

BREAKFAST FOR SEMINAR PARTICIPANTS

6:45–7:30 AM

EXHIBIT HOURS

9:00 AM–4:00 PM

BEVERAGE BREAKS

9:00–9:45 AM

2:45–3:30 PM

LUNCH BREAK

1:15–2:00 PM

NEW BREAKFAST SEMINARS IN 2010!

- 104 History of Spinal Surgery Instrumentation Technology
- 208 History of Carotid-Cavernous Sinus Fistulae
- 221 Controversies in Cerebrovascular and Endovascular Neurosurgery
- 317 Neuromodulation for Chronic Pain
- 319 Using Stereoscopic 3D Video Recording in Neurosurgery Practice and Education
- 320 Unexpected Intraoperative Vascular Complications During Intracranial Surgery-What to Do Next: A Video Presentation
- 321 Maintenance of Certification: Current Status and Trends

BREAKFAST SEMINARS

7:30–9:30 AM

Fee: \$100 each, includes breakfast

101

How I Do It: Acoustic Tumors

Moderator:

Frederick G. Barker II, MD, FACS

Panelists:

Jason A. Heth, MD
Daniel R. Pieper, MD
Bruce E. Pollock, MD
Kalmon D. Post, MD
Marc S. Schwartz, MD

The principles of selecting suitable approaches, techniques and tactics of multimodality treatment of acoustic neuromas will be described.

Learning Objectives:

- After completing this educational activity, participants should be able to:
- ✱ Identify the indications for operative treatment, radiation treatment, drug treatment and observation
 - ✱ Apply technical details of acoustic tumor surgery
 - ✱ Discuss how to avoid complications and study the outcome of surgery, radiation treatment and observation

102

Minimally Invasive Spinal Neurosurgery: Indications, Techniques and Complications

Moderator:

Kevin T. Foley, MD

Panelists:

Christopher J. Barry, MD
Domagoj Coric, MD
Kurt M. Eichholz, MD
Langston T. Holly, MD
Paul Santiago, MD

This seminar will focus on endoscopic and minimally invasive techniques for cervical, thoracic and lumbar spine surgery. Techniques for decompression

and fusion will be discussed.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✱ Describe various endoscopic and minimally invasive techniques for spinal surgery
- ✱ Discuss the indications, results and potential complications for these techniques

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N&PE R,F&MS

Lumbar Spine Fusion

Moderator:

Joan Frances O'Shea, MD

Panelists:

Andrew T. Dailey, MD
Eric M. Massicotte, MD, MSc
Russ P. Nockels, MD
Daniel K. Resnick, MD

Free for Residents, Fellows and Medical Students

This seminar describes and discusses the issues of patient selection, surgical indication and surgical techniques as they pertain to lumbar fusion. A global approach will be provided.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✱ Identify the fundamentals of the surgical decision making process
- ✱ Discuss factors involved with patient selection for lumbar spine fusion
- ✱ Distinguish between the surgical strategies for lumbar spine fusion and their relative indications, as well as their pros and cons

104

NEW

History of Spinal Surgery Instrumentation Technology

Moderator:

Mark C. Preul, MD

Panelists:

Charles Joseph Prestigiacomo, MD, FACS
Volker K. H. Sonntag, MD

Participants will receive information about the history of different types of spinal surgery.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✦ Provide a broad overview of the history of spinal surgery

105

Cavernous Malformations: Current Controversies in Management

Moderator:

Murat Gunel, MD

Panelists:

Issam A. Awad, MD
R. Michael Scott, MD
Robert F. Spetzler, MD
Mario Zuccarello, MD

This seminar will use didactic and case based discussion to explain the clinical diagnosis and management of patients with intracranial cavernous malformations.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✦ Discuss the presentation, diagnosis and natural history of intracranial cavernous malformations
- ✦ Review the expectant, surgical and radiosurgical treatment options for patients with cavernous malformations
- ✦ Review familiar cavernous malformation syndromes

106

Functional Mapping of the Cerebral Cortex: Advantages and Limitations

Moderator:

Richard W. Byrne, MD

Panelists:

Gerhard M. Friehs, MD
P. Charles Garell, MD
Isabelle M. Germano, MD, FACS
Hiroto Kawasaki, MD
Daniel L. Silbergeld, MD

All aspects and methods of functional mapping for neurosurgery will be discussed including removal of brain tumors, vascular lesions and epilepsy for awake and asleep patients.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✦ Identify and work within eloquent areas of the brain
- ✦ Discuss the technologies available to localize eloquent cortex, how this can enhance the safety of the surgery and what their limitations are
- ✦ Describe common technical errors made in functional mapping

107

Chiari Malformations: Diagnosis Treatments and Failures

Moderator:

Edward H. Oldfield, MD

Panelists:

Ulrich Batzdorf, MD
Bermans J. Iskandar, MD
Arnold H. Menezes, MD
Karin M. Muraszko, MD

This seminar will focus on the pathophysiology of Chiari malformations, the indications for treatment, therapeutic options and the basis of their success and failure.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✦ Describe the current concepts of the pathophysiology of Chiari malformations
- ✦ Recognize the indications for treatment of Chiari malformations
- ✦ Discuss the options for treatment of Chiari malformations

108

Update on Lumbar Stenosis

Moderator:

Robert E. Isaacs, MD

Panelists:

David W. Beck, MD
Christopher H. Comey, MD
William Bradford DeLong, MD
Carl Laurysen, MD
Claudius Thome, MD

This seminar will evaluate short term and long term outcomes of both surgical and nonsurgical treatment of lumbar stenosis. It will also evaluate recently developed minimal access treatments for stenosis.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✦ Discuss the natural history of spinal stenosis
- ✦ Explain the data underlying non-operative therapies for spinal stenosis
- ✦ Explain the data underlying conventional operative therapies for spinal stenosis
- ✦ Explain the data underlying the newer and less conventional operative therapies for spinal stenosis

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N&PE

Controversies in the Management of Intracerebral Hematomas

Moderator:

Neil D. Kitchen, MD, FRCS

Panelists:

H. Hunt Batjer, MD, FACS
Jonathan A. Friedman, MD
Alexander David Mendelow, FRCS, PhD
David W. Newell, MD
Yong-Kwang Tu, MD

The pathophysiology of spontaneous intracerebral hemorrhage will be described, as well as current treatment options. Recent ongoing clinical trials for treatment of ICH patients will be discussed.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✦ Discuss the management of intracerebral hemorrhage according to current clinical evidence

- ✦ Discuss rationale for current clinical studies
- ✦ Discuss evidence based medicine in the management of a patient with intracerebral hemorrhage

110

R,F&MS

Advances in Carotid Disease: Surgery vs. Endovascular Therapy

Moderator:

Robert E. Harbaugh, MD, FACS

Panelists:

Felipe C. Albuquerque, MD

William H. Brooks, MD

Sean D. Lavine, MD

Christopher M. Loftus, MD, FACS

John A. Wilson, MD, FACS

Free for Residents, Fellows and Medical Students

This seminar will explore the risk/benefit ratio for high-risk carotid surgery.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✦ Identify patients best treated by open surgery
- ✦ Identify patients best treated by endovascular approaches
- ✦ Discuss the limits of endovascular and open surgical treatment
- ✦ Identify risk factors for the endovascular and open surgical treatment

111

Pituitary Tumors

Moderator:

Edward R. Laws Jr., MD

Panelists:

Paolo Cappabianca, MD

Luiz Carlos de Alencastro, MD

Griffith R. Harsh IV, MD

Daniel F. Kelly, MD

Jean Regis, MD

Participants will obtain a state-of-the-art update on pituitary tumors, including

optimal medical, surgical and adjunctive therapies.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✦ Discuss optimal management of prolactinomas
- ✦ Describe approach advances in and extensions of transsphenoidal surgery
- ✦ Construct appropriate adjunctive treatment algorithms for patients

112

Biologics for the Spine

Moderator:

James S. Harrop, MD

Panelists:

Robert S. Bray Jr., MD

Allan D. Levi, MD, PhD

Stephen I. Ryu, MD

This seminar will focus on novel cutting edge strategies for spine stabilization, specifically focusing on bone graft extenders and substitutes, absorbable implants, and biological adjuncts for fusion.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✦ Discuss the use of electrical stimulation for promotion of fusion
- ✦ Describe the current use of absorbable and non-absorbable polymers for spinal stabilization
- ✦ Discuss the current use of BMP for spinal arthrodesis

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N&PE

Management of Spinal Axis Trauma

Moderator:

Gregory R. Trost, MD

Panelists:

Bizhan Aarabi, MD, FACS

J. Bradley Bellotte, MD

Steven Casha, MD, PhD

Sean M. Lew, MD

Nicholas Theodore, MD

A variety of commonly encountered spine injuries/fractures will be discussed. The controversies and rationale for treatment strategies will be reviewed.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✦ Discuss the pertinent issues and alternatives
- ✦ Review rationale for various spine trauma treatments

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Intracranial Endoscopy

Moderator:

Alan R. Cohen, MD, FACS

Panelists:

Jacques Caemaert, MD, Prof

James M. Drake, MD

David F. Jimenez, MD, FACS

Jody Leonardo, MD

Henry W. S. Schroeder, MD, PhD

This seminar focuses on the state-of-the-art of intracranial endoscopic neurosurgery, including ventriculoscopic surgery, endoscope-assisted microsurgery, endoscopic transnasal surgery and endoscope-assisted craniostomy surgery.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✦ Review the current state of intracranial endoscopy
- ✦ Explain the endoscopic treatment of hydrocephalus, cysts and tumors
- ✦ Describe the indications for endoscopic transnasal and skull base surgery
- ✦ Evaluate the efficacy of endoscope-assisted craniostomy surgery
- ✦ Discuss complications and strategies for complication avoidance

115

Malignant Brain Tumors: State-of-the-Art Treatment

Moderator:

Joseph M. Piepmeier, MD

Panelists:

Ennio Antonio Chiocca, MD, PhD
 Francesco DiMeco, MD
 Linda M. Liau, MD, PhD
 Andrew T. Parsa, MD, PhD
 Timothy C. Ryken, MD

This seminar will discuss new advances in the management of malignant gliomas including gene therapy, convection enhanced drug and immunotherapy. These advances will be discussed in the context of tumors managed by the neurosurgeon.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✦ Examine innovative techniques for surgery
- ✦ Review the tumor biology with gene and vaccine therapy
- ✦ Examine the role of stem cells in gliomas

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Improving Your Bottom Line

Moderator:

James I. Ausman, MD, PhD

Panelists:

David J. Boarini, MD
 Gregory B. Lanford, MD
 Troy D. Payner, MD
 Khalid A. Sethi, MD
 Christopher B. Shields, MD, FRCSC
 Richard N. Wohns, MD

This seminar will survey the solutions neurosurgeons have made to the constrictive economic environment using practicing neurosurgeons as faculty. Successful examples will cover the small practice to the academic center. This seminar encourages audience participation. It will cover options ranging from entrepreneurial to employment.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✦ Appraise techniques employed by managing partners of large neurosurgical practices to reduce overhead
- ✦ Discuss ways to manage personnel and develop innovative ways to increase the bottom line and run a more productive practice
- ✦ Discuss forces shaping healthcare
- ✦ Explain how to grow a practice in today's and tomorrow's healthcare environment

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Spinal Motion Preservation-The Posterior Column Implants

Moderator:

M. Samy Abdou, MD

Panelists:

Arya Nick Shamie, MD
 Phillip A. Tibbs, MD
 William C. Welch, MD, FACS

A wide range of treatment strategies and implantable devices are being developed to treat facet disease, spinal stenosis and other manifestations of posterior column disease without fusion. The implantable devices include X-Stop, Dynasis, TOPS and others. The results of the most recent clinical trials will be presented by investigators involved in these studies.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✦ Discuss the normal anatomy of the posterior spinal column, as well as the pathophysiology of degenerative disease
- ✦ Discuss the biomechanical basis of non fusion technology
- ✦ Explain the design features of both pedicle screw-based and inter-spinous process implants
- ✦ Compare and contrast the differing treatment strategies
- ✦ Discuss the relevant clinical results of pedicle screw-based stabilization

devices and of inter-spinous process implants

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R,F&MS

Getting the Most Out of Your Residency

Moderator:

Lawrence S. Chin, MD, FACS

Panelists:

Howard M. Eisenberg, MD
 Richard G. Ellenbogen, MD, FACS
 Jayant Jagannathan, MD
 N. Scott Litofsky, MD
 Craig H. Rabb, MD, FACS

Free for Residents, Fellows and Medical Students

This seminar will help medical students and beginning residents maximize their experience during residency.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✦ Explain the residency application process
- ✦ Review ways to maximize residency for professional development
- ✦ Explain how to balance professional and personal development
- ✦ Develop strategies to maximize financial success during residency
- ✦ Discuss the future of neurosurgery

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Vertebroplasty and Kyphoplasty: Indications, Controversies and Credentialing

Moderator:

Mick J. Perez-Cruet, MD

Panelists:

David J. Hart, MD
 Pierce Nunley, MD
 John E. O'Toole, MD
 Andrew J. Ringer, MD
 Michael Patrick Steinmetz, MD

This seminar will focus on vertebroplasty (VP) and kyphoplasty (KP) techniques, hospital credentialing

for performance of these procedures and identifying appropriate patients for each technique.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✦ Discuss the indications for VP and KP
- ✦ Discuss the rationale for choosing VP or KP for a given patient
- ✦ Discuss hospital credentialing and delineation of privileges
- ✦ Discuss techniques for avoiding complication

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N&PE

Management of Acute Spinal Cord Injury

Moderator:

Michael G. Fehlings, MD, PhD

Panelists:

Richard C. E. Anderson, MD
 Charles Kuntz IV, MD
 Scott A. Shapiro, MD
 Christopher B. Shields, MD, FRCSC
 Andrea L. Strayer, MSN, CNRN

This breakfast seminar will provide an up-to-date review of the pathophysiology, medical management, surgical options and recent clinical trials related to spinal cord injury.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✦ Discuss clinically relevant aspects of the pathophysiology of spinal cord injury
- ✦ Discuss current concepts in the medical management of spinal cord injury
- ✦ Explain the role and timing of surgical treatment for acute spinal cord injury
- ✦ Discuss recent developments in clinical trials for spinal cord injury

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Cerebral Venous System: Surgical Considerations

Moderator:

Albert L. Rhoton Jr., MD

Panelists:

Ossama Al-Mefty, MD
 Turker Kilic, MD, PhD
 Jacques J. Morcos, MD, FRCS
 Laligam N. Sekhar, MD, FACS
 Chandranath Sen, MD

This seminar will review the anatomy and surgery of the major venous sinuses and veins of the brain and the approaches to the cavernous sinus and jugular foramen.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✦ Explain the venous hazards of intracranial surgery
- ✦ Recognize operative procedures to avoid injury and complications related to the major venous sinus intracranial veins, the cavernous sinus and jugular foramen
- ✦ Discuss the anatomy of the approaches to the cavernous sinus and jugular foramen

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Building a Neurosurgery Basic Research Program

Moderator:

Matthew A. Howard III, MD

Panelists:

Mitchel S. Berger, MD, FACS
 M. Sean Grady, MD

During this session information will be provided about successful strategies for establishing a basic neurosurgery research program. The specific subspecialty areas of neurophysiology, neuro-oncology and cerebrovascular neuroscience will be covered.

Learning Objectives:

After completing this educational activity, participants should be able to:

- ✦ Explain the basic principles behind establishing a research laboratory
- ✦ Discuss the importance of collaborative research
- ✦ Discuss the importance of expert time and financial management skills when establishing a laboratory

9:45 AM–1:00 PM

PLENARY SESSION I

Moderators:

James T. Rutka, MD, PhD
 Vincent C. Traynelis, MD

9:45–9:50 AM

WELCOME

Speaker:

Vincent C. Traynelis, MD

9:51–10:14 AM

RICHARD C. SCHNEIDER LECTURE

Introduced By:

James T. Rutka, MD, PhD

Disruptive Innovation in Neurosurgery: Trauma as a Paradigm

Speaker:

Alex B. Valadka, MD, FACS

600

10:15–10:29 AM

CNS Transplantation of Purified Human Neural Stem Cells in Neuronal Ceroid Lipofuscinoses: Phase I Trial

Authors:

Nathan R. Selden, MD, PhD; Daniel J. Guillaume, MD (Portland, OR); Stephen L. Huhn, MD (Stanford, CA); Thomas K. Koch, MD; Amira Al-Uzri, MD; Robert D. Steiner, MD (Portland, OR)

601 10:30–10:44 AM

Comparison of Outcomes of Surgery and Observation in the International Study of Unruptured Intracranial Aneurysms

Authors:

James C. Torner, PhD (Iowa City, IA); Robert Brown, MD, MPH (Rochester, MN); Jie Zhang, MS (Iowa City, IA); David Piepgras, MD; John Huston, MD; Irene Meissner, MD (Rochester, MN)

10:45–11:04 AM

HUNT-WILSON LECTURE

Introduced By:

William T. Couldwell, MD, PhD

Adjusting the Activity of Individual Circuits in the Brain to Improve Cerebral Function

Speaker:

Andres M. Lozano, MD, PhD

602 11:05–11:19 AM

Does Surgical Treatment for Cervical Spondylotic Myelopathy Result in Long Term Benefit? Two Year Outcomes of the AO Spine North America CSM Multi-Center Prospective Study in 280 Subjects

Authors:

Michael G. Fehlings, MD, PhD, FRC (Toronto, Canada); Branko Kopjar, MD, PhD (Seattle, WA); Paul Arnold, MD (Kansas City, KS); Tim Yoon, MD (Atlanta, GA); Alexander Vaccaro, MD (Philadelphia, PA); Darrel Brodke, MD (Salt Lake City, UT); Jens Chapman, MD (Seattle, WA); Christopher Shaffrey, MD (Charlottesville, VA); Michael Janssen, DO (Denver, CO); Rick Sasso, MD (Indianapolis, IN)

603 11:20–11:34 AM

Natural History of Meningiomas

Authors:

Soichi Oya, MD, PhD; Seon Hwan Kim, MD; Burak Sade, MD; Chong

Gue Kim, MD; Joung H. Lee, MD (Cleveland, OH)

604 11:35–11:49 AM

Surgical Treatment of Spontaneous Spinal Cerebrospinal Fluid Leaks

Authors:

Wouter I. Schievink, MD; Penelope Kornbluth, NP, MS (Los Angeles, CA)

605 11:50 AM–12:04 PM

Favorable Outcomes of Neurosurgical Patients in a Neurosurgeon Directed Multidisciplinary Neuro Critical Care Unit

Authors:

Joshua Medow, MD; Giuditta Angelini, MD; Pat Chesmore, RN, MSN; Ben Johnson, PharmD; Laura Isaacson, RD; Edward Stoll, MSSW; Tammy Kundinger, RRT; JoAnne Robbins, PhD, SLP; Cheryl Johnson, OT; Stephen Wenk, BA Spiritual Care (Madison, WI)

12:05–12:09 PM

DISTINGUISHED SERVICE AWARD

Introduced By:

Troy M. Tippett, MD

Recipient:

Katie Orrico, JD

12:10–1:00 PM

PRESIDENTIAL ADDRESS

Introduced By:

Robert E. Harbaugh, MD, FACS

Health Care Reform 2009-2010, A Neurosurgeon's Perspective

Speaker:

Troy M. Tippett, MD

LUNCH SEMINARS

128 1:00–2:45 PM

Mid-level Practitioner Luncheon

See page 68 for more information

127 1:00–2:45 PM

Young Neurosurgeons (YNS) Luncheon

See page 67 for more information

2:45–5:15 PM

SCIENTIFIC SESSION I – TUMOR

Moderator:

Frederick F. Lang Jr., MD
Linda M. Liau, MD, PhD

This session will focus on innovations in the diagnosis, management and treatment of tumor neurosurgery. Innovations which have been developed in the last twelve months will be presented.

2:45–3:15 PM

RONALD L. BITTNER LECTURE

The Evolution of Skull Base Surgery

Speaker:

William T. Couldwell, MD, PhD

607 3:16–3:30 PM

A Novel, Reproducible, and Objective Method for Volumetric MRI Assessment of Enhancing Brain Tumors

Authors:

Charles W. Kanaly, MD; Dale Ding, BS; Jenny Hoang, MD; Peter Kranz, MD; James E. Herndon, II, PhD; April D. Coan (Durham, NC); Ian Crocker, MD; Timothy H. Fox, PhD; Paul Pantalone, MS; Anthony Waller (Atlanta, GA); Allan H. Friedman, MD; David Reardon, MD; John H. Sampson, MD, PhD (Durham, NC)

608 3:31–3:45 PM

BYRON CONE PEVEHOUSE MD AWARD
Comparative Effectiveness Review of Alternate Strategies for Assessing Hypothalamic-Pituitary Axis Function after Microsurgical Resection of Pituitary Adenoma

Authors:

Nicholas F. Marko, MD; Robert J. Weil, MD (Cleveland, OH)

609 3:46–4:00 PM

Multi-Session versus Single Session CyberKnife Stereotactic Radiosurgery for Spinal Metastases: The Georgetown & University of Pittsburgh Experience

Authors:

Brandon Stone, BS; Dwight E. Heron, MD; Peter C. Gerszten, MD (Pittsburgh, PA); Gregory Gagnon (Georgetown, DC); Xinxin Dong, PhD (Pittsburgh, PA); Fraser C. Henderson Sr., MD (Georgetown, DC)

610 4:01–4:15 PM

A Phase I Trial of Surgical Resection with Biodegradable Carmustine (BCNU) Wafer Placement Followed by Vaccination with Dendritic Cells Pulsed with Tumor Lysate for Patients with Malignant Gliomas

Authors:

Surasak Phuphanich, MD, DSc; Ray M. Chu, MD; John S. Yu, MD; Mia Mazer, MS, OPA-C; Hongqiang Wang, PhD; Natalia Serrano, BS; Miriam Nuno, PhD; Jaime Richardson, RN; Christopher J. Wheeler, PhD; Keith L. Black, MD; Jeremy D. Rudnick, MD (Los Angeles, CA)

611 4:16–4:30 PM

Use of the Histological Pseudocapsule in Surgery for Cushing's Disease(CD): Rapid Post-Operative Cortisol Decline Predicts Complete Tumor Resection

Authors:

Stephen J. Monteith, MD; Robert Starke, MD; John A. Jane Jr, MD; Edward H. Oldfield, MD (Charlottesville, VA)

612 4:31–4:45 PM

The Value of Stereotactic Radiosurgery as Primary Management for Brain Metastases from Breast Cancer

Authors:

Gillian Harrison, BS; Douglas S. Kondziolka, MD, MSc; Hideyuki Kano, MD, PhD; Huai-che Yang, MD; Donald Liew, MD; Ajay Niranjan, MD, MBA; John Flickinger, MD; L. Dade Lunsford, MD (Pittsburgh, PA)

613 4:46–5:00 PM

The Value of 5-Aminolevulinic Acid (5-ALA) for Resection of Diffusely Infiltrating Gliomas

Authors:

Georg Widhalm, MD; Stefan Wolfsberger, MD; Georgi Minchev, MD; Adelheid Woehrer, MD; Thomas Czech, MD; Daniela Prayer, MD; Christine Marosi, MD; Matthias Preusser, MD; Johannes Hainfellner, MD; Engelbert Knosp, MD (Vienna, Austria)

614 5:01–5:15 PM

SYNTHES SKULL BASE AWARD
Gamma Knife Radiosurgery for Pituitary Adenomas: Factors Related to Radiologic and Endocrine Outcomes in a Series of 400+ Patients

Authors:

Jason P. Sheehan, MD, PhD; Nader Pouratian, MD, PhD; Edward Laws, MD; Mary Lee Vance, MD (Charlottesville, VA)

2:45–5:15 PM

SCIENTIFIC SESSION II – SPINE

Moderator:

Praveen V. Mummaneni, MD
 Michael Y. Wang, MD

This session will focus on innovations in the diagnosis, management and treatment of spinal neurosurgery. Innovations which have been developed in the last twelve months will be presented.

615 2:45–2:59 PM

Nine Years Follow-Up Experiences in Three Different Nucleus Replacement Devices

Authors:

Luiz Pimenta, MD, PhD; Etevaldo Coutinho, MD; Luis Marchi, MS; Leonardo Oliveira, BSC (São Paulo, Brazil)

616 3:00–3:14 PM

Multilevel ACDF with and without BMP: A Comparison of Outcomes and Dysphagia Rates in 150 patients

Authors:

Daniel C. Lu, MD, PhD (Memphis, TN); Dean Chou, MD (San Francisco, CA); Gerald Rodts, MD (Atlanta, GA); Praveen V. Mummaneni, MD (San Francisco, CA)

3:15–3:45 PM

INVITED SPEAKER

Title TBD

Stephen L. Ondra, MD

617 3:46–4:00 PM

Endoscopic Endonasal Resection of the Odontoid Process- Clinical Outcomes

Authors:

Matthew J. Tormenti, MD; Ricky Madhok, MD; Riccardo Carrau, MD; Carl H. Snyderman, MD; Amin B.

Kassam, MD; Paul A. Gardner, MD
(Pittsburgh, PA)

618 4:01–4:15 PM

The Accuracy of Intra-Operative Electromyographic Monitoring to Determine the Presence of Malpositioned Pedicle Screws in the Lumbosacral Spine: An Analysis of 2450 Consecutive Screws

Authors:

Matthew J. McGirt, MD; Scott L. Parker, BS; S. Harrison Farber; Anubhav G. Amin, BS; Ali Bydon, MD; Daniel M. Sciubba, MD; Jean-Paul Wolinsky, MD; Ziya L. Gokaslan, MD; Timothy F. Witham, MD (Baltimore, MD)

619 4:16–4:30 PM

Surgery in Multisegmental Cervical Spondylitic Myelopathy: Anterior or Posterior Approach- Indications and Outcomes in a Series of 132 Patients

Author:

Sumit Sinha (New Delhi, India)

620 4:31–4:45 PM

Accuracy of Free Hand Pedicle Screws in the Thoracic and Lumbar Spine: Analysis of 6,816 Consecutive Screws

Authors:

Matthew J. McGirt, MD; Scott L. Parker, BS; S. Harrison Farber; Anubhav G. Amin, BS; Anne-Marie Rick, BS; Ali Bydon, MD; Daniel M. Sciubba, MD; Jean-Paul Wolinsky, MD; Ziya L. Gokaslan, MD; Timothy F. Witham, MD (Baltimore, MD)

621 4:46–5:00 PM

Intermediate Segment Degeneration after Noncontiguous Anterior Cervical Fusion

Authors:

Erica F. Bisson, MD (Salt Lake City, UT); Mical Samuelson, MD (Austin, TX); Ronald I. Apfelbaum, MD (Salt Lake City, UT)

622 5:01–5:15 PM

Smoking is a Predictor of Response to ACDF with Instrumentation in Patients with Single-Level DDD

Authors:

Paul M. Arnold, MD, FACS (Kansas City, KS); Michael Fehlings, MD, PhD (Toronto, Canada); Rick Sasso, MD (Indianapolis, IN)

2:45–5:15 PM

SCIENTIFIC SESSION III –

STEREOTACTIC AND FUNCTIONAL

Moderator:

Philip A. Starr, MD, PhD

This session will focus on innovations in the diagnosis, management and treatment of stereotactic and functional neurosurgery. Innovations which have been developed in the last twelve months will be presented.

623 2:45–2:59 PM

Real-Time Intraparenchymal Convection Enhanced Delivery: Using Saline to Generate T2 Previews of Subsequent Therapeutic Distributions

Authors:

R. Mark Richardson, MD, PhD; Francisco Gimenez, BS; Krystof S. Bankiewicz, MD, PhD (San Francisco, CA)

624 3:00–3:14 PM

Neural Stem Cells Exist within the Cerebrospinal Fluid of the Adult Human CNS

Authors:

Raymond F. Sekula, MD; Sasha H. Bakhru, PhD; Stefan F. Zappe, PhD (Pittsburgh, PA)

625 3:15–3:29 PM

MR-Guided Focused Ultrasound for Transcranial Non-Invasive Central Lateral Thalamotomy

Authors:

Daniel Jeanmonod, MD; Anne Morel, PhD; Beat Werner, MSc (Zurich, Switzerland); Eyal Zadicario, MSc (Haifa, Israel); Ernst Martin, MD (Zurich, Switzerland)

627 3:30–3:44 PM

First Results of the Interim Analysis of the Randomized Controlled SVASONA Trial for Idiopathic Normal Pressure Hydrocephalus (ISRCTN51046698)

Authors:

Ullrich Meier, MD, PhD; Johannes Lemcke, MD (Berlin, Germany); Cornelia Müller, MD; Michael Fritsch, MD, PhD; Michael Kiefer, MD, PhD; Regina Eymann, MD, PhD (Greifswald, Germany); Uwe Kehler, MD, PhD; Niels Langer, MD (Hamburg, Germany); Veit Rohde, MD, PhD; Hans-Christoph Ludwig, MD, PhD (Gottingen, Germany); Friedrich Weber, MD, PhD; Veceslav Remenez, MD (Cologne-Merheim, Germany); Martin Schuhmann, MD, PhD (Tubingen, Germany); Dirk Stengel, MD, PhD (Berlin, Germany)

3:45–4:15 PM

INVITED SPEAKER

21st Century EEG in Functional Neurosurgery

George A. Ojemann, MD

628 4:16–4:30 PM

Human Ventral Striatum Neurons Encode Reward Expectation

Authors:

Sameer Sheth, MD, PhD; Matthew Mian, BA; John Gale, PhD; Christian Camargo, BA; Shaun Patel, BA; Jason Gerrard, MD, PhD; Darin Dougherty, MD; Emad Eskandar, MD (Boston, MA)

629 4:31–4:45 PM

Real-Time Electrographic Mapping of Eloquent Cortex

Authors:

Kai J. Miller, PhD; Adam O. Hebb, MD; Jeffrey G. Ojemann, MD (Seattle, WA)

630 4:46–5:00 PM

Mapping the Anterior Temporal Lobe for Epilepsy Surgery Using fMRI

Authors:

William L. Gross, BA; Jeffrey R. Binder, MD (Milwaukee, WI)

631 5:01–5:15 PM

radiosurgery in Multiple Metastases(= 4), Criterias of Treatment

Authors:

Kita Sallabanda Diaz, MD, PhD; Jose Samblas Garcia, MD, FACS; Jose Carlos Bustos, MD, PhD; Jose Angel Gutierrez Diaz, MD, PhD; Cesar Beltran, MD, FACS; Graciela Gracia, MD, FACS; Cramen Peraza, PhD; Jose Miguel Delgado, PhD; Hugo Marsiglia, MD, Prof (Madrid, Spain)

2:45–5:15 PM

SCIENTIFIC SESSION IV –

PEDIATRICS

Moderator:

Leslie D. Cahan, MD

Mark D. Krieger, MD

This session will focus on innovations in the diagnosis, management and treatment of pediatric neurosurgery. Innovations which have been developed in the last twelve months will be presented.

632 2:45–2:59 PM

Outcomes in Pediatric Patients with Chiari I Malformation Treated without Surgery

Authors:

David M. Benglis Jr., MD; Derek Covington; Ritwik Bhatia; Sanjiv Bhatia, MD; Mohamed Samy Elhammady, MD; John Ragheb, MD; Glenn Morrison, MD; David I. Sanberg, MD (Miami, FL)

633 3:00–3:14 PM

Predictors of Long-Term Survival in Children with Juvenile Pilocytic Astrocytoma

Authors:

Debraj Mukherjee, MD, MPH; Stephanie Downing, MD; David C. Chang, MD; Hadie Adams, MD; George I. Jallo, MD; Benjamin S. Carson, MD; Alfredo Quinones-Hinojosa, MD (Baltimore, MD)

634 3:15–3:29 PM

Management of Pediatric Intracranial Arteriovenous Malformations: Experience with Multimodality Therapy

Authors:

Tim E. Darsaut, MD, FRCSC (Montreal, Canada); Raphael Guzman, MD; Mary Marcellus, RN; Lu Tian, PhD; Michael S. Edwards, MD; Huy M. Do, MD; Steven D. Chang, MD; John R. Adler, MD; Michael P. Marks, MD; Gary K. Steinberg, MD, PhD (Stanford, CA)

635 3:30–3:44 PM

The First 70 Cases of Trans-sutural Distraction Osteogenesis in Craniosynostosis Surgery

Authors:

Soo Han Yoon, MD; Dong Ha Park, MD (Suwon, Republic of Korea)

636 3:45–3:59 PM

Recurrence after Gross Total Resection of Low-Grade Pediatric Brain Tumors: The Frequency and Timing of Post-Operative Imaging

Authors:

Albert H. Kim, MD, PhD; Catalina Santa; Mark K. Kieran; Susan N. Chi; Nicole J. Ullrich; R. Michael Scott; Liliana Goumnerova (Boston, MA)

637 4:00–4:14 PM

Cosmetic and Cognitive Outcomes of Positional Plagiocephaly Treatment

Authors:

Mohammed F. Shamji, MD, PhD; Elana C. Fric-Shamji, MD; Praveen Merchant, BS; Michael Vassilyadi, MD; Enrique Ventureyra, MD (Ottawa, Canada)

4:15–4:45 PM

INVITED SPEAKER

Management of Birth Brachial Plexus Injury

Tae Sung Park, MD

638 4:46–5:00 PM

Epilepsy Surgery of the Temporal Lobe in Pediatric Population: A Retrospective Analysis

Authors:

Miguel A. Lopez-Gonzalez, MD; Jorge A. Gonzalez-Martinez, MD; Ann Warbel, CNRN; William E. Bingaman Jr., MD (Cleveland, OH)

639 5:01–5:15 PM

Orbitozygomatic Resection for Hypothalamic Hamartoma and Epilepsy: Patient Selection and Outcome

Authors:

Adib A. Ablu, MD; Harold Rekate, MD; David Wilson, MD; Timothy Uschold, MD; Maggie Varland, RN, BSN; Jack Kerrigan, MD (Phoenix, AZ)

2:45–5:15 PM

SCIENTIFIC SESSION V – CEREBROVASCULAR

Moderator:

John A. Wilson, MD, FACS

This session will focus on innovations in the diagnosis, management and treatment of cerebrovascular neurosurgery. Innovations which have been developed in the last twelve months will be presented.

640 2:45–2:59 PM

Length of Stay and Total Hospital Charges of Clipping versus Coiling for Ruptured and Unruptured Adult Cerebral Aneurysms in the Nationwide Inpatient Sample Database: 2002-2006

Authors:

Brian L. Hoh, MD; Yueh-Yun Chi, PhD; Matthew Lawson, MD; J Mocco, MD (Gainesville, FL); Frederick G. Barker II, MD, FACS (Boston, MA)

641 3:00–3:14 PM

Inheritance Pattern of Familial Moyamoya Disease in North America: Autosomal Dominant with Incomplete Penetrance

Authors:

Achal S. Achrol, MD; Monika Varga, BS; Keyan Salari, BA; Raphael Guzman, MD; Teresa Bell-Stephens,

MD; Gary K. Steinberg, MD, PhD (Stanford, CA)

642 3:15–3:29 PM

Restenosis Rates following Vertebral Artery Origin Stenting: Does Stent Type Make a Difference?

Authors:

Sabareesh K. Natarajan, MD, MS (Buffalo, NY); Christopher S. Ogilvy, MD; Xinyu Yang, MD, PhD (Boston, MA); Erik F. Hauck, MD, PhD; Luona Sun, BS; L. Nelson Hopkins III, MD; Adnan H. Siddiqui, MD, PhD; Elad I. Levy, MD (Buffalo, NY)

643 3:30–3:44 PM

Emergency Extracranial-Intracranial Bypass for Acute Ischemic Stroke

Authors:

Eric S. Nussbaum, MD; Tariq M. Janjua, MD; Archie Defillo, MD; Jody Lowary, CPNP; Leslie Nussbaum, MD, PhD (Saint Paul, MN)

644 3:45–3:59 PM

Natural Course, Management Risks and Quality of Life of Patients with Unruptured Cerebral Aneurysms: Japan Unruptured Cerebral Aneurysm Study II (UCAS II)

Authors:

Akio Morita, MD, PhD (Tokyo, Japan)

645 4:00–4:14 PM

Value of Intraoperative Dynamic Susceptibility-Contrast MRI for Aneurysm Surgery – Feasibility and Initial Experience

Authors:

Thomas Schmidt, MD (Günzburg, Germany); Thomas Kretschmer, MD, PhD (Oldenburg, Germany); Gregor Antoniadis, MD, PhD; Christian Rainer Wirtz, MD, PhD; Ralph Werner König, MD (Günzburg, Germany)

646 4:15–4:29 PM

Incidence and Predictors of Seizure in Subarachnoid Patients Not Receiving Antiepileptic Drugs

Authors:

Dean Kostov, MD; David Panzykowski, BS; Brian Jankowitz, MD; Hilal Kanaan, MD; Michael Horowitz, MD (Pittsburgh, PA)

647 4:30–4:44 PM

SYNTHES CEREBROVASCULAR SECTION RESIDENT/FELLOW AWARD Genome-Wide Survey of Early Gene Expression in Rats and Non-Human Primates after Stroke: Differential Expression of Brain Vascular Permeability and Pro-Apoptotic Genes Differs Between Species

Authors:

Douglas J. Cook, MD; Lucy Teves, BSC; Michael Tymianski, MD, PhD (Toronto, Canada)

4:45–5:15 PM

INVITED SPEAKER

Cerebrovascular Surgery: If We Want Things to Stay as They are, Things Will Have to Change

Neal F. Kassell, MD

2:45–5:15 PM

SCIENTIFIC SESSION VI – NEUROTRAUMA AND CRITICAL CARE

Moderator:

Steven Casha, MD, PhD
M. Sean Grady, MD

This session will focus on innovations in the diagnosis, management and treatment of neurotrauma neurosurgery. Innovations which have been developed in the last twelve months will be presented.

648 2:45–2:59 PM

Incorporating a Parenchymal Thermal Diffusion CBF Probe in Bedside Assessment of Cerebral Autoregulation and Vasoreactivity in Severe TBI Patients

Authors:

Guy Rosenthal, MD; Rene Sanchez-Mejia, MD; Nicolas Phan, MD; J. Claude Hemphill III, MD; Christine Martin, RN, MS; Geoffrey T. Manley, MD, PhD (San Francisco, CA)

649 3:00–3:14 PM

Outcomes of 34 Patients from the Wars in Iraq and Afghanistan who have Undergone Bilateral or Bicompartamental Craniectomies

Authors:

Michael S. Dirks, MD (Washington, DC); Robert Ecker, MD; Lisa Mulligan, MD (Bethesda, MD); Rocco Armonda, MD; Randy Bell, MD (Washington, DC)

650 3:15–3:29 PM

Biological and Mechanical Profile of Bench Top Blast Wave Traumatic Brain Injury Model in Rat

Authors:

Atsuhiko Nakagawa, MD, PhD; Kiyonobu Ohtani, PhD; Hiroaki Yamamoto, PhD; Kazuyoshi Takayama, PhD; Teiji Tominaga, MD, PhD (Sendai, Japan)

3:30–4:00 PM

INVITED SPEAKER

Stop the Insanity: Getting Results from TBI Trials

Alex B. Valadka, MD, FACS

651 4:01–4:15 PM

The Influence of Insurance Status on Transfer for Head Injury Patients at Massachusetts General Hospital from 1993-2009

Authors:

Maya Babu, BS; Brian V. Nahed, MD; Marc A. DeMoya, MD; William T. Curry, MD (Boston, MA)

652 4:16–4:30 PM

Clinical Trials of Acidic Fibroblast Growth Factor in Chronic Human Spinal Cord Injury

Authors:

Henrich Cheng, MD, PhD; Jau-Ching Wu, MD; Wen-Cheng Huang, MD; Yun-An Tsai, MD; Tsung-Hsi Tu, MD; Li-Yu Fay, MD (Taipei, Taiwan)

653 4:31–4:45 PM

INTERNATIONAL TRAVEL SCHOLARSHIP Intravenous Injection of Human Umbilical Cord Matrix Stem Cell (Wharton jelly stem cell) Provides Functional Recovery in a Rat Model of Traumatic Brain Injury

Authors:

Mohsen Marzban; Navid Modiry (Tehran, Iran)

654 4:46–5:00 PM

The Utility of FA-SPM Imaging for Detecting Minute Brain Lesions Secondary to Diffuse Axonal Injury

Authors:

Jun Shinoda, MD, PhD, FRC; Yoshitaka Asano, MD, DMSc; Shunsuke Takenaka, MD; Tatsuki Aki, MD; Jitsuhiro Yamada, MD, PhD (Minokamo, Japan)

655 5:01–5:15 PM

A Comparison of Hinge Craniotomy and Craniectomy for the Treatment of Malignant Intracranial Hypertension: Long-Term Clinical Outcomes

Authors:

Tyler J. Kenning, MD; John W. German, MD (Albany, NY)

JOINT ANNUAL BUSINESS MEETING OF THE AMERICAN ASSOCIATION OF NEUROLOGICAL SURGEONS AND THE AMERICAN ASSOCIATION OF NEUROSURGEONS

5:30 – 6:30 PM

HISTORY DINNER

6:00–9:30 PM

Pennsylvania Academy of the Fine Arts

Featuring the Setti S. Rengachary Memorial Lecture

Presenter:

Richard R. Beeman, PhD
Professor and Chair, Department of History, University of Pennsylvania

6:00–7:00 PM

Reception

7:00–8:15 PM

Dinner

8:15–9:00 PM

Setti S. Rengachary Lecture

9:00–9:30 PM

Tour the Art Gallery

AANS INTERNATIONAL RECEPTION

6:30–8:00 PM

Philadelphia Marriott Downtown