



4th World Congress for Endoscopic Surgery of the Brain, Skull Base and Spine

April 28-30, 2010

David L. Lawrence Convention Center Pittsburgh, Pennsylvania US

TUESDAY, APRIL 27, 2010

6:00 PM-9:00 PM Registration
Westin Hotel



4th World Congress for Endoscopic Surgery of the Brain, Skull Base and Spine

April 28-30, 2010

David L. Lawrence Convention Center Pittsburgh, Pennsylvania US

WEDNESDAY, APRIL 28, 2010

6:30AM-7:30AM Registration & Continental Breakfast

7:30AM-8:00AM Welcome
Paul Gardner, MD and Carl Snyderman, MD

8:00AM-10:00AM Keynote Addresses

“Skull Base Surgery: A Personal Odyssey”
Carl Snyderman, MD

“Intraventricular Endoscopy”
Alan R. Cohen, MD (*introduced by Johnathan Engh, MD*)

10:00AM-10:30AM Break with Exhibitors

10:30AM-11:45AM Panel Discussions

“Chordomas”
Chandranath Sen, MD, *Moderator*
Panelists: Paul Gardner, MD; Fred Gentili, MD

“Pituitary Surgery”
Stephen Haines, MD, *Moderator*
Panelists: Martin Bettag, MD, PhD; James Evans, MD; Melvin Field, MD

“Skull Base Reconstruction”
Peter Costantino, MD, *Moderator*
Panelists: Richard Harvey, MD; Adam Zanation, MD, William
Couldwell, MD

12:00PM-12:45PM Lunch Seminars

**“Comprehensive Classification and Overview of Endonasal Skull
Base Approaches”**
Vijay Anand, MD and Theodore Schwartz, MD

**“Endoscopic Surgery of the Posterior Fossa. Benefits and
Limitations”**
Melvin Field, MD



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WEDNESDAY, APRIL 28, 2010 (CONTINUED)

12:00PM-12:45PM Lunch Seminars (Continued)

“The Brain Stem and Posterior Fossa”

Albert Rhoton Jr, MD

“Banking for the Future of Chordoma Research: The Chordoma Foundation’s Registry and BioBank. The Role of Surgical Teams in Promoting Innovative Research”

Simone Sommer, PhD

“Safety Assistance Systems for Skull Base Surgery: From Instrument Navigation to Navigated Control”

Gero Strauss, MD, PhD

1:00PM-2:00PM Controversies Sessions and Panel Discussion

“Esthesioneuroblastoma”

William Couldwell, MD and Carl Snyderman, MD

“Meningiomas”

James Boggan, MD and Charles Teo, MD

“Endoscopy for Intraparenchymal and Intraventricular Tumors”

Johnathan Engh, MD, *Moderator*

Panelists: Ludwig Auer, MD; Peter Nakaji, MD

2:00PM-3:00 PM Free Paper Sessions

PITUITARY

Bruce Frankel, MD and Balwant Gendeh, MD, Moderators

2:00PM-2:10PM “Endoscopic Endonasal Transsphenoidal Approach for Pituitary Tumors: A Prospective 431 Case Series”

Sorin Aldea; Saad Bennis; Luc Foubert; Etienne Mireau; Anne Boulin; Stephanie Auliac; Stephan Gaillard

2:10PM-2:20PM “The Endoscopic Endonasal Approach in the Management of Endo- and Suprasellar Craniopharyngiomas”

Sorin Aldea; Emmanuel Mandonnet; Etienne Mireau; Adil Aqqad; Abdelmajid Kouadri; Stephanie Auliac; Stephan Gaillard



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WEDNESDAY, APRIL 28, 2010 (CONTINUED)

2:00PM-3:00 PM Free Paper Sessions (continued)

PITUITARY (CONTINUED)

Bruce Frankel, MD and Balwant Gendeh, MD, Moderators

2:20PM-2:30PM “Endosonic-Assisted Transnasal-Transsphenoidal Resection of Pituitary Tumors”

Bruce Frankel; Steven Morgan; Leslie Robinson

2:30PM-2:40PM “The Challenging Learning Curve in the Endoscopic Transsphenoidal Surgery of Pituitary Adenomas”

Robert Reich; Evaldas Cesnulis; Nikolai Hopf

2:40PM-2:50PM “Endonasal Endoscopic Pituitary Adenoma Surgery: A 10 Year Review”

Balwant Gendeh

2:50PM-3:00PM Discussion/Q&A

SKULL BASE

Ziv Gil, MD, PhD and C. Arturo Solares, MD, Moderators

2:00PM-2:10PM “Utility of a Three-Dimensional Endoscopic System in Skull Base Surgery”

Ziv Gil; Nevo Margalit; Noam Weizman; Dan Fliss; Oshri Wasserzug

2:10PM-2:20PM “The Retractor Endoscopic System: Results of Decompression (and Transposition) of Peripheral Nerves in Various Entrapment Neuropathies”

Kartik Krishnan; Volker Seifert

2:20PM-2:30PM “Endoscopic and Endoscopic-Assisted Surgery for Juvenile Angiofibroma”

Borucki Lukasz; Szyfter Witold; Popko Mariola

2:30PM-2:40PM “Juvenile Nasopharyngeal Angiofibromas with Intracranial Extension”

Tobias Mattei; Gustavo Nogueira; Tiago Scopel; Joao Maniglia; Ricardo Ramina

2:40PM-2:50PM “Endoscopic Transsphenoidal Surgery for Sellar and Parasellar Lesions: Significance of Surgical Maneuver under Side-Viewing Endoscope”

Masaaki Taniguchi; Eiji Kohmura

2:50PM-3:00PM “Endonasal Endoscopic Approach to the Superior Orbital Fissure”

Victor Morera; Juan Carlos Fernandez-Miranda; Daniel Prevedello; Ricky Madhok; Paul Gardner; Ricardo Carrau; Carl Snyderman; Albert Rhoton Jr; Amin B. Kassam



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WEDNESDAY, APRIL 28, 2010 (CONTINUED)

3:00 PM-3:30 PM Break with Exhibitors and Poster Presentations

3:30PM-4:30PM Free Paper Sessions

NEUROENDOSCOPY

Johnathan Engh, MD and Anand Germanwala, MD, Moderators

3:30PM-3:40PM "ICP During Endoscopic Treatment of Intraventricular Hemorrhage"
Kay Mursch; Svorad Trnovec; Julianne Behnke-Mursch

3:40PM-3:50PM "Predictive Value of Somatosensory Evoked Potential Monitoring
During Resection of Intraparenchymal and Intraventricular Tumors
Using an Endoscopic Port"
*Johnathan Engh; Donald Crammond; Jeffrey Balzer; Miguel Habeych;
Partha Thirumala; Amin Kassam*

3:50PM-4:00PM "Neuroendoscopy and Neuronavigation for Complex Cranial Cases"
Zamzuri Idris; Jafri Abdullah

4:00PM-4:10PM "The Minimally Invasive Endoscopic Supraorbital Keyhole Approach
for Surgical Treatment of Temporomesial Lesions"
Robert Reisch; Axel Stadie; Nikolai Hopf

4:10PM-4:20PM "Transcranial Endoscopic Skull Base Surgery in the Middle and
Posterior Cranial Fossa"
Nikolai Hopf; Robert Reisch

4:20PM-4:30PM Discussion/Q&A

PITUITARY

Marvin Bergsneider, MD and David Netuka, MD, PhD, Moderators

3:30PM-3:40PM "Endoscopic Endonasal Surgical Results of Pituitary Tumors with
Cavernous Sinus Invasion"
Marvin Bergsneider; Anthony Heaney; Marilene Wang

3:40PM-3:50PM "Widening of the Nasal Corridor Achieved by Middle Turbinoplasty"
*Marc-Elie Nader; Anne Sophie Evrard; Nancy McLaughlin; Michel
Bojanowski; François Lavigne*

3:50PM-4:00PM "Expanded Endoscopic Endonasal Approach Treating Huge Pituitary
Adenomas with Complete Cavernous Sinus Invasion"
*Kenichi Oyama; Noriaki Hukuhara; Shozo Yamada; Hiroshi Takahashi;
Akira Teramoto*

4:00PM-4:10PM "Comparison of Endoscopic and Microscopic Techniques for Pituitary
Adenoma Resection"
*Garni Barkhoudarian; Christopher Sarkiss; Marilene Wang; Marvin
Bergsneider*



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WEDNESDAY, APRIL 28, 2010 (CONTINUED)

3:30PM-4:30PM Free Paper Sessions (Continued)

PITUITARY (CONTINUED)

Marvin Bergsneider, MD and David Netuka, MD, PhD, Moderators

4:10PM-4:20PM “Prospective Study of 3,OT Intraoperative MR Imaging Application in Sellar Region Endoscopic Surgery”

David Netuka; Vaclav Masopust; Tomas Belsan; Vladimir Benes

4:20PM-4:30PM Discussion/Q&A

4:30PM-5:30PM Panel Discussions

“Juvenile Nasopharyngeal Angiofibroma and Benign Tumors”

Guy Petruzzelli, MD, PhD, Moderator

Panelists: Sheng-Po Hao, MD; Francois Lavigne, MD; Lee Zimmer, MD, PhD

“Craniopharyngiomas”

Theodore Schwartz, MD, Moderator

Panelists: William Couldwell, MD; Elizabeth Tyler-Kabara, MD, PhD

“Intraventricular Endoscopy”

Mark Souweidane, MD, Moderator

Panelists: Alan Cohen, MD, Johnathan Engh, MD

5:30PM Adjournment

6:15PM-6:30PM Buses Depart Westin Hotel for Warhol Museum

6:30PM-10:00PM Opening Night Reception

Andy Warhol Museum

10:00PM Final Bus Departs Warhol Museum for Westin Hotel



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6:30AM-7:00AM Registration

7:00AM-7:45AM Breakfast Seminars

“Endoscopic Port Surgery for Brain Tumors”

Johnathan Engh, MD

“Surgical Management of Vascular Lesions: Do Minimally Invasive Approaches Have a Role?”

Anand Germanwala, MD and Adam Zanation, MD

“Methods to Avoid and Manage Naso-sinusal Complications from Endoscopic Surgery of the Cranial Base and Pituitary Fossa: What I Have Learned from 500 Cases”

Francois Lavigne, MD

“When to Use the Endonasal Approach for Skull Base Meningiomas”

Charles Teo, MD

“Unique Challenges in Very Young Patients Undergoing EEA Procedures”

Elizabeth Tyler-Kabara, MD, PhD

8:00AM-9:00AM Keynote Address

“Anatomic Basis of Endoscopic Skull Base Surgery – 3D”

Albert Rhoton Jr, MD (*introduced by Paul Gardner, MD*)

9:00AM-10:00AM Plenary Session

“3D-Anatomy – From the Lab to the OR: Innovations in Minimally Invasive Skull Base and Brain Surgery”

Juan Fernandez-Miranda, MD

10:00AM-10:30AM Break with Exhibitors



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THURSDAY, APRIL 29, 2010 (CONTINUED)

10:30AM-11:45AM Panel Discussions

“Complications in Minimally Invasive Neurosurgery”

Stephen Haines, MD, *Moderator*

Panelists: Fred Gentili, MD; Charles Teo, MD

“Pituitary Surgery”

Juan Fernandez-Miranda, *Moderator*

Panelists: Marvin Bergsneider, MD; Philip Theodosopoulos, MD

“Orbital Surgery”

Joseph Maroon, MD, *Moderator*

Panelists: Amol Bhatki, MD; Albert Rhoton Jr, MD; S. Tonya Stefko, MD

12:00PM-12:45PM Lunch Seminars

“Principles of Working Channel Ventriculoscopy”

Alan Cohen, MD

“Indications for Open vs. Endoscopic Approaches to Lesions of the Anterior Skull Base”

Fred Gentili, MD and Allan Vescan, MD

“Advances in Minimally Invasive Spinal Fusion”

Larry Khoo, MD and Mick Perez-Cruet, MD

“Endoscopic Approaches for CPA Pathology”

Daniel Pieper, MD

“Endoscopic Anatomy and Surgery for Pituitary Lesions”

Philip Theodosopoulos, MD and Lee Zimmer, MD, PhD



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THURSDAY, APRIL 29, 2010 (CONTINUED)

1:00PM-2:00PM Plenary Session: Training and Education

“A Systematic Training Program for Endonasal Skull Base Surgery”

Carl Snyderman, MD

“Education in Endonasal Surgery: How to Train Otolaryngology Residents and Fellows”

Lee Zimmer, MD, PhD

“The Use of 3D Endoscopy in Flattening the Learning Curve”

Theodore Schwartz, MD

2:00PM-3:00PM Controversies Sessions

“Radiation Therapy or Radiosurgery for Chordomas”

Douglas Kondziolka, MD and Norbert Liebsch, MD, PhD

“Cavernous Sinus Surgery”

Paul Gardner, MD and Jacques Morcos, MD

“Thoracic Disc Disease: Minimally Invasive Treatment Strategies”

Richard Fessler, MD, PhD and William Taylor, MD

3:00PM-3:30PM Break with Exhibitors and Poster Presentations

3:30PM-4:30PM Free Paper Sessions

NEUROENDOSCOPY

Juan Fernandez-Miranda, MD, Moderator

3:30PM-3:40PM “Endoscope-Assisted Clipping of Bilateral Middle Cerebral Artery Aneurysms via an Unilateral Supraorbital Key-Hole Craniotomy”

Nikolai Hopf; Robert Reisch

3:40PM-3:50PM “Success ETV in the Shunt Malfunction at Hydrocephalus”

Albert Sufianov; Iuril Iakimov; Aleksandr Belik; Galina Sufianova; Maksim Zaitsev



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THURSDAY, APRIL 29, 2010 (CONTINUED)

3:30PM-4:30PM Free Paper Sessions (Continued)

NEUROENDOSCOPY (CONTINUED)

Juan Fernandez-Miranda, MD, Moderator

- 3:50PM-4:00PM “Endoscopic Intervention for Intraventricular Neurocysticercosis: An Experience of a Tertiary Level Hospital from a Developing Country”
Manish Ranjan; S. Sampath; B. Indira Devi; B. A. Chandramouli
- 4:00 PM-4:10PM “Neuroendoscopic Treatment for Colloid Cysts of the Third Ventricle: A Study of 16 Cases and Review of the Literature”
Hemant Bhartiya; Vivek Vaid
- 4:10PM-4:20PM Discussion/Q&A

SKULL BASE

Jacques Morcos, MD and Guy Petruzzelli, MD, PhD, Moderators

- 3:30PM-3:40PM “‘Far-Medial’ Endonasal Approach to the Inferior Third of the Clivus: The Transcondylar and Transjugular Tubercle Approaches”
Victor Morera; Juan Carlos Fernandez-Miranda; Daniel Prevedello; Ricky Madhok; Paul Gardner; Ricardo Carrau; Carl H. Snyderman; Albert L. Rhoton Jr; Amin B. Kassam
- 3:40PM-3:50PM “Uninostril Approach for Endoscopic Transnasal Transsphenoidal Resection of Pathologies with Sellar Origin, but Supra- and Parasellar Extension”
Rüdiger Gerlach; Almuth Meyer; Christoph Jacobi; Elisabeth Lamster; Steffen Rosahl; Joachim Klisch; Geralf Kellner
- 3:50PM-4:00PM “Endoscopic Endonasal Approach for Odontoid Removal: Technical Aspects in 3 Patients”
Sorin Aldea; Adil Aqqad; Etienne Mireau; Saad Bennis; Anne Boulin; Georges Rodesch; Stephan Gaillard
- 4:00PM-4:10PM “Comparison of the Extended Endoscopic Transsphenoidal Approach to the Keyhole Endoscopic Transcranial Approach in the Treatment of Frontobasal Meningiomas”
Robert Reisch; Nikolai Hopf
- 4:10PM-4:20PM “Minimally Invasive Endoscopic Endonasal Management of Skull Base Cholesterol Granulomas”
Burak Sade; Pete Batra; Joseph Scharpf; Martin Citardi; Joung Lee
- 4:20PM-4:30PM “Expanded Endonasal Approach to the Infratemporal Fossa: A Radioanatomic Study”
J. Drew Prosser; Ramon Figueroa; Yew Kwang Ong; Arturo Solares



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THURSDAY, APRIL 29, 2010 (CONTINUED)

4:30PM-5:30PM Panel Discussions

“Spinal Endoscopy”

Richard Fessler, MD, PhD, *Moderator*

Panelists: Kurt Eichholz, MD; Robert Isaacs, MD; Larry Khoo, MD;
Mick Perez-Cruet, MD

“Sinonasal Malignancies”

Adam Zanation, MD, *Moderator*

Panelists: Vijay Anand, MD; Sheng-Po Hao, MD; Richard Harvey, MD

“Pediatric Neuroendoscopy”

Elizabeth Tyler-Kabara, MD, PhD, *Moderator*

Panelists: Bermans Iskandar, MD; Mark Souweidane, MD

5:30PM Adjournment

6:00PM-7:00PM Reception

David L. Lawrence Convention Center

7:00PM-10:00PM Banquet

David L. Lawrence Convention Center

Guest of Honor Address and Book Signing

Bill Strickland (*introduced by Carl Snyderman, MD*)



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6:30AM-7:00AM Registration

7:00AM-7:45 AM Breakfast Seminars

“Intracerebral Neuroendoscopy: Technical Notes”

Ludwig Auer, MD

“Minimizing Sinonasal Complications of Endoscopic Cranial Base Surgery”

James Evans, MD and Marc Rosen, MD

“Clinical Outcomes: Minimally Invasive vs. Open Surgery – How Do They Compare?”

Kevin Foley, MD and Praveen Mummaneni, MD

“Minimally Invasive Lateral Spine Surgery: Indications, Complications, and Results”

Adam Kanter, MD and William Taylor, MD

“Approaches to the Petroclival Region: The Art of Tailoring”

Jacques Morcos, MD

8:00AM-9:00AM Keynote Address

“Minimally Invasive Spine Surgery: What is the Evidence?”

Richard Fessler, MD, PhD *(introduced by Adam Kanter, MD)*

9:00AM-10:00AM Plenary Session: The Future of Endoscopy

“Back to the Future: The ROBOSCOPE-Project and Beyond”

Ludwig Auer, MD

“Translating Basic Science into Minimally Invasive Skull Base Surgery”

Ivan El-Sayed, MD

10:00AM-10:30AM Break with Exhibitors



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FRIDAY, APRIL 30, 2010 (CONTINUED)

10:30AM-11:45AM Panel Discussions

“Complications in Minimally Invasive Spine Surgery”

Adam Kanter, MD, *Moderator*

Panelists: Peter Gerszten, MD; Larry Khoo, MD; Praveen Mummaneni, MD; Justin Smith, MD

“Meningiomas”

David Netuka, MD, *Moderator*

Panelists: Fred Gentili, MD; Charles Teo, MD

“Complications in Endoscopic Skull Base Surgery”

Ziv Gil, MD, PhD, *Moderator*

Panelists: Amol Bhatki, MD; Gero Strauss, MD, PhD

12:00PM-12:45PM Lunch Seminars

“Endoscopic Anatomy of the Skull Base”

Martin Bettag, MD, PhD

“Endoscopic vs. Open Cranial Base Surgery: Which One, When, and Why?”

Peter Costantino, MD and Chandranath Sen, MD

“Nuances of Microendoscopic Decompressive Spine Surgery”

Kurt Eichholz, MD and Robert Isaacs, MD

“Vascular and Bleeding Control in Endoscopic Skull Base Surgery”

Richard Harvey, MD

1:00PM-2:00PM Controversies Sessions

“Cranio cervical Junction”

Paul Gardner, MD and Praveen Mummaneni, MD



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FRIDAY, APRIL 30, 2010 (CONTINUED)

1:00PM-2:00PM Controversies Sessions (continued)

“Morbidity/Quality of Life”

“Reduced Morbidity with Endonasal Endo-oral Approaches to the Craniocervical Junction”

Ivan El-Sayed, MD

“Endoscopic vs. Open Skull Base Surgery: Comparison of Quality-of-Life and Morbidity Outcomes”

Ziv Gil, MD, PhD

“The Toll on the Nasal Corridor: Nasal Morbidity and Quality of Life Following Endoscopic Skull Base Surgery”

Allan Vescan, MD

2:00PM-3:00PM Free Paper Sessions

COMPLICATIONS

Anand Germanwala, MD and Balwant Gendeh, MD, Moderators

2:00PM-2:10PM “Cranial Base Cerebrospinal Fluid Leak Repair by Minimally Invasive Technique”
Balwant Gendeh

2:10 PM-2:20PM “Time Course of Sinonasal Symptoms in Patients Undergoing Endoscopic Endonasal Surgery Utilizing a Vascularized Pedicle Nasoseptal Flap”
Marvin Bergsneider; Marilene Wang

2:20PM-2:30PM “Elevated BMI Increases Risk of Post-Operative CSF Leak Following Transsphenoidal Surgery”
Karthik Madhavan; Brian Dlouhy; Scott Graham; Erin O’Brien; Jeremy Greenlee

2:30 PM-2:40PM “Endoscopic Repair of CSF Rhinorrhea in Patients with Intracranial Pathology”
Hisham Khalil; Ahmed Eweiss; Deva Jeyaretna

2:40PM-2:50PM “Incidence and Management of Carotid Artery Injury During Endoscopic Endonasal Surgery”
Carl Snyderman; Paul Gardner; Juan Fernandez-Miranda

2:50PM-3:00PM Discussion/Q&A



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2:00PM-3:00PM Free Paper Sessions (Continued)

SPINE

Kevin Foley, MD, Moderator

- 2:00 PM-2:10PM “Da Vinci Robot-Assisted Transoral Odontoidectomy for Basilar Invagination”
John Y.K. Lee; Jason Newman; Greg Weinstein; Deb Bhowmick; Brad Lega; Bert O’Malley Jr; M. Sean Grady; William Welch
- 2:10PM-2:20PM “Thoracoscopic Approach for the Treatment of Thoracic Disc Herniation”
Sorin Aldea; Etienne Mireau; Adil Aqqad; Saad Bennis; Anne Boulin; Pascal Campaore; Michel Dupuy; Stephan Gaillard
- 2:20PM-2:30PM “Transpedicular Endosonography to Detect Cortical Breaches in Spinal Instrumentation”
Bruce Frankel; Steven Morgan; Leslie Robinson
- 2:30PM-2:40PM “Complications and Radiographic Correction in Adult Scoliosis Following Combined Transposas Extreme Lateral Interbody Fusion and Posterior Pedicle Screw Instrumentation”
Christopher Bonfield; Matthew Tormenti; Matthew Maserati; David Okonkwo; Adam Kanter
- 2:40PM-2:50PM “Minimally Invasive Versus Open Approaches to Transforaminal Lumbar Interbody Fusion: A Single Center Experience”
Ramesh Grandhi; Komli-Kofi Atsina; David Panczykowski; Richard Spiro; Paul Gardner; Adam Kanter
- 2:50PM-3:00PM “Minimally Invasive Tethered Cord Release in Adults – A Comparison of Open and Mini-Open Approaches”
Jau-Ching Wu; Matthew Potts; Nalin Gupta; Praveen Mummaneni

3:00PM-3:30PM Break with Exhibitors and Poster Presentations

3:30PM-4:30PM Panel Discussions

“Minimally Invasive Spinal Fusion”

Praveen Mummaneni, MD, Moderator

Panelists: *Kevin Foley, MD; Adam Kanter, MD; William Taylor, MD*



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FRIDAY, APRIL 30, 2010 (CONTINUED)

3:30PM-4:30PM Panel Discussions (continued)

“Technology”

Ivan El-Sayed, MD, *Moderator*

Panelists: Vijay Anand, MD; John Y.K. Lee, MD; Gero Strauss, MD, PhD

“Sinonasal Malignancies”

Peter Costantino, MD, *Moderator*

Panelists: Ziv Gil, MD, PhD; Guy Petruzzelli, MD, PhD; Carl Snyderman, MD

4:30PM Adjournment



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SATURDAY, MAY 1, 2010 @ UPMC PRESBYTERIAN

Location: UPMC Presbyterian Hospital
B Wing, 4th Floor, Room 447
Neurosurgical Center for Education

6:45 AM **Buses Depart Westin for UPMC Presbyterian Hospital**

7:00AM-7:30AM **Continental Breakfast**

7:30AM-12:00PM **Live Surgery Demonstration**

12:00PM **Adjournment**
Buses Depart UPMC Presbyterian Hospital for Westin