSCLE FLAP: A NOVEL PEDICLED RECONSTRUCTIVE FLAP** – Ramazan Gun(1), MD (presenter), Kenichi Oyama(2), MD, Yusuf B Kapucu(1), MD, Abdulazaiz AlQathani(1), MD, Daniel Prevedello(2), MD, Ricardo Carrau(1), MD, Departments of Otolaryngology (1) and Neurosurgery(2), The Ohio State University
- 173: CYSTO-SPHENOID STENTING FOR RATHKE'S CLEFT CYSTS** – James K Byrd, MD (presenter), Juan C Fernandez-Miranda, MD, Eric W Wang, MD, Paul A Gardner, MD, Carl H Snyderman, MD, MBA, University of Pittsburgh Medical Center

- 174: ANATOMIC AND COMPUTED TOMOGRAPHIC ANALYSIS OF THE PETROUS PORTION OF THE INTERNAL CAROTID ARTERY: LANDMARKS FOR AN ENDOSCOPIC ENDONASAL APPROACH** – Eric Mason, BS (presenter), José Gurrola II, MD, Camilo Reyes, MD, C. Arturo Solares, MD, Department of Otolaryngology, Center for Cranial Base Surgery, Georgia Regents University
- 175: ENDOSCOPIC TRANSNASAL TRANSPHENOIDAL RESECTION OF LEFT TEMPORAL ENCEPHALOCELE RESULTING IN DRAMATIC REDUCTION IN SEIZURE FREQUENCY** – Selma Z Kominek, MD, MPH, Department, of, Neurosurgery (presenter), Deanna M Sasaki-Adams, MD, Department, of, Neurosurgery, Adam M Zanation, MD, Department, of, Otolaryngology, Hae Won Shin, MD, Department, of, Neurology, Fisher L Tiffany, MD, Department, of, Neurology, UNC Chapel Hill
- 176: SOLITARY FIBROUS TUMOR, HAEMANGIOPERYCITOMA AND SARCOMATOUS DEGENERATION IN THE SAME PATIENT. CASE REPORT** – Óscar Feo Lee, MD (presenter), Juan Carlos Acevedo González, MD, Roberto Díaz Orduz, MD, Miguel Berbeo Calderón, MD, Óscar Zorro Guío, MD, Laura Díaz S, MD, Rafael Uribe C, MD, Jaime Becerra O, MD, Silvia Quintero O, MD, Juan Pérez R, MD, Pablo Harker F, MD, Hospital universitario San Ignacio, Pontificia Universidad Javeriana.
- 177: SUPRACEREBELLAR TRANS-TENTORIAL APPROACH FOR LESIONS IN THE POSTERIOR TEMPORO-MESIAL REGION** – Michel W Bojanowski, MD, FRCSC (presenter), Hossam Al Jehany, MD, FRCSC, Elsa Magro, MD, Chiraz Chaalala, MD, Jean-Yves Fournier, MD, Division of Neurosurgery, Centre Hospitalier de l'Université de Montréal, Montréal, Canada
- 178: A COMPARISON BETWEEN THE KAWASE'S AND EXTENDED RETROSIGMOID APPROACHES (RETROSIGMOID TRANSTENTORIAL AND RETROSIGMOID INTRADURAL SUPRAMEATAL APPROACHES) FOR ACCESSING THE PETROCLIVAL TUMORS. A CADAVERIC STUDY** – Mayur Sharma, Sudheer Ambekar (presenter), Bharat Guthikonda, Anil Nanda, Louisiana State University Health Sciences Center, Shreveport
- 179: AN ATYPICAL PRESENTATION OF CHRONIC INVASIVE FUNGAL RHINOSINUSITIS WITH SKULL BASE EXTENSION TREATED EXCLUSIVELY WITH ANTIFUNGAL THERAPY** – Sam A Spinowitz, BA (presenter), Eric B Hintz, MD, Matthew C Miller, MD, G. E Vates, MD, PhD, Departments of Neurosurgery and Otolaryngology – Head and Neck Surgery, University of Rochester Medical Center, University of Rochester School of Medicine and Dentistry
- 180: SPHENOID SINUS FUNGUS BALLS PRESENTING WITH SKULL BASE EROSION AND ASSOCIATED COMPLICATIONS: A CASE SERIES** – Josh C Meier, MD (presenter), Aaron K Remenschneider, MD, MPH, Kyle Chambers, MD, Matt Dedmon, MD, PhD, Derrick T Lin, MD, Eric H Holbrook, MD, Ralph Metson, MD, Stacey T Gray, MD, Massachusetts Eye and Ear Infirmary
- 181: A NOVEL METHOD FOR MULTILAYER AUTOGRAFT PLACEMENT DURING MIDDLE CRANIAL FOSSA ENCEPHALOCELE AND CSF LEAK REPAIR: THE SUTURE PULL-THROUGH TECHNIQUE** – Alex D Sweeney, MD (presenter), Matthew L Carlson, MD, David S Haynes, MD, George B Wana, MD, Marc L Bennett, MD, Alejandro Rivas, MD, Department of Otolaryngology-Head and Neck Surgery, Department of Neurologic Surgery, Vanderbilt University Medical Center
- 182: PERILS OF ANTI-COAGULATION AFTER INTRACRANIAL SURGERY** – Suresh B Velagapudi, MS, DNB, FRCS (presenter), Mohammad Saleem, FRCS, King Faisal Specialist Hospital and Research centre
- 183: RARE CASE OF SKULL BASE INFANTILE HEMANGIOPERICYTOMA IN 4 YEAR-OLD MALE** – Selma Z Kominek, MD, MPH, Department, of, Neurosurgery (presenter), Deanna M Sasaki-Adams, MD, Department, of, Neurosurgery, Craig A Buchman, MD, Department, of, Otolaryngology, University of North Carolina Hospitals
- 184: INTRAOPERATIVE MRI CHANGES IN CERVICO-THORACIC SYRINX AFTER ODONTOIDECTOMY FOR BASILAR IMPRESSION** – Pablo F Recinos, MD (presenter), Anubhay G Amin, MD, Yuki Otano, Ziya L Gokaslan, MD, Jean-Paul Wolinsky, MD, Johns Hopkins Hospital
- 185: QUALITY OF SKULL BASE DURA, HEALING - PITFALL AND PEARLS DURING RECONSTRUCTION OF SKULL BASE DURA AND THE BIOMECHANIC QUALITY OF DURA MATER CORRELATING HISTOLOGY 3D-FINDINGS AND REVIEW OF MELVIN STUDY** – Jan Hemza, MD, PhD, et, PhD (presenter), Faculty Hospital at saint Ann, Pekarska 53, Brno, C.R.
- 186: FIBRIN GLUE INJECTION FOR CAVERNOUS SINUS HEMOSTASIS ASSOCIATED WITH CRANIAL NERVE DEFICIT: A CASE REPORT** – Daryoush Tavanaiepour, MD (presenter), Ossama Al-Mefty, MD, University of Florida College of Medicine, Jacksonville and Harvard Medical School, Boston.
- 187: THIRD VENTRICULAR GLIOBLASTOMA MULTIFORME: CASE REPORT & LITERATURE REVIEW** – Omid R Hariri, DO, MSc (presenter), Saman Farr, MSc, Casey Corsino, BSc, Andrew Bieber, DO, Javed Siddiqi, MD, PhD, Arrowhead Regional Medical Center, Kaiser Permanente Fontana Medical Center, Desert Regional Medical Center, Riverside County Regional Medical Center, Neurosurgery Interest Society
- 188: ANTIBIOTICS IN THE MANAGEMENT OF NON-OPERATIVE MIDFACE FRACTURES** – Mark S Toma, MD (presenter), Julian J Felder, BS, Daniel T Cronin, BA, Ashit Patel, MD, Carlos D Pinheiro-Neto, MD, PhD, Albany Medical Center Division of Otolaryngology Head and Neck Surgery
- 189: USE OF AN ULTRASONIC OSTEOTOME FOR ORBITOZYGOMATIC CRANIOTOMIES** – Jacob J Ruzevick, BS (presenter), Pablo F Recinos, MD, Shaan M Raza, MD, Kaisorn L Chaichana, MD, Gustavo Pradilla, MD, Alessandro Olivi, MD, Gary L Gallia, MD, PhD, Jon D Weingart, MD, Alfredo Quinones-Hinojosa, MD, Michael Lim, MD, The Johns Hopkins University School of Medicine, Department of Neurosurgery

- 190: MICROSURGICAL AND ENDOSCOPIC TRAINING MODEL WITH NONLIVING SWINE HEAD: NEW ALTERNATIVE FOR SKULL BASE EDUCATION** – Luis Fernando Silva Jr., MD (presenter), Lucas Aurich, MD, Felipe Monteiro, MD, Lucas Zambon, MD, Gustavo Nogueira, MD, Ricardo Ramina, PhD, MSc, MD, Instituto de Neurologia de Curitiba - INC
- 191: EXTENSION OF ACUTE INVASIVE FUNGAL DISEASE THROUGH VIDIAN ARTERY MAY BE CAUSE OF INTERNAL CAROTID ARTERY THROMBOSIS** – Sharon Gnagi, MD, Joseph Hoxworth, MD, Dora Lam-Himlin, MD, Devyani Lal, MD (presenter), Mayo Clinic, Phoenix, Arizona
- 192: TREATMENT OF SEVERE INTRACRANIAL EXTENSION OF FRONTAL SINUSITIS: CASE REPORT AND REVIEW OF THE LITERATURE** – Mark S Toma, MD (presenter), Robert D Engle, MD, John C Dalfino, MD, Carlos D Pinheiro-Neto, MD, PhD, Tyler J Kenning, MD, Albany Medical Center
- 193: DRAF IIB AND III FRONTAL SINUSOTOMY IN CYSTIC FIBROSIS PATIENTS** – Robert D Engle, MD (presenter), Gregory S Neel, BS, Jonathan Rosen, MD, Tyler J Kenning, MD, Carlos D Pinheiro-Neto, MD, PhD, Albany Medical Center
- 194: JUVENILE XANTHOGRANULOMA OF THE CLIVUS** – Kevin A Peng, MD (presenter), Ashley E Kita, BS, Marvin Bergsneider, MD, Marilene B Wang, MD, University of California, Los Angeles
- 195: RETROSPECTIVE CASE SERIES OF INFLAMMATORY PSEUDOTUMOR OF THE SKULL BASE** – Tiffany A Glazer, MD (presenter), Erin L McKean, MD, Lawrence J Marentette, MD, The Department of Otolaryngology, University of Michigan Health System, Ann Arbor, Michigan, USA
- 196: TARGETABLE PATHWAY GENOME SEQUENCING FOR A SINONASAL TERATOCARCINOSARCOMA AND XENOGRFT CHEMOTHERAPEUTIC TESTING FOR PERSONALIZED MEDICINE** – Erin L McKean, MD, MBA (presenter), Sarah Burgin, MD, Stephen E Sullivan, MD, Jacques Nor, PhD, Chad Brenner, PhD, University of Michigan
- 197: SKULL BASE LYMPHOMA: RADIOGRAPHIC PRESENTATION AND SURGICAL MANAGEMENT** – Ali O Jamshidi, MD (presenter), Edward E Kerr, MD, Daniel M Prevedello, MD, Ricardo L Carrau, MD, Bradley A Otto, MD, Leo F Ditzel Filho, MD, The Ohio State University Wexner Medical Center, Department of Neurological Surgery
- 198: METASTATIC PROSTATE CANCER OF THE SKULL BASE AND PARANASAL SINUSES** – Jessica Somerville, MD (presenter), Courtney Shires, MD, Glenn B Williams, MD, University of Tennessee
- 199: MINIMALLY INVASIVE APPROACHES FOR RESECTION OF PARAMENINGEAL RHABDOMYOSARCOMAS** – Brittny N Tillman, MD (presenter), Andrew D Kroeker, MD, Jennifer V Brinkmeier, MD, Erin L McKean, MD, The Department of Otolaryngology, University of Michigan Health System, Ann Arbor, Michigan, U.S.A.
- 200: A RARE CASE OF HYALINIZING CLEAR CELL CARCINOMA PRESENTING IN THE NASOPHARYNX** – Selwan B Abdullah, BS, Phillip Lee, BA, Yael Smiley, BS, Heather Weinreich, MD, Emiro Caicedo-Granados, MD (presenter), University of Minnesota. Department of Otolaryngology, Head and Neck Surgery
- 201: WHOLE GENOME EXPRESSION PROFILING OF EPITHELIAL-MYOEPITHELIAL CARCINOMA OF SALIVARY GLANDS** – Achim Bell, PhD, Ehab Hanna, MD, FACS, Kenneth Aldape, MD, PhD, Isabelle Fonseca, MD, Diana Bell, MD (presenter), MD Anderson Cancer Center
- 202: RAS MUTATIONS COEXIST WITH PIK3CA AND MET MUTATIONS IN LACRIMAL GLAND EPITHELIAL NEOPLASMS** – Diana Bell, md (presenter), Matthew Sniegowski, md, Khalida Wani, phd, Kenneth Aldape, md, phd, Bitia Esmaeli, md, MD Anderson Cancer Center
- 203: METASTATIC BREAST CARCINOMA OF THE JUGULAR FORAMEN: A RARE CAUSE OF VILLARET'S SYNDROME** – Jeremiah C Tracy, MD (presenter), Carl B Heilman, MD, Miriam A O'Leary, MD, Tufts Medical Center
- 204: RADIOFREQUENCY IN REMOVAL OF JUVENILE NASAL ANGIOFIBROMAS** – Suresh B Velagapudi, MS, DNB, FRCS (presenter), Michael Timms, FRCS, King Faisal Specialist Hospital & Research Center
- 205: SKULL BASE ADENOID CYSTIC CARCINOMA – CLINICAL SERIES AND OUTCOMES** – Rahul Mehta, MD, FRCS (presenter), Samuel Spear, MD, Yu-Lan Mary Ying, MD, Moises A Arriaga, MD, MBA, FACS, Daniel W Nuss, MD, FACS, Our Lady Of Lake Region Medical Center/LSUHSC New Orleans
- 206: CRISPS - AN EASY ACRONYM TO INTERPRETING METASTATIC NECK LYMPHADENOPATHY** – Adam A Dmytriw, MSc (presenter), Ahmed El Beltagi, MD, Eric S Bartlett, MD, MPH, Arjun Sahgal, MD, Colin S Poon, MD, PhD, Girish Fatterpekar, MBBS, Reza Forghani, MD, PhD, Eugene Yu, MD, University Health Network, Toronto; Al Sabah Hospital, Kuwait; University of Chicago, Chicago; New York University, New York; McGill University, Montreal
- 207: TUMOR MODEL FOR ENDOSCOPIC ENDONASAL MICROSURGICAL SIMULATION: A STEP-BY-STEP GUIDE** – Facundo M Van Isseldyk, MD, Kenichi Oyama, MD, Cristian Naudy, MD (presenter), Leo F Ditzel, MD, Bradley A Otto, MD, Ricardo L Carrau, MD, Daniel M Prevedello, MD, Gustavo Hadad, MD, ALT-VISION Laboratory - Ohio State University - Wexner Medical Center
- 208: PAPERLESS VALUE: UTILIZATION OF TECHNOLOGY TO MAXIMIZE ROUNDING EFFICIENCY, TEAM COMMUNICATION, AND PATIENT SAFETY** – Allan D Nanney, III, MD (presenter), Timothy R Smith, MD, PhD, MPH, James P Chandler, MD, George Cybulski, MD, Akshar Rambachan, Andrew T Parsa, MD, PhD, Northwestern University-McGaw Medical Center, Feinberg School of Medicine

- 209: ACELLULAR FETAL BOVINE DERMAL MATRIX IN PEDIATRIC SKULL BASE RECONSTRUCTION: INITIAL REPORT** – Jeremiah C Tracy, MD (presenter), Jonathon S Sillman, MD, Mark A Vecchiotti, MD, Andrew R Scott, MD, Tufts Medical Center
- 210: DIRECT TUMOR EMBOLIZATION OF SINONASAL UNCLASSIFIED SPINDLE CELL SARCOMA** – Prateek Srinet, MD (presenter), R P Manes, MD, K R Bulsara, MD, Yale New Haven Hospital, Yale University School of Medicine, New Haven, CT
- 211: FEASIBILITY OF USING INTRAOPERATIVE MAGNETIC RESONANCING IMAGING FOR ENDOSCOPIC TRANSCERVICAL ODONTOIDECTOMY** – Pablo F Recinos, MD (presenter), Anubhay G Amin, MD, Jordina Rincón-Torroella, MD, Yuki Otano, Ziya L Gokaslan, MD, Jean-Paul Wolinsky, MD, Johns Hopkins Hospital
- 212: QUANTITATIVE ANALYSIS OF “KAWASE’S TRIANGLE” VERSUS “MODIFIED ANTERIOR PETROSECTOMY (MAP) RHOMBOID” APPROACH FOR EXTENDED MIDDLE CRANIAL FOSSA LESIONS EXTENDING INTO POSTERIOR CRANIAL FOSSA** – Manjul Tripathi, MS, MCh (presenter), Rama C Deo, MS, MCh, Ashish Suri, MS, MCh, Tara S Roy, MD, Sanjeev Lalwani, MD, Britty Baby, MTech, Vinkle K Srivastav, BTech, Subhasish Banerjee, PhD, Prem Kalra, PhD, Sanjiva Prasad, PhD, Kolin Paul, PhD, Subodh Kumar, PhD, Department of Neurosurgery*, Anatomy and Forensic Medicine+, All India Institute of Medical Sciences, New Delhi Department of Computer Science Engineering#, Indian Institute of Technology Delhi
- 213: VOLUMETRIC ANALYSIS OF ENDOSCOPIC AND TRADITIONAL SURGICAL APPROACHES TO THE INFRATEMPORAL FOSSA** – Carol Fahmy (presenter), Ricardo L Carrau, MD, Claudia Kirsch, MD, Darlene Meeks, MD, Danielle de Lara, MD, C. Arturo Solares, MD, Bradley A Otto, MD, Daniel M Prevedello, MD, The Ohio State University Wexner Medical Center
- 214: VOLUMETRIC ANALYSIS OF A NASOPHARYNGECTOMY PERFORMED VIA ENDOSCOPIC, MAXILLARY TRANSPOSITION AND LATERAL TEMPORAL-SUBTEMPORAL APPROACHES** – Burak Kapucu, MD, Ramazan Gun, MD, Claudia Kirsch, MD, Darlene Meeks, Bradley A Otto, MD, Daniel M Prevedello, MD, Ricardo L Carrau, MD (presenter), The Ohio State University Medical Center
- 215: AN ALTERNATIVE WAY OF LEARNING INTRANASAL PEDICLED FLAP: CORRELATION OF 3D ANATOMY MODELS AND SURGICAL TECHNIQUES WITH RADIOGRAPHIC IMAGES AND CASE STUDIES** – Ing Ping Tang, MD, Pornthep Kasemsiri, MD, Bradley Otto, MD, Daniel M Prevedello, MD, Ricardo L Carrau, MD (presenter), Claudia Kirsch, MD, University of Malaysia, Kuala Lumpur; Wexner Medical Center, The Ohio State University
- 216: ATTICOSTOMY- A NEW APPROACH TO EPITYMPANIC TUMORS** – Suresh C Sharma, Prof (presenter), All India Institute of Medical Sciences, New Delhi, INDIA
- 217: RADIOLOGIC CLASSIFICATION OF CONVEXITY MENINGIOMA TO PREDICT THE AGGRESSIVE MENINGIOMA BEHAVIOR** – Silky Chotai (presenter), Liu Yi, Pan Jun, Songtao Qi, Department of Neurosurgery, Nanfang Hospital of Southern Medical University, Guangzhou, China
- 218: MANAGEMENT OF A GIANT INTRAVENTRICULAR MENINGIOMA WITH A MINIMALLY INVASIVE PORT TECHNIQUE: CASE REPORT AND REVIEW OF INTRAVENTRICULAR PATHOLOGIES** – Ali O Jamshidi, MD (presenter), Daniel Goncalves de Souza, MD, Edward E Kerr, MD, Leo F Ditzel Filho, MD, Daniel M Prevedello, MD, The Ohio State University Wexner Medical Center
- 219: THE GRADE 1.5 MENINGIOMA: CLINICAL CHARACTERISTICS OF AN AGGRESSIVE SUBSET OF TYPICALLY BENIGN WHO GRADE I TUMORS** – Joshua Osbun, MD, Owais Ahmad, BS, Philip D Tatman (presenter), Jakes Barnes, BS, Manuel Jr Ferreira, MD, PhD, University of Washington
- 220: INTRACRANIAL ARTERIOVENOUS MALFORMATION EMBEDDED IN A MENINGIOMA – CASE REPORT AND REVIEW OF THE LITERATURE** – Moujahed Labidi, MD (presenter), Genevieve Lapointe, MD, FRCSC, CHU de Quebec - Hopital de l’Enfant-Jesus
- 221: SURGERY OF LARGE AND GIANT PETROCLIVAL REGION TUMORS WITH MIDDLE FOSSA EXTENSION** – Yury Shulev, MD (presenter), Ovanes Akobyan, MD, Alexander Trashin, MD, City Hospital # 2, North-West State Medical University, Saint-Petersburg, Russia
- 222: MANAGEMENT OF PETROCLIVAL MENINGIOMAS: A REVIEW OF THE DEVELOPMENT OF MANAGEMENT STRATEGIES** – Sam Safavi-Abbasi, MD, PhD (presenter), Adrian J Maurer, MD, Ahmed A Cheema, MD, Michael E Sughrue, MD, University of Oklahoma Health Science Center
- 223: UNILATERAL VOCAL CORD PALSY AND DYSPHAGIA: A RARE CEREBELLO-PONTINE ANGLE MENINGIOMA AND ITS MANAGEMENT** – Andrew Senior, Dr (presenter), James Douglas, Mr, Stuart D Thompson, Mr, Princess Royal Hospital, Telford, Shropshire, UK
- 224: SURGICAL NUANCES OF MICROSURGICAL KEYHOLE AND ENDONASAL ENDOSCOPIC APPROACHES FOR MANAGEMENT OF INTRACRANIAL MENINGIOMAS** – Sam Safavi-Abbasi, MD, PhD (presenter), Adrian J Maurer, MD, Jacob B Archer, Michael E Sughrue, MD, Department Of Neurosurgery, University Of Oklahoma Medical Center
- 225: SINUSITIS AFTER ENDOSCOPIC TRANSSPHENOIDAL PITUITARY SURGERY: IS PRE-OPERATIVE CT IMAGING PREDICTIVE OF POST-OPERATIVE SINONASAL DISEASE?** – Michael C Topf (presenter), Caitlin C McLean, Matthew C Miller, George E Vates, University of Rochester Department of Otolaryngology

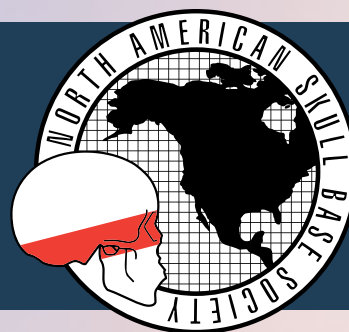
- 226: PARASELLAR XANTHOGRANULOMAS: A CASE REPORT** – Angela Donaldson, MD (presenter), Vijay Anand, MD, Redi Rahmani, BA, Madhav Sukumaran, BS, Ehud Lavi, MD, Theodore Schwart, MD, Weill Cornell Medical College
- 227: THIRD VENTRICULAR GLIOBLASTOMA MULTIFORME: CASE REPORT AND LITERATURE REVIEW** – Omid R Hariri, DO, MSc (presenter), Saman Farr, MSc, MSIII, Casey Corsino, MSII, Andrew Bieber, DO, Arrowhead Regional Medical Center, Dept. of Neurosurgery
- 228: SUB-TEMPORAL APPROACH TO SUPRASELLAR RETROCHIASMATIC TUMORS: CASE SERIES AND ANATOMIC CADAVERIC CORRELATION** – Puya Alikhani, MD (presenter), Kenneth De Los Reyes, MD, Sananthan Sivakanthan, BS, Jamie J Van Gompel, MD, Harry R Van Loveren, MD, Sivero Agazzi, MD, MBA, University of South Florida, Tampa, Florida, Mayo Clinic, Rochester, Minnesota
- 229: ENDONASAL TRANSPHENOIDAL PITUITARY SURGERY: INSTITUTIONAL REVIEW OF INITIAL EXPERIENCE.** – Bakhtiyar Pashaev, MD (presenter), Valery Danilov, MD, Gulnar Vagapova, MD, Vladimir Bochkarev, MD, Farida Nasibullina, MD, Andrey Alekseev, MD, Department of Neurosurgery, Interregional Clinical Diagnostic Center, Kazan. Kazan Medical State University, Kazan Medical State Academy, Russian Federation.
- 230: ENDOSCOPIC TRANSPHENOIDAL SURGERY: RETROSPECTIVE ANALYSIS OF PATIENTS WITH A KNOWN HISTORY OF ACROMEGALY** – Oscar Feo, MD (presenter), Hospital Universitario San Ignacio - Pontificia Universidad Javeriana
- 231: FIRST REPORTED CASE OF SUNCT SYNDROME RESOLVED BY RESECTION OF PITUITARY TUMOR IN PEDIATRIC PATIENT** – H G Garcia, MD (presenter), S Gottlieb, MD, M R Rosen, MD, J J Evans, MD, Department of Neurological Surgery and Otolaryngology, Head and Neck Surgery, Thomas Jefferson University Hospital, Philadelphia, Pennsylvania
- 232: DYNAMICS OF VISUAL FUNCTIONS IN PATIENT WITH PITUITARY TUMORS BEFORE AND AFTER SURGERY** – Liliya Khisanova, MD, Bakhtiyar Pashaev, MD (presenter), Gulnar Vagapova, MD, Valery Danilov, MD, Dmitry Bochkarev, MD, Department of Neurosurgery, Interregional Clinical Diagnostic Center, Kazan. Kazan Medical State University, Kazan Medical State Academy, Russian Federation.
- 233: CASE REPORT - RESECTION OF RARE CLIVAL GIANT CELL TUMOR BY LE FORT I OSTEOTOMY APPROACH** – Julie Le (presenter), Kongkrit Chaiyasate, MD, Kliment Donev, MD, Sabih Effendi, MD, Daniel K Fahim, MD, Oakland University William Beaumont School of Medicine, Beaumont Health Systems Royal Oak, Michigan
- 234: ACTH-SECRETING ESTHESIONEUROBLASTOMA OCCURRING AFTER TREATMENT FOR CROOKE'S CELL ADENOMA** – Sarah J Burgin, MD, Andrew S McDaniel, MD, PhD, Jonathan B McHugh, Stephen Sullivan, MD, Erin McKean, MD, Andrew D Kroeker, MD (presenter), University of Michigan
- 235: LOW-GRADE FIBROMYXOID MESENCHYMAL TUMOR MIMICKING A CHORDOMA OF THE CLIVUS. CASE REPORT** – Oscar Feo, MD (presenter), Jaime E. Becerra, MD, Juan Carlos Acevedo, MD, Roberto Diaz, MD, Miguel Berbeo, MD, MSc, Oscar Zorro, MD, Rafael Uribe, MD, Silvia T. Quintero, MD, Laura Diaz, MD, Juan Carlos Perez, MD, Pablo Harker, MD, Pontificia Universidad Javeriana - Hospital Universitario San Ignacio
- 236: THE SURGICAL IMPLICATIONS OF THE ARACHNOID MEMBRANE IN SKULL BASE TUMORS** – Hamad I Farhat, MD (presenter), Michael Shinnars, MD, Ivan Ciric, MD, NorthShore University HealthSystem
- 237: ANATOMICAL STUDY FOR THE TRANS-ORAL ENDOSCOPIC APPROACH TO THE DORSUM SELLAE AND POSTERIOR CLINOIDS** – Robert D Engle, MD (presenter), Mark S Toma, MD, Trace Barrett, BS, Maria Peris-Celda, MD, PhD, Tyler J Kenning, MD, Carlos D Pinheiro-Neto, MD, PhD, Albany Medical Center
- 238: ENDOSCOPIC ENDONASAL APPROACH TO THE ORBIT: AN ANATOMICAL AND CLINICAL STUDY** – Matteo Zoli, MD, Daniel M Prevedello, MD, Cristian Naudy Martinez, MD (presenter), Nicolas Gil Guevara, Leo F Ditzel Filho, Jun Muto, MD, Kenichi Oyama, Bradley A Otto, MD, Ricardo L Carrau, MD, Department of Neurological Surgery, The Ohio State University, Columbus, OH, United States
- 239: LANDMARK FOR MEDIAL EXTENT OF PARACLIVAL CAROTID ARTERY AT ANTERIOR GENU** – Javan J Nation, MD (presenter), Michael Kaufmann, MS, Adam Folbe, MD, Wayne State University Department of Otolaryngology
- 240: CADAVERIC FEASIBILITY STUDY FOR SKULL BASE RECONSTRUCTION USING ANTERIORLY BASED INFERIOR TURBINATE FLAP** – Moran Amit, Jacob Cohen, Ilan Koren, Ziv Gil (presenter), Department of Otolaryngology Head and Neck Surgery, Rambam Medical Center, the Technion, Israel Institute of Technology
- 241: NERVE TRANSFER SOURCES FOR FACIAL REANIMATION** – Justin Brown, MD, Mark A Mahan, MD, Andrew Little, MD (presenter), Barrow Neurological Institute
- 242: ENDOSCOPIC ANATOMY OF MIDDLE ETHMOIDAL ARTERY** – Liang Wang, MD (presenter), Ahmed Youseef, MD, AbdulAziz AlQahtani, MD, Ramazan Gun, MD, Daniel M Prevedello, MD, Bradley A Otto, MD, Leo Ditzel Filho, MD, Ricardo L Carrau, MD, Wexner Medical Center, The Ohio State University; 1st Affiliated Hospital, Zhengzhou University, Zhengzhou
- 243: DORELLO'S CANAL: A TRIDIMENSIONAL ENDOSCOPIC ENDONASAL PERSPECTIVE.** – Nicolas Gil Guevara, MD, Daniel M Prevedello, MD, Leo F Ditzel Filho, MD, Matteo Zoli, MD, Cristian Naudy Martinez, MD (presenter), Bradley A Otto, MD, Ricardo L Carrau, MD, Department of Neurological Surgery, The Ohio State University, Columbus, OH, United States

- 244: ANATOMICAL STUDY OF THE PROMINENCES ON THE POSTERIOR WALL OF THE MAXILLARY SINUS: CLINICAL IMPLICATIONS** – Liang Wang, MD (presenter), Ramazan Gun, MD, Ahmed Yousef, MD, Ricardo L. Carrau, MD, Daniel Prevedello, MD, Bradley A Otto, MD, Leo Ditzel Filho, MD, Wexner Medical Center, The Ohio State University; 1st Affiliated Hospital, Zhengzhou University, Zhengzhou, Henan, 450052, China
- 245: THE VENTRAL ENDOSCOPIC ANATOMY OF THE INTRACAVERNOUS BRANCHES OF THE INTERNAL CAROTID ARTERY AND ITS SURGICAL CORRELATIONS** – Matteo Zoli, MD, Daniel M Prevedello, MD, Solari Domenico, MD, Leo F Ditzel Filho, Cristian Naudy Martinez, MD (presenter), Nicolas Gil Guevara, MD, Conti Michele, MD, Roger Robert, MD, Bradley A Otto, MD, Ricardo L Carrau, MD, Department of Neurological Surgery, The Ohio State University, Columbus, OH, United States
- 246: DEFINITION AND EXAMINATION OF THE BRAINSTEM SAFE ENTRY ZONES WITH 4.7T MAGNETIC RESONANCE IMAGING AND DIFFUSION TRACTOGRAPHY** – Mustafa Baskaya, Associate, professor, Bora Gurer, MD, Veysel Antar, MD, Ulas Cikla, MD (presenter), Gabriel Nerves, Aliriza Sadighi, MD, Tomer Hananya, Aaron Field, MD, PhD, Shahriar Salamat, MD, PhD, University of Wisconsin, The Department of Neurological Surgery
- 247: TRANSPETRYGOID APPROACH TO MANDIBULAR NERVE** – Ahmed S Youssef, MD, MRCS (presenter), 1: Department of Otolaryngology-Head and Neck Surgery, Alexandria University, Egypt. 2: Department of Otolaryngology-Head and Neck Surgery, Ohio State University Wexner Medical Center, USA
- 248: RISK FACTORS FOR CEREBROSPINAL LEAK AFTER ENDOSCOPIC SKULL BASE RECONSTRUCTION WITH NASOSEPTAL FLAP** – Calvin L Gruss, MS (presenter), Ivan El-Sayed, MD, Mohammed Al Komser, MD, MA, Steven D Pletcher, MD, Andrew N Goldberg, MD, MSCE, Michael McDermott, MD, School of Medicine, Vanderbilt University; Department of Otolaryngology - Head and Neck Surgery, University of California at San Francisco
- 249: PETROUS APEX PNEUMATIZATION** – Margherita Bruni, MD (presenter), Robert Wong, MD, K Paul Boyev, MD, Mark Tabor, MD, University of South Florida
- 250: THE DRAINAGE OF THE SUPERFICIAL MIDDLE CEREBRAL VEIN AND PRESERVATION OF VEIN IN AN ANTERIOR TRANSPETROSAL APPROACH** – Shunsuke Shibao, MD (presenter), Masahiro Toda, MD, PhD, Takashi Horiguchi, MD, PhD, Takeshi Kawase, MD, PhD, Kazunari Yoshida, MD, PhD, Department of Neurosurgery, Keio University School of Medicine, Tokyo, Japan
- 251: CLINICAL CORRELATES OF THE ANATOMICAL RELATIONSHIPS OF FORAMEN OVALE: A RADIOANATOMICAL STUDY** – Ahmed Youssef, MD (presenter), Ricardo L Carrau, MD, C. Arturo Solares, MD, Ahmed Tantawy, MD, Ahmed Aly Ibrahim, MD, Bradley A Otto, Daniel M Prevedello, MD, Leo L Ditzel, Filho, MD, The Ohio State University Wexner Medical Center; Alexandria University, Alexandria, Egypt
- 252: SURGERY OPTIMIZING RADIOSURGERY: THE NEOADJUVANT ROLE IN CAVERNOUS SINUS MENINGIOMA** – Felipe Marques DO REGO Monteiro, Dr (presenter), Luís Fernando Moura da Silva Júnior, Dr, Maurício Coelho Neto, Dr, Daniel Benzecry de Almeida, Dr, Ricardo Ramina, PhD, Instituto de Neurologia de Curitiba
- 253: TRAUMATIC DISSECTION OF THE INTERNAL CAROTID ARTERY AT THE SKULL BASE** – Orhan Kalemci, MD, Ozan Durmaz, MD, Suleyman Men, MD, Nuri Karabay, MD, Burak Sade, MD, FACS (presenter), Departments of Neurosurgery and Radiology, Dokuz Eylul University
- 254: THE CONTROVERSIES IN SKULL BASE TRAUMA** – Jan Hemza, MD, PhD, et, PhD (presenter), Faculty Hospital at saint Ann, Pekarska 53, Brno, C.R.
- 255: IMMEDIATE SINGLE-STAGE RECONSTRUCTION OF COMPLEX FRONTOFACIOBASAL INJURIES: PART II** – Sherif Emara, MD, Hassan Nablsi, BDS, Facharzt, Tarek ELKammash, MD, Mohamed A Sief, MD, Khaled S Attia, Akram Awadalla (presenter), North Western Armed Forces Hospital - Neurosurgery Department
- 256: DELAYED ENDOVASCULAR COIL EXTRUSION AFTER EMBOLIZATION FOR INTERNAL CAROTID ARTERY INJURY DURING ENDOSCOPIC SINUS SURGERY** – Matthew Dedmon, MD, PhD (presenter), Josh Meier, MD, Kyle Chambers, Aaron Remenschneider, MD, MPH, Brijesh Mehta, MD, Albert Yoo, MD, William Curry, MD, Derrick Lin, MD, Stacey Gray, MD, Dept. of Otolaryngology & Laryngology, Harvard Medical School, Dept. of Otolaryngology, Massachusetts Eye & Ear Infirmary, Division of NeuroInterventional Radiology, Massachusetts General Hospital, Division of Neurosurgery, Massachusetts General Hospital
- 257: ANGIOSYNTHESIS – VENOUS BEHAVIOUR, OUT FLOW FROM BRAIN VIA SKULL BASE** – Jan Hemza, MD, PhD, et, PhD (presenter), Faculty Hospital at saint Ann, Pekarska 53, Brno, C.R.
- 258: CAVERNOUS HEMANGIOMAS OF THE INTERNAL AUDITORY CANAL AND CEREBELLOPONTINE ANGLE** – Michael Oldenburg, MD, Kathryn Van Abel, MD, Matthew Carlson, MD, Jeffrey Jacob, MD (presenter), Alejandro Rivas, MD, Collin Driscoll, MD, Michael Link, MD, Mayo Clinic, Vanderbilt University
- 259: ANTERIOR CHOROIDAL ARTERY (ACHA) ANEURYSM MIMIC: DUPLICATED ACHA WITH DUAL INFUNDIBULUM** – Brian D Milligan, MD (presenter), Coleman O Martin, MD, Saint Luke's Neuroscience Institute

- 260: TRENDS IN VERTEBRAL ARTERY DISSECTION AS A RESULT OF CHIROPRACTIC CERVICAL MANIPULATION** – Sean Hashemi (presenter), Ashkan Monfared, The George Washington University
- 261: USE OF ONYX EMBOLIZATION IN LATERAL SKULL BASE SURGERY** – Justin S Golub, MD (presenter), Ravi N Samy, MD, Todd Abruzzo, MD, Mario Zuccarello, MD, Myles L Pensak, MD, University of Cincinnati, Cincinnati Children's Hospital Medical Center
- 262: CEREBRO-SINO-ORBITAL MUCORMYCOSIS: CASE REPORT OF NOVEL BIOPSY TECHNIQUE AND REVIEW OF LITERATURE** – Maya H Maloney, MD, Patrick R Maloney, MD (presenter), Miachel J Link, MD, James A Garrity, Harry J Cloft, MD, PhD, Joon H Uhm, MD, Departments of Ophthalmology, Neurosurgery, Neuroradiology and Neurology Mayo Clinic, College of Medicine, Rochester, MN, USA.
- 263: ORGANIZATION OF SURGICAL CARE FOR PATIENTS WITH ANEURYSMAL SUBARACHNOID HEMORRHAGE IN A LARGE REGION OF RUSSIA (ACCORDING TO THE REPUBLIC OF TATARSTAN)** – Valery I Danilov, MD, Andrey G Alekseev, MD, Michail JU Volodjkhin, MD, Aleksandr M Nemirovsky, MD, Nail G Shayakhmetov, MD, Bakhtiyar Pashaev, MD (presenter), Kazan State Medical University, Interregional Clinical Diagnostic Centre
- 264: INTERNAL MAXILLARY TO MCA BYPASS: INFRATEMPORAL APPROACH TO THE INTERNAL MAXILLARY ARTERY. ANATOMY AND TECHNIQUE** – Erez Nossek, MD, Peter Costantino, MD, Mark Eisenberg, MD, David Langer, MD (presenter), North Shore LIJ, Lenox Hill
- 265: COMPLEXITY OF TREATMENT FOR PICA ANEURYSM: A CASE SERIES AND REVIEW OF LITERATURE** – Vladimir Cortez, D (presenter), Ajeet Sodhi, MD, Muhammed Taqi, MD, Javed Siddiqi, MD, PhD, Desert Regional Medical Center
- 266: THE MEDIALY MIGRATING INTRACANALICULAR VESTIBULAR SCHWANNOMA: CAN WE COUNT ON MR IMAGING TO GIVE US AN ACCURATE ESTIMATE OF THE LATERAL EXTENSION OF A TUMOR?** – Matthew L Carlson, MD (presenter), Colin L Driscoll, MD, John I Lane, MD, Michael J Link, MD, Mayo Clinic, Rochester, MN
- 267: INTERNAL ACOUSTIC CANAL RECONSTRUCTION AFTER DRILLING VIA RETROSIGMOID APPROACH – STEP BY STEP TECHNIQUE AND TIPS** – Luis Fernando Silva Jr., MD (presenter), Felipe Monteiro, MD, Erasmo Silva Jr., MSc, MD, Mauricio Coelho Neto, MD, Ricardo Ramina, PhD, MSc, MD, Instituto de Neurologia de Curitiba - INC
- 268: DIAGNOSIS AND MANAGEMENT OF SPONTANEOUS MASSIVE PNEUMOCEPHALUS WITHOUT CSF LEAK** – Ammar Shaikhouni, MD, PhD (presenter), Paul Porensky, MD, Leo Ditzel, MD, Daniel Prevedello, MD, Ohio State University
- 269: DOES THE USE OF A JACKSON-PRATT DRAIN FOLLOWING CRANIOPLASTY WITH TITANIUM MESH AND HYDROXY APATITE DECREASE THE RATE OF CRANIOPLASTY COMPLICATIONS?** – Jonathan Hatch, MD (presenter), Jonathan P Blecha, BS, Austin D Person, BS, Dwight T Jones, MD, Gary F Moore, MD, University of Nebraska Medical Center, Nebraska Methodist Hospital
- 270: SURGICAL RESECTION FOLLOWING PRIMARY RADIATION TREATMENT FOR VESTIBULAR SCHWANNOMAS: DOES RADIATION IMPACT SURGICAL OUTCOMES AND EXTENT OF RESECTION?** – Amjad N Anaizi, MD (presenter), Myles Pensak, MD, Philip V Theodosopoulos, MD, Georgetown University Hospital, University of Cincinnati, University of California, San Francisco
- 271: MANAGEMENT OF THE FALLOPIAN CANAL MENINGOCELE: A CASE SERIES AND LITERATURE REVIEW** – Alex D Sweeney, MD (presenter), Marc-Elie Nader, MD, Alexander Sevy, MD, Robert A Williamson, MD, Jeffrey T Vrabec, MD, Baylor College of Medicine
- 272: POSTERIOR TRANSPOSITION OF THE FACIAL NERVE USING A MODIFIED TRANSCOCHLEAR APPROACH** – Imithri Bodhinayake, MD, Alexander I Evins, MD, Malte Ottenhausen, MD, Antonio Bernardo, MD (presenter), Department of Neurological Surgery, Weill Cornell Medical College, New York, NY, USA
- 273: GLOMUS FACIALE TUMORS: A REPORT OF TWO CASES AND LITERATURE REVIEW** – John P Leonetti, MD, Sahar Nadimi, MD (presenter), Sam J Marzo, MD, Douglas A Anderson, MD, Loyola University Medical Center
- 274: CLINICAL PRESENTATION OF VESTIBULAR SCHWANNOMA IN PATIENTS WITH BASELINE COGNITIVE DISABILITY** – Matthew L Carlson, MD (presenter), George B Wanna, MD, Colin L Driscoll, MD, Kyle D Weaver, MD, Michael J Link, MD, Mayo Clinic School of Medicine, Rochester, MN USA 55905; Vanderbilt University Medical Center, Nashville, TN USA 37232
- 275: SKULL BASE RECONSTRUCTION AFTER FAR LATERAL TRANSCONDYLAR APPROACHES USING AUTOLOGOUS FAT GRAFT-ASSISTED MEDPOR TITAN CRANIOPLASTY: SURGICAL TECHNIQUE AND NUANCES** – Rohit K Reddy, BS, Phoebe Y Ling, BS, Zachary S Mendelson, BS, James K Liu, MD, FAANS (presenter), Departments of Neurological Surgery and Otolaryngology-Head and Neck Surgery, Center for Skull Base and Pituitary Surgery, Rutgers New Jersey Medical School, Neurological Institute of New Jersey, Newark, New Jersey
- 276: THE PREVALENCE OF HIGH-RIDING JUGULAR BULB IN PATIENTS WITH ENDOLYMPHATIC HYDROPS** – Christopher D Brook, MD (presenter), Karen Buch, MD, Matthew Kaufmann, BA, Osamu Sakai, MD, Anand K Devaiah, MD, Boston Medical Center

Notes

NORTH AMERICAN SKULL BASE SOCIETY *25th Annual Meeting*



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Awards will be given to top Medial 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 Adriana Michaels at **310-424-3326**, ext. 159 or **Adriana@nasbs.org**.

