

**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 IN THE EXHIBIT HALL****1:15–2:00 PM***Register Early! The Following Seminars Sold Out Last Year!***123** Pediatric Head Injury**219** Meet the Press*Breakfast Seminars in 2009!***108** Craniofacial Surgery: The History of its Art and Science**204** Emerging Concepts in Stem Cell Biology and Cell Based Therapies**215** Total Lumbar Disc Arthroplasty**225** Evaluation of the Child with a CSF Shunt**226** Occupational Hazards: Dodging Bullets, Radiation and Disease**304** History of Trigeminal Neuralgia**316** Intracranial Endoscopy**324** Cerebral Venous System: Surgical Considerations**BREAKFAST SEMINARS****7:30–9:30 AM***Fee:* \$100 each, includes breakfast**101****ABNS Board Preparation: What You Must Know***Moderator:*

Daniel Louis Barrow, MD

*Panelists:*

William T. Couldwell, MD, PhD;

Tae Sung Park, MD

The panelists will describe the certification process from residency to certification. Emphasis will be placed on strategies to prepare for the oral ABNS examination.

*Learning Objectives:*

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

- Discuss requirements for board certification
- Prepare for the ABNS oral examination

**102****Multidisciplinary Management of Cerebral AVMs****R&F***Moderator:*

Neil A. Martin, MD

*Panelists:*

Michael T. Lawton, MD; Bruce E. Pollock, MD;

Robert H. Rosenwasser, MD, FACS;

Gary K. Steinberg, MD, PhD

*This clinic is free to Residents, Fellows and Medical Students.*

This will be a comprehensive discussion of the multidisciplinary management of complex cerebral AVMs. The perspective of neurosurgeons, radiosurgeons and interventionists will be presented.

*Learning Objectives:*

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

- Discuss indications for treatment of patients with AVMs

**103****Suprasellar and Juxtaseilar Tumors***Moderator:*

Michael W. McDermott, MD

*Panelists:*

William T. Couldwell, MD, PhD; Theodore H.

Schwartz, MD; Juraj Steno, MD, PhD;

Harry R. van Loveren, MD

This seminar will concentrate on explaining the approaches and indications for surgical therapy of lesions in the suprasellar region in adults and children. Appropriate preoperative evaluation and surgical decision making will be discussed. Innovative surgical techniques will be presented. Management of the most common lesions arising in this area will be discussed.

*Learning Objectives:*

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

- Review the options for surgical approaches to tuberculum sellae meningiomas
- Review the bifrontal extended frontal approach

- Review visual outcomes following surgery for tuberculum sellae meningiomas
- Review outcomes for children after surgery for craniopharyngiomas
- Review outcomes of endoscopic transsphenoidal approaches

**104****Foraminal and Far Lateral Lumbar Disc Herniations***Moderator:*

John A. Jane Sr., MD, PhD

*Panelists:*

Harel Deutsch, MD; Benoit Goulet, MD,

FRCS(C); Patrick W. Hitchon, MD;

Paul D. Sawin, MD

The clinical and imaging characteristics of foraminal and far lateral lumbar disc herniations, as well as the surgical anatomy will be presented. The various surgical approaches paramedian, transmuscular and endoscopic will be described and the indications will be discussed.

*Learning Objectives:*

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

- Recognize a foraminal and far lateral lumbar disc herniation
- Identify the surgical approaches for foraminal and lateral lumbar disc herniations
- Assess the prognosis of foraminal and lateral disc herniations

**105****Lumbar Interbody Fusion***Moderator:*

Eric J. Woodard, MD

*Panelists:*

Christopher J. Barry, MD; Catherine J. Gallo,

MD; Nicholas Theodore, MD;

Kenneth S. Yonemura, MD

This seminar will describe conditions amenable to lumbar interbody fusion and basic surgical approaches, instrumentation and complications of LIF (Lumbar Interbody Fusion).

*Learning Objectives:*

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

- Describe the indications for lumbar interbody fusion and the appropriate investigations to consider in the workup of patients

- Explain the advantages and disadvantages of various lumbar interbody fusion techniques, including minimally invasive options
- Explain approaches to minimize complications
- Discuss the relevant approach anatomy related to LIF surgery
- Discuss the latest technical advances related to LIF surgery

**106**  
**Surgical Treatment of Parkinson's Disease**

**Moderator:**  
Philip A. Starr, MD, PhD

**Panelists:**  
Aviva Abosch, MD, PhD; Roy A. E. Bakay, MD; Kenneth A. Follett, MD, PhD; Robert R. Goodman, MD, PhD

Participants will discuss current surgical targets for Parkinson's disease, a variety of technical approaches and complications.

- Learning Objectives:**  
After completing this educational activity, participants should be able to:
- Identify potential brain targets for deep brain stimulation in Parkinson's disease
  - Discuss technical alternatives in placement of DBS electrodes
  - Review complications of DBS for Parkinson's disease

**107**  
**Current and Future Treatments for Hydrocephalus**


**Moderator:**  
Mark G. Luciano, MD, PhD

**Panelists:**  
James M. Drake, MD; Saadi Ghatan, MD; Abhaya Vivek Kulkarni, MD, FRCS

This seminar will review the physiology of hydrocephalus and how new shunt systems and sensor technology are likely to change our way of treating patients. The dynamic aspects of CSF flow and pressure gradients will be discussed, as well as what pressure sensors reveal about the causes of patient symptoms and how a shunting system might be made using physiological data.

- Learning Objectives:**  
After completing this educational activity, participants should be able to:
- Identify CSF dynamics and how it changes with hydrocephalus

- Distinguish the relationship between clinical symptoms and CSF pressure measurements
- Recognize how this new approach might lead to a better shunt system based on physiological measurements

**108**   
**Craniofacial Surgery: The History of its Art and Science**

**Moderator:**  
Charles J. Prestigiacomo, MD, FACS

**Panelists:**  
Peter W. Carmel, MD; Michael S. B. Edwards, MD, FACS; James T. Goodrich, MD, PhD

This seminar will explore the history of craniofacial surgery. Though an extensive and complex history in its own right, the periods of this history can be studied as the period before the work and innovations of Dr. Tessier's career and contributions and the period and innovations following.

- Learning Objectives:**  
After completing this educational activity, participants should be able to:
- Describe and explain the evolution of craniofacial surgery before Dr. Tessier's contributions
  - Describe Dr. Tessier's career and contributions to the field and the ultimate development of this as a distinct discipline
  - Describe the various contributors and contributions to craniofacial surgery after Dr. Tessier

**109** **R&F N&PE**  
**Management of Vasospasm**

**Moderator:**  
E. Sander Connolly Jr., MD

**Panelists:**  
Peter David Le Roux, MD; R. Loch Macdonald, MD, PhD; Christina M. Stewart-Amidei, MSNRN, CCRN; Rafael J. Tamargo, MD; Erol Veznedaroglu, MD; H. Richard Winn, MD

*This seminar is free to Residents, Fellows and Medical Students.*

This seminar will present the current status of treatment measures for vasospasm. There will be presentations of cases highlighting difficulties in the treatment of cerebral vasospasm.

- Learning Objectives:**  
After completing this educational activity, participants should be able to:

- Cite the treatments available for cerebral vasospasm and describe common indications for their use
- Cite levels of evidence upon which treatments for vasospasm are based
- Recognize experimental, clinical and laboratory assessments of treatments for vasospasm

**110** **N&PE**  
**Management of Adult Scoliosis**

**Moderator:**  
Christopher I. Shaffrey, MD

**Panelists:**  
Peter Douglas Angevine, MD; Robert F. Heary, MD; Stephen L. Ondra, MD

This seminar will discuss the strategies, evaluation and management of pediatric and adult spinal deformity. Special emphasis will be placed on the association of spinal deformity with conditions commonly treated by neurosurgeons.

- Learning Objectives:**  
After completing this educational activity, participants should be able to:
- Identify conditions associated with congenital and neuromuscular scoliosis
  - Discuss diagnoses of the various types of pediatric and adult deformities
  - Identify patients requiring bracing or surgical intervention

**111**  
**Intramedullary Spinal Cord Tumors**

**Moderator:**  
Paul C. McCormick, MD

**Panelists:**  
Albino P. Bricolo, MD; Jacques Brotchi, MD, PhD; George I. Jallo, MD; Russell R. Lonser, MD

This seminar will focus on the clinical evaluation and the current surgical management of intramedullary focus of the spinal cord.

- Learning Objectives:**  
After completing this educational activity, participants should be able to:
- Evaluate methods and strategies to reduce peri-operative complications
  - Identify operative techniques to optimize safe achievement of optimal outcomes

## 112

**Building a Comprehensive Spine Center****Moderator:**

E. Hunter Dyer, MD

**Panelists:**

Christopher J. Barry, MD; Mark D. D'Alise, MD, FACS; Kevin T. Foley, MD; Richard N. Wohns, MD

This seminar instructs participants on how to develop a multidisciplinary spine center within their hospital and community setting.

**Learning Objectives:**

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

- Recognize the core components to build an effective spine center
- Discuss interventional options and design treatment protocols for spine
- Apply strategies for developing an effective spine program in your practice

## 113

**Syringomyelia: Pathophysiology and Treatment Approaches****Moderator:**

Edward H. Oldfield, MD

**Panelists:**

Nicholas M. Barbaro, MD; Ulrich Batzdorf, MD; Karin M. Muraszko, MD

This seminar reviews the biology and pathophysiology of syringomyelia as a basis for diagnosis and treatment. Participants will be able to discuss the indications for surgery, the pros and cons of different operative approaches and current opinion concerning treatments.

**Learning Objectives:**

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

- Discuss the indications for and selection of surgical approach to syringomyelia
- Discuss the pros and cons of different operative approaches for syringomyelia
- Discuss current options concerning optimal surgical techniques for syringomyelia
- Discuss the pathophysiology underlying syringomyelia

## 114

**Management of Asymptomatic Vascular Lesion****Moderator:**

Warren R. Selman, MD

**Panelists:**

David Chalif, MD, FACS; Richard S.C. Kerr, MD; Robert H. Rosenwasser, MD, FACS; Robert A. Solomon, MD; Robert F. Spetzler, MD

*This seminar is free to Residents, Fellows and Medical Students.*

This seminar will address decision making and surgical technique for asymptomatic AVMs, aneurysms, carotid disease and intracerebral stenosis/occlusion.

**Learning Objectives:**

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

- Formulate treatment plans for silent AVMs
- Formulate treatment plans for unruptured aneurysms
- Formulate treatment plans for asymptomatic vascular occlusive disease

## 115

**Neurosurgical Management of Intractable Pain****Moderator:**

Kim J. Burchiel, MD, FACS

**Panelists:**

Giovanni Broggi, MD; Robert M. Levy, MD, PhD; Konstantin V. Slavin, MD

*This clinic is free to Residents, Fellows and Medical Students.*

This seminar will review indications, techniques and outcomes of contemporary neurosurgical procedures for the treatment of intractable pain. Attention will be directed toward practical applications of therapies that can be used in a general neurosurgical practice.

**Learning Objectives:**

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

- Compare the relative roles of noninvasive and invasive therapies for pain treatment
- Contrast the common indications for stimulation and drug delivery therapies for pain management
- Describe outcomes of neuromodulation therapies for pain management

## R&amp;F N&amp;PE

## 116

**Low-Grade Gliomas****Moderator:**

Mitchel S. Berger, MD, FACS

**Panelists:**

Hugues Duffau, MD; Miguel Angel Arraez Sanchez, MD; Johannes Schramm, MD, Prof; Jeffrey H. Wisoff, MD

This seminar will provide an update on current evaluation and management of low-grade gliomas. The panel will address the variety of tumors and compare outcomes from different treatment strategies.

**Learning Objectives:**

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

- Describe the range of pathologies included in low-grade gliomas
- Distinguish between different management strategies for low-grade gliomas

## 117

**Spinal Surgical Challenges****Moderator:**

Edward C. Benzell, MD

**Panelists:**

Regis W. Haid Jr., MD; Volker K. H. Sonntag, MD; Vincent C. Traynelis, MD

This seminar is designed to present challenging cases that experienced faculty encountered.

**Learning Objectives:**

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

- Discuss how experienced surgeons overcome decision making obstacles
- Explain the nuances of the clinical decision making process

## 118

**Management of Pediatric Spinal Column Disorders****Moderator:**

Arnold H. Menezes, MD

**Panelists:**

Richard C. E. Anderson, MD; Douglas L. Brockmeyer, MD; Dachling Pang, MD

This seminar will cover the most common congenital, traumatic and neoplastic disorders of the pediatric spinal column, along with their management. Emphasis will be placed on

explaining basic biomechanical principles of the pediatric spine.

#### **Learning Objectives:**

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

- Describe indications for surgery in pediatric spinal problems
- Review basic biomechanical principles of the pediatric spine

## 119

### Cerebral Trauma State-of-the-Art Treatment

#### **Moderator:**

Alex B. Valadka, MD

#### **Panelists:**

Austin R. Colohan, MD, FACS; Geoffrey T. Manley, MD, PhD; David O. Okonkwo, MD, PhD; Jamie S. Ullman, MD

This seminar will review current and future treatment options for patients with traumatic brain injury.

#### **Learning Objectives:**

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

- Discuss optimal management strategies for patients with traumatic brain injury
- Describe therapies that may become clinically available in the near future

## 120

### The Spectrum of Adjuvant Therapy for Brain Tumors

#### **Moderator:**

Raymond Sawaya, MD

#### **Panelists:**

Jeffrey N. Bruce, MD, FACS; Amy B. Heimberger, MD; Randy Lynn Jensen, MD, PhD; James M. Markert Jr., MD

This seminar will provide a state-of-the-art review of the different treatment options available for patients with malignant brain tumors. These treatment options influence radiation therapy, including radiosurgery and chemotherapy.

#### **Learning Objectives:**

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

- Describe current scientific advances used to diagnose and treat brain tumors
- Discuss current problems with the design of effective therapies and recommend

appropriate treatment options

- Design the best treatment programs based on current data for patients with brain tumors

## 121

### Microvascular Anatomy as a Guide to Better Surgery

#### **Moderator:**

Evandro De Oliveira, MD, PhD

#### **Panelists:**

Albert L. Rhoton Jr., MD; Ugur Ture, MD

This seminar will review the anatomy, pathology and operative approaches to vascular, neoplastic and compressive lesions involving the intracranial vascular structures.

#### **Learning Objectives:**

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

- Describe the microsurgical anatomy of the vascular system in the cranium and skull base
- Diagnose pathologic lesions involving the vascular system
- Select operative approaches to vascular lesions of the brain, skull base and Circle of Willis

## 122

### New and Evolving Technologies for Minimally Invasive Surgery of the Lumbar Disc

#### **Moderator:**

Richard G. Fessler, MD, PhD

#### **Panelists:**

Charles L. Branch Jr., MD; Dean Chou, MD; Langston T. Holly, MD; Larry T. Khoo, MD

This seminar will present and evaluate new technologies for treating pathologies of the lumbar disc.

#### **Learning Objectives:**

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

- Evaluate the safety and effectiveness of new lumbar disc technologies
- Describe current indications for use of new lumbar disc technologies

## 123

### Pediatric Head Injury

## N&PE

#### **Moderator:**

Thomas G. Luerssen, MD

#### **Panelists:**

Laurie L. Ackerman, MD; Ann-Christine Duhaime, MD; John Ragheb, MD, FACS

This seminar will review the current issues surrounding the diagnosis and management of traumatic brain surgery in children. The panel will focus on unique diagnosis and therapeutic strategies.

#### **Learning Objectives:**

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

- Recognize current issues specifically related to pediatric brain injury
- Integrate or diagnose specific management strategies in pediatric head injury

## PLENARY SESSION I

9:45 AM–1:00 PM

#### **Moderators:**

James R. Bean, MD; E. Sander Connolly Jr., MD

## RICHARD C. SCHNEIDER LECTURE

### Shaping Neurosurgery's Future: A Global Enterprise

9:50–10:24 AM

#### **Introduction By:**

James R. Bean, MD

#### **Speaker:**

Edward R. Laws Jr., MD

## 600

10:25–10:39 AM

### One Year Outcomes of the STASCIS Study: A Prospective, Multicenter Trial to Evaluate the Role and Timing of Decompression in Patients with Cervical Spinal Cord Injury

#### **Authors:**

Michael G. Fehlings, MD, PhD, (Canada, Toronto); Alexander Vaccaro, MD (Philadelphia, PA); Bizhan Aarabi, MD (Baltimore, MD); Christopher Shaffrey, MD (Charlottesville, VA); Marcel Dvorak, MD; Charles Fisher, MD (Canada, Vancouver); Paul Arnold, MD (Kansas City, KS); Eric Massicotte, MD; Raja Rampersaud, MD; Stephen Lewis, MD (Canada, Toronto)

#### **Discussant:**

Paul C. McCormick, MD

**601** 10:40–10:54 AM**Long-Term Clinical Outcomes After Stereotactic Radiosurgery for Idiopathic Trigeminal Neuralgia****Authors:**

Oscar Zorro, MD; Javier Lobato-Polo, MD; Hideyuki Kano, MD, PhD; John C. Flickinger, MD; L Dade Lunsford, MD; Douglas Kondziolka, MD, MSc (Pittsburgh, PA)

**Discussant:**

Kim J. Burchiel, MD, FACS

**HUNT WILSON LECTURE**

10:55–11:29 AM

**Introduction By:**

James R. Bean, MD

**Speaker:**

Evan Snyder, MD, PhD

**Cross-Talk & Developmental Programs: A Key to Stem Cell-Mediated Approaches to CNS Pathology****602** 11:30–11:44 AM**A Study of Idiopathic Syringomyelia in the Pediatric Population: Natural Progression and Implications for Management****Authors:**

Suresh N. Magge, MD (Boston, MA); Samer Fadl, BS (New Haven, CT); Lance S. Governale, MD; Stephen V. Nalbach, MD; Edward R. Smith, MD (Boston, MA)

**Discussant:**

Karin M. Muraszko, MD

**603** 11:45–11:59 AM**Best International Abstract  
Surgical Treatment for Hypertensive Intracerebral Hemorrhage in 2464 Patients-A Multicenter Single-Blind Controlled Trial in China Mainland****Author:**

Jizong Zhao, MD, Prof (China, Beijing)

**Discussant:**

Alexander D. Mendelow, FRCS, PhD

**604** 12:00–12:14 PM**Reversal of Chronic Progressive Hearing Loss in Patients with Neurofibromatosis Type 2 Using Bevacizumab****Authors:**

Scott Plotkin, MD, PhD; Emmanuelle di Tomaso, PhD; Anat Stemmer-Rachamimov,

MD; Alma G. Sorensen, MD; Rakesh Jain, PhD; Chris Halpin, PhD; Frederick G. Barker II, MD, FACS (Boston, MA)

**Discussant:**

B. Gregory Thompson Jr., MD

**NEUROSURGERY RESEARCH AND EDUCATION FOUNDATION (NREF) GRANT PRESENTATION**

12:15–12:19 PM

**Speaker:**

Griffith R. Harsh IV, MD

**CUSHING MEDALIST**

12:20–12:24 PM

**Introduction By:**

James R. Bean, MD

**Speaker:**

Edward H. Oldfield, MD

**CUSHING ORATION**

12:25–1:00 PM

**Introduction By:**

James R. Bean, MD

**Speaker:**

Uwe Reinhardt, PhD

**128** **N&PE** 1:00–2:45 PM**Nurses Luncheon****Aneurysm Surgery****Moderator:**

Ellen Barker, MSN, APN

**Speaker:**

Anil Nanda, MD, FACS

**127** **N&PE** 1:00–2:45 PM**YNS Luncheon****The Art of Balance****Moderator:**

Jonathan A. Friedman, MD

**Speaker:**

Frederick B. Meyer, MD

**AFTERNOON SEMINAR****500** **N&PE****Neurotrauma: Advancements in Critical Care**

2:00–5:00 PM

\$100

**Moderator:**

Twyila Lay, NP, MS

**Speakers:**

Marianne E. Langlois, PA-C; Geoffrey T. Manley, MD, PhD; Shirley I. Stiver, MD, PhD

See page 63 for more details.

**SCIENTIFIC SESSION I—TUMOR  
2:45–5:15 PM**

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.

**Moderator:**

Michael W. McDermott, MD

**RONALD L. BITTNER LECTURE**

2:45–3:15 PM

**Introduction By:**

Michael W. McDermott, MD

**Speaker:**

Robert L. Martuza, MD

**Viral Vectors for Tumor Therapy****605** 3:16–3:30 PM**Hearing Outcomes After Radiosurgery for Vestibular Schwannomas: Gamma Knife versus CyberKnife****Author:**

Randall W. Porter, MD (Phoenix, AZ)

**Discussant:**

William A. Friedman, MD, FACS

**606** 3:31–3:45 PM**Leksell Radiosurgery Award  
A Systematic Analysis of Hearing and Facial Outcomes after Gamma Knife Radiosurgery for Vestibular Schwannoma****Authors:**

Isaac Yang, MD; Michael Sughruue, MD; Derrick Aranda, MD; Seunggu J. Han, BS; Sravana Chennupati, BA; Andrew T. Parsa, MD, PhD (San Francisco, CA)

**Discussant:**

William A. Friedman, MD, FACS

607 3:46–4:00 PM

**National Brain Tumor Society Mahaley Award****Phase I Trial of Topotecan by Convection Enhanced Delivery for Recurrent Malignant Gliomas***Authors:*

Jeffrey N. Bruce, MD, FACS; Robert L. Fine, MD; Peter Canoll, MD, PhD; Michael B. Sisti, MD; Guy M. McKhann II, MD; Casilda Balmaceda, MD; Aaron Tannenbaum, BA; Benjamin C. Kennedy, BA; Steven S. Rosenfeld, MD, PhD; Steve A. Sands, PhD; Rose Lai, MD; Candix L. Yanes, RN; Robert L. DeLaPaz, MD (New York, NY)

*Discussant:*

Edward H. Oldfield, MD

608 4:01–4:15 PM

**American Brain Tumor Association Young Investigator Award****In Vitro and In Vivo Targeted Delivery of Controlled-Release Nanoparticles to High Grade Gliomas Using Contrast Agent Microbubbles and High-Intensity Focused Ultrasound***Authors:*

Jason P. Sheehan, MD, PhD; Caitlin Burke, BS; Richard Price, PhD (Charlottesville, VA)

*Discussant:*

Henry Brem, MD, FACS

609 4:16–4:30 PM

**Endogenous Neural Precursors May Suppress Glioma Stem Cells By Release of BMP7***Authors:*

Michael Synowitz, MD; Sridar Chirasani, PhD; Alexander Sternjak, PhD; Daniel Besser, PhD; Stefan Momma, PhD; Peter Vajkoczy, MD; Helmut Kettenmann, PhD; Rainer Glass, PhD (Berlin, Germany)

*Discussant:*

Cameron Walter Brennan, MD

610 4:31–4:45 PM

**Poor Coverage as a Possible Explanation for the Low Efficacy Results with CED: Simulation Analysis of Patients from the PRECISE Study***Authors:*

John H. Sampson, MD, PhD (Durham, NC); Christoph Pedain, PhD; Eva Wembacher-Schröder; Inmaculada Rodriguez-Ponce, PhD

(Germany, Feldkirchen); Manfred Westphal, MD, PhD (Germany, Hamburg-Eppendorf); Sandeep Kunwar, MD, PhD (San Francisco, CA); Michael A. Vogelbaum, MD, PhD (Cleveland, OH); Raghu Raghavan, PhD; Martin Brady, PhD (Baltimore, MD); Allan H. Friedman, MD; Henry S. Friedman, MD; David A. Reardon, MD; Darell D. Bigner, MD, PhD (Durham, NC); Ira Pastan, MD (Bethesda, MD); Stephan Mittermeyer (Germany, Feldkirchen); Roland Goldbrunner, MD, PhD (Germany, Ludwig-Maximilians University, Munich); Philipp G. Tanner, MD (Germany); David Croteau (Lake Bluff, IL); Raj Puri, MD, PhD (Bethesda, MD)

*Discussant:*

Stephen B. Tatter, MD, PhD

611 4:46–5:00 PM

**Springer Journal of Neuro-Oncology Award In Vivo Hand-held Confocal Microscopy for Neurosurgery: Results in an Experimental GBM Model***Authors:*

Tejas Sankar, MD; Jennifer Eschbacher, MD; Stephen W. Coons, MD; Adrienne C. Scheck, PhD; Peter Nakaji, MD; Robert F. Spetzler, MD; Mark C. Preul, MD (Phoenix, AZ)

*Discussant:*

David W. Roberts, MD

612 5:01–5:15 PM

**Integra Foundation Award Embolization of Skullbase Meningiomas and Feeding Vessels Arising from the Internal Carotid Artery: Feasibility and Morbidity in a Series of 262 Consecutive Meningioma Patients***Authors:*

James Waldron, MD; Steven Hetts, MD; Isaac Yang, MD; Christopher Dowd, MD; Michael W. McDermott, MD; Andrew T. Parsa, MD, PhD (San Francisco, CA)

*Discussant:*

Jacques J. Morcos, MD, FRCS

**SCIENTIFIC SESSION II–SPINE**

2:45–5:15 PM

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.

*Moderator:*

Daniel K. Resnick, MD

613 2:45–2:59 PM

**Surgical Treatment of Spinal Arteriovenous Fistulas: A Consecutive Series of 154 Patients***Authors:*

Giuseppe Lanzino, MD; Andrea Saladino, MD; John L.D. Atkinson, MD; David G. Piepgras, MD; W. Richard Marsh, MD; William E. Krauss, MD; Fredric B. Meyer, MD; Anne Wagenbach, RN, CNP; John I. Lane, MD (Rochester, MN)

*Discussant:*

Elad I. Levy, MD

614 3:00–3:14 PM

**Efficacy and Safety of Tranexamic Acid in Spine Surgery: A Randomized Placebo-Controlled Study***Authors:*

Sherif M. Elwatidy, FRCS, PhD; El-Dawlatly, Ahmed Turkistani Essam Elgamal, Zain Jamjoom, Amro Hazem, Abdelazee; Essam Elgamal, DR (Saudi Arabia, Riyadh)

*Discussant:*

Stephen L. Ondra, MD

**INVITED SPEAKER**

3:15–3:45 PM

Ziya L. Gokaslan, MD, FACS

**Current Surgical Management of Spinal Neoplasms**

615 3:46–4:00 PM

**Solely Endoscopic Suboccipital Craniectomy and Cervical Laminectomy for Treatment of Chiari Malformation Type 1: A Consecutive Series of the First 100 Cases***Author:*

Xiao Di, MD, PhD (Cleveland, OH)

*Discussant:*

Arnold H. Menezes, MD

**616** 4:01–4:15 PM**The Role of Preoperative Transarterial Embolization in Spinal Tumors. A Large Single Center Experience****Authors:**

Ruth Thiex, MD, PhD; Mitchel B. Harris, MD; Kai U. Frerichs, MD (Boston, MA)

**Discussant:**

Ziya L. Gokaslan, MD, FACS

**617** 4:16–4:30 PM**Formation of Painful Seroma After the Use of rhbmp-2 in Posterolateral Spine Fusions****Authors:**

Mark P. Garrett, MD; Kumar Kakarla, MD; Randall Porter, MD; Volker K. H. Sonntag, MD (Phoenix, AZ)

**Discussant:**

Michael G. Kaiser, MD, FACS

**618** 4:31–4:45 PM**C2 Neurectomy During Atlanto-Axial Instrumented Fusion in the Elderly: Patient Satisfaction and Surgical Outcome****Authors:**

D. Kojo Hamilton, MD; Charles A. Sansur, MD; Aaron S. Dumont, MD; Justin S. Smith, MD, PhD; Christopher I. Shaffrey, MD (Charlottesville, VA)

**Discussant:**

Vincent C. Traynelis, MD

**619** 4:46–5:00 PM**Anti-Inflammatory Effect of Taurine in Spinal Cord Injury in Mice****Authors:**

Koji Osuka, MD, PhD; Yasuhiro Nakajima, MD; Yukio Seki, MD, PhD; Toshihiko Wakabayashi, MD, PhD; Makasazu Takayasu, MD, PhD (Japan, Aichi)

**Discussant:**

Christopher B. Shields, MD, FRCS(C)

**620** 5:01–5:15 PM**Results of Interspinous Process Distraction Device Placement: 2 Year Follow-Up****Authors:**

Shashikant Patil, MD; Rachael Bates, BS; Pegah Hosseini, BS; Anil Nanda, MD, FACS (Shreveport, LA)

**Discussant:**

Volker K. H. Sonntag, MD

**SCIENTIFIC SESSION III—  
STEREOTACTIC AND FUNCTIONAL  
2:45–5:15 PM**

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.

**Moderator:**

Philip A. Starr, MD, PhD

**621** 2:45–2:59 PM**Gildenberg S&F Resident Award  
Comparisons of Human Embryonic Stem Cells (hESC) and Human Umbilical Cord Blood Stem Cell (hUCB) in Parkinson's Disease****Authors:**

Adam Smith, MD; Mary B. Newman, PhD; Leo Kelly, BA; Roy Bakay, MD (Chicago, IL)

**Discussant:**

Daniel A. Lim, MD, PhD

**622** 3:00–3:14 PM**A Systematic Analysis of the Critical Variables for Success in Therapeutic Human Cortical Stimulation****Authors:**

Robert M. Levy, MD, PhD; Jonathon Lebovitz, MS; Sara J. Gorsky, BA; Todd Parrish, PhD (Chicago, IL)

**Discussant:**

Matthew A. Howard III, MD

**623** 3:15–3:29 PM**Considerations Regarding Heating of Deep Brain Stimulation Leads During 3.0 Tesla Magnetic Resonance Imaging****Authors:**

Joshua A. Klemp, MD; Gregory Onyszchuk, PhD; Jules M. Nazzaro, MD (Kansas City, KS)

**Discussant:**

Ali R. Rezaei, MD

**624** 3:30–3:44 PM**The Effect of Subthalamic Nucleus High Frequency Stimulation on the Contralateral Subthalamic Nucleus****Authors:**

Jules M. Nazzaro, MD; Joshua A. Klemp, MD; Larry W. Ridings, MD; Kelly E. Lyons, PhD; Rajesh Pahwa, MD (Kansas City, KS); Peter Novak, MD, PhD (Worcester, MA)

**Discussant:**

Roy A. E. Bakay, MD

**INVITED SPEAKER****How Much to Resect in Surgery for Temporal Lobe Epilepsy: Concepts, Trials, Findings**

3:45–4:15 PM

Johannes Schramm, MD

**625** 4:16–4:30 PM**Prospective Comparison of Posterior Fossa Exploration and Radiosurgery as Primary Surgery for Patients with Typical Trigeminal Neuralgia****Authors:**

Bruce E. Pollock, MD; Kimberly A. Schoeberl, RN (Rochester, MN)

**Discussant:**

Kenneth A. Follett, MD, PhD

**626** 4:31–4:45 PM**The Modulation of Human Nucleus Accumbens Neurons During Goal Oriented Behavior****Authors:**

Jason L. Gerrard, MD, PhD; John T. Gale, PhD; Felipe A. Jain, MD; Emad N. Eskandar, MD (Boston, MA)

**Discussant:**

Guy M. McKhann II, MD

**627** 4:46–5:00 PM**Single-Tensor Versus Two-Tensor Method in Diffusion Tensor Tractography to Demonstrate the Hand and Face Motor Fibers for Surgical Planning****Authors:**

Alireza Radmanesh, MD; Stephen Whalen, BS; Amir A. Zamani, MD; Ferenc A. Jolesz, MD; Alexandra J. Golby, MD (Boston, MA)

**Discussant:**

Allan H. Friedman, MD, FACS

**628** 5:01–5:15 PM**Stereotactic Radiosurgical Treatment of Cranial and Spinal Hemangioblastomas****Authors:**

Steven D. Chang, MD; Jason Moss, BS; Scott G. Soltys, MD; Iris C. Gibbs, MD; John R. Adler, MD (Stanford, CA)

**Discussant:**

Russell R. Lonsler, MD

**SCIENTIFIC SESSION IV—  
PEDIATRICS  
2:45–5:15 PM**

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.

**Moderator:**

Jeffrey H. Wisoff, MD

**630** 2:45–2:59 PM**Seizure Control Outcomes After Surgical Resection of Dysembryoplastic Neuroepithelial Tumor in 50 Patients****Authors:**

Edward F. Chang, MD; Catherine Christie, MD, MPH; Tarik Tihan, MD; Nalin Gupta, MD, PhD; Mitchel S. Berger, MD; Nicholas M. Barbaro, MD (San Francisco, CA)

**Discussant:**

James T. Rutka, MD, PhD

**631** 3:00–3:14 PM**Ventriculoperitoneal Shunt After Previous Endoscopic Third Ventriculostomy: Does ETV Improve Shunt Survival?****Authors:**

Ashutosh Singhal, MD; Tia Liu, BSC; Paul Steinbok, FRCS; D. Douglas Cochrane, MD (Canada, Vancouver)

**Discussant:**

Alan R. Cohen, MD, FACS

**632** 3:15–3:29 PM**The Presence of Residual Calcifications Does Not Predict Recurrence After Gross-Total Resection of Pediatric Craniopharyngioma****Authors:**

Robert E. Elliott, MD; Yaron A. Moshel, MD,

PhD; Jeffrey H. Wisoff, MD (New York, NY)

**Discussant:**

Juraj Steno, MD, PhD

**633** 3:30–3:44 PM**Ventriculopleural Shunts in Children: A Single Institution's 30-year Experience****Authors:**

Parham Yashar, MD; Cherisse Berry, MD; Gabriel Zada, MD; J. Gordon McComb, MD (Los Angeles, CA)

**Discussant:**

James M. Drake, MD

**634** 3:45–3:59 PM**Neuropsychological and Seizure Free Outcomes in Pediatric Patients Surgically Treated for Hippocampal Sclerosis****Authors:**

Sumeet Vadera, MD; Michael Sather, MD; Julie Chen, MD; Jorge Gonzalez-Martinez, MD, PhD; William Bingaman, MD (Cleveland, OH)

**Discussant:**

Frederick A. Boop, MD, FACS

**635** 4:00–4:14 PM**Trans-Sutural Distraction Osteogenesis: New Operative Method in Craniosynostosis****Authors:**

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

**Discussant:**

James T. Goodrich, MD, PhD

**INVITED SPEAKER****Head Injury Management in Perspective:****What Things Really Make a Difference**

4:15–4:45 PM

Ann-Christine Duhaime, MD

**636** 4:46–5:00 PM**Advocacy for Transition of Spina Bifida Adolescence to Adult Healthcare****Authors:**

Dianna Blevins, RN, MSN; Jogi V. Pattisapu, MD, FACS; Suzanne McKee, RN; Gregory Olavarria, MD; Robyn Rhoades, RN (Orlando, FL)

**Discussant:**

Thomas G. Luerksen, MD

**637** 5:01–5:15 PM**Morphologic Intracranial Pressure Waveform Analysis in the Setting of Ventricular Enlargement****Authors:**

Sandi Lam, MD; Shadnaz Asgari, PhD; Xiao Hu, PhD; Marvin Bergsneider, MD (Los Angeles, CA)

**Discussant:**

TBD

**SCIENTIFIC SESSION V—  
CEREBROVASCULAR  
2:45 - 5:15 PM**

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.

**Moderator:**

Jacques J. Morcos, MD, FRCS

**638** 2:45–2:59 PM**Cerebral Hyperglycolysis in Patients with Poor-Grade Subarachnoid Hemorrhage: A Combined Microdialysis and Brain Tissue Oxygen Tension Study****Authors:**

Andrew Milby, BS; Mauro Oddo, MD; H. Isaac Chen, MD; Suzanne Frangos, RN; Eileen MacMurtrie, MSN, RN; Eileen Maloney-Wilensky, MSN, RN; Michael Stiefel, MD, PhD; W. Andrew Kofke, MD; Joshua M. Levine, MD; Peter D. Le Roux, MD (Philadelphia, PA)

**Discussant:**

TBD

**639** 3:00–3:14 PM**CyberKnife Radiosurgery for Intramedullary Spinal Arteriovenous Malformations****Authors:**

Robert L. Dodd, MD, PhD; Gaurav Gupta, MSN, ACNP; Iris C. Gibbs, MD; Steven D. Chang, MD; John R. Adler, MD (Palo Alto, CA)

**Discussant:**

Robert F. Spetzler, MD

**640** 3:15–3:29 PM**Endovascular Treatment or Neurosurgical Clipping of Ruptured Intracranial Aneurysms: Effect on Angiographic Vasospasm, Delayed Ischemic Neurological Deficit and Cerebral Infarction****Authors:**

Aaron S. Dumont, MD; R. Webster Crowley, MD; Stephen J. Monteith, MD (Charlottesville, VA); Don Ilodigwe, PhD; Julian Spears, MD (Canada, Toronto); Neal F. Kassell, MD (Charlottesville, VA); R. Loch MacDonald, MD, PhD (Canada, Toronto)

**Discussant:**

Michael T. Lawton, MD

**641** 3:30–3:44 PM**SARIS (Stent-Assisted Recanalization in Ischemic Stroke): Mid-Term Results****Authors:**

J. Mocco, MD, MS; Kenneth V. Snyder, MD, PhD; Adnan H. Siddiqui, MD, PhD; L. Nelson Hopkins, MD; Elad I. Levy, MD (Buffalo, NY)

**Discussant:**

Cameron G. McDougall, MD

**642** 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; Toshikazu Kimura, MD (Japan, Tokyo); Yukinori Akiyama, MD, PhD (Japan, Sapporo); Yoshihide Nagamine, MD, PhD (Japan, Sendai); Hiroyuki Kurita, MD, PhD (Japan, Tokyo); Daiji Kataoka, MD, PhD (Japan, Kyoto); Kazuhiko Nozaki, MD, PhD (Japan, Otsu); Masaki Nishimura, MD (Japan, Kyoto); Kouji Tokunaga, MD, PhD (Japan, Okayama); Naoki Kitagawa, MD, PhD (Japan, Tokyo)

**Discussant:**

Robert A. Solomon, MD

**643** 4:00–4:14 PM**Mannose-Binding Lectin Polymorphisms Predict Neuropsychometric Outcome Following Carotid Endarterectomy****Authors:**

Brad E. Zacharia, MD; Maxwell B. Merkow, BS; Sabra C. Lewsey, BA; Zachary L. Hickman,

MD; Gene T. Yocum, BA; Andrew F. Ducruet, MD; Eric J. Heyer, MD, PhD; E. Sander Connolly Jr., MD (New York, NY)

**Discussant:**

Warren R. Selman, MD

**644** 4:15–4:29 PM**Ultra High-Dose Intra-Arterial Infusion of Verapamil Through an In-Dwelling Microcatheter for Medically Refractory Severe Vasospasm****Authors:**

Erminia Albanese, MD; Antonino Russo, MD; Monica Quiroga, MD; Arthur John Ulm, MD (Macon, GA)

**Discussant:**

Sean D. Lavine, MD

**645** 4:30–4:44 PM**Red Blood Cell Transfusion and Outcome After Aneurismal Subarachnoid Hemorrhage****Authors:**

Peter D. Le Roux, MD; W. Andrew Kofke, MD; Jennifer Faerber, BS; Joshua Levine, MD (Philadelphia, PA)

**Discussant:**

Robert J. Dempsey, MD

**INVITED SPEAKER****AVMs Management**

4:45–5:15 PM

Evandro De Oliveira, MD, PhD

**SCIENTIFIC SESSION VI —  
NEUROTRAUMA**

2:45–5:15 PM

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.

**Moderator:**

Michael G. Fehlings, MD, PhD

**646** 2:45–2:59 PM**The Role of Extracellular Glutamate Measured by Cerebral Microdialysis In Severe Traumatic Brain Injury****Authors:**

Roukoz B. Chamoun, MD; Dima Suki, PhD

Snankar Gopinath, MD; Claudia Robertson, MD (Houston, TX)

**Discussant:**

Geoffrey T. Manley, MD, PhD

**647** 3:00–3:14 PM**Activated Protein C is Neuroprotective and Mediates Neovascularization and Neurogenesis After Controlled Cortical Impact****Authors:**

Anthony L. Petraglia, MD; Corey Walker; Meenakshisudaram Thiyagarajan, PhD (Rochester, NY); José A. Fernández, MD, PhD; John H. Griffin, PhD (La Jolla, CA); Berislav V. Zlokovic, MD, PhD (Rochester, NY)

**Discussant:**

Geoffrey T. Manley, MD, PhD

**648** 3:15–3:29 PM**Complications of Cranioplasty Following Decompressive Craniectomy for Medically Refractory Intracranial Hypertension****Authors:**

M. Reid Gooch, BS; Greg E. Gin, MS; Tyler J. Kenning, MD; John W. German, MD (Albany, NY)

**Discussant:**

Rocco A. Armonda, MD

**INVITED SPEAKER****Blast is Not the Past; Lessons and Opportunities to Improve Outcomes of TBI and PTSD**

3:30–4:00 PM

Lawrence F. Marshall, MD

**649** 4:01–4:15 PM**A Comparison of Hinge Craniotomy and Craniectomy for Control of Intracranial Hypertension: Clinical and Radiologic Results****Authors:**

Tyler J. Kenning, MD; Ravi H. Gandhi, MD; Dane Smith; John W. German, MD (Albany, NY)

**Discussant:**

Bob S. Carter, MD, PhD

**650** 4:16–4:30 PM  
**Effectiveness of Controlled Lumbar CSF Drainage in Medically Refractory Increased Intracranial Pressure**

**Authors:**

Ali Murad, MD; Austin R.T Colohan, MD (Loma Linda, CA); Samer S. Ghostine, MD (Los Angeles, CA)

**Discussant:**

Harold Louis Reigate, MD

**651** 4:31–4:45 PM  
**Blood Alcohol Concentration (BAC) as a Potential Determinant of Mortality, Impairment and Disability After Traumatic Spinal Cord Injury: Analysis of the Third National Acute SCI Study (NASCIS-3) Batab**

**Authors:**

Julio C. Furlan, MD, PhD (Canada, Toronto); Michael B. Bracken, PhD (New Haven, CT); Michael G. Fehlings, MD, PhD (Canada, Toronto)

**Discussant:**

Patrick W. Hitchon, MD

**652** 4:46–5:00 PM  
**Occipital Condyle Fractures: Epidemiology, Classification and Treatment**

**Authors:**

Sabih T. Effendi; Kevin C. Morrill, MD; Howard Morgan, MD, FACS; Richard A. Suss, MD; Christopher J. Madden, MD (Dallas, TX)

**Discussant:**

James S. Harrop, MD

**653** 5:01–5:15 PM  
**Portable Head CT Scan and Its Effect on Intracranial Pressure, Cerebral Perfusion Pressure and Brain Oxygen**

**Authors:**

Kaitlin Peace; Ronald Wolfe, MD; Eileen Maloney, CRNP; Suzanne Frangos, RN; Elizabeth Sheilds, RT; Marianne Hujcs, MSN, RN; Joshua Levine, MD; Andrew Kofke, MD; Wei Yang, PhD; Peter D. LeRoux, MD (Philadelphia, PA)

**Discussant:**

Owen Bruce Samuels, MD

**JOINT ANNUAL BUSINESS MEETING OF THE AMERICAN ASSOCIATION OF NEUROLOGICAL SURGEONS AND THE AMERICAN ASSOCIATION OF NEUROSURGEONS**  
**5:30–7:30 PM**

**AANS INTERNATIONAL RECEPTION**  
**7:30–9:30 PM**  
 Mingei International Museum

# AANS Annual Meeting Recordings

During the 2008 Annual Meeting, the AANS recorded over 170 presentations and created online short courses featuring synchronized audio. In 2009, the AANS will again capture abstract presentations and special lecturers in plenary, scientific and section sessions, as well as the new international symposia.

Well-represented topics include general neurosurgery, cerebrovascular, neurotrauma, pain, pediatric, spine, stereotactic & functional, tumor, and even neurosurgical history. Save up to \$100 by ordering by May 15, 2009.



The AANS self-education line now features a variety of offerings captured at recent AANS Annual Meetings.

Featuring a multitude of topics covering diverse areas of neurosurgical importance, these recordings are ideal for anyone whose travel schedule or coverage for colleagues prevented them from attending specific sessions, or did attend a session but would like a copy of the presentation for future reference.

Other sessions—featuring a focused area of study—are also available. Topics include:

**BUSINESS/FINANCE**  
**Improving Your Bottom Line in Today's Neurosurgical Practice**

**LEGAL**  
**Medical Liability: How to Develop an Action Plan**  
**Preparation for Medical Legal/Testimony**

**NEUROTRAUMA and CRITICAL CARE**  
**Head Trauma: Current Treatments and Controversies**  
**Cerebral Trauma: State-of-the-Art Treatment**

**SPINE**  
**Minimally Invasive Microendoscopic Discectomy**  
**Modern Techniques and Future Trends in Lumbar Interbody Fusion**

**TUMOR**  
**Update on Tumors for the General Neurosurgeon**

For additional information including pricing and CME availability or to place an order, call the AANS Member Services Department at (888) 566-AANS [2267] x539 or visit the AANS Online Marketplace at <http://marketplace.aans.org>.

