

## Exhibit Hours:

9:00 AM–4:00 PM

## Lunch in the Exhibit Hall:

1:15–2:00 PM

## BREAKFAST SEMINARS

7:30–9:30 AM

Cost: \$75 each

### 101

#### Quality and Efficiency Measures in an Action Plan

##### Moderator

Mark E. Linskey, MD

##### Panelists

Robert E. Harbaugh, MD, FACS; Stacey Lambeth; Daniel K. Resnick, MD; Alan M. Scarrow, MD, JD

This seminar will focus on the current professional liability crisis, including a history of reform measures that have worked and those that have not. Methods to reduce exposure to professional liability claims will be discussed, as well as ways physicians can limit personal liability. Participants can use these strategies to develop an action plan for their practice.

##### Learning Objectives

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

- Discuss the current professional liability crisis in the U.S. and what steps organized neurosurgery is taking to combat medical liability
- Recognize strategies to reduce professional liability risks and implement them in their practice
- Identify tactics to reduce personal risk in malpractice actions

### 102

#### Open vs. Endoscopic Surgical Strategies and Approaches to the Anterior Skull Base

##### Moderator

William T. Couldwell, MD, PhD

##### Panelists

Joshua B. Bederson, MD; Fred Gentili, MD; Hae-Dong Jho, MD, PhD; Sandeep M. Kunwar, MD

This seminar will review the pathologic conditions affecting the anterior cranial base and surgical strategies employed for extradural, intradural and combined compartment lesions. Panelists will discuss steps in avoidance and management of complications, demonstrate specialized (expert) surgical approaches and indicate the appropriate application of emerging technology to anterior cranial base problems.

##### Learning Objectives

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

- Describe the various approaches to the anterior skull base
- List pathologies that would indicate use of an anterior skull base approach
- Explain various approaches to the anterior skull base
- List the advantages of using the endoscope for anterior skull base approaches

### 103

#### Cerebral Neuromonitoring

##### Moderator

R. Loch Macdonald, MD, PhD

##### Panelists

Odette Althea Harris, MD, MPH; Michael O. Kelleher, MD, FRCS; Gary K. Steinberg, MD, PhD

This seminar will review the use of various cerebral neuromonitoring techniques for surgical and ICU patients.

##### Learning Objectives

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

- Discuss application of electrophysiology (EEG, evoked potentials) functional mapping, ICP monitoring, CBF measurements, TCD and tissue chemical analysis for patients undergoing cranial and spinal surgery, as well as ICU neurotrauma patients
- Identify the uses for different cerebral neuromonitoring techniques for surgical and ICU patients

### 104

#### Cerebral Venous System: Surgical Considerations

##### Moderator

Albert L. Rhoton, Jr., MD

##### Panelists

Ossama Al-Mefty, MD; Johnny B. Delashaw, Jr., MD; Laligam N. Sekhar, MD, FACS

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

## International Opportunities in Neurosurgery

### Moderator

Merwyn Bagan, MD, MPH

### Panelists

Jack P. Rock, MD; Gail L. Rosseau, MD;  
David I. Sandberg, MD; Benjamin C.  
Warf, MD

This seminar will highlight past, present and future efforts of the Foundation for International Education in Neurological Surgery (FIENS), an organization dedicated to fostering neurosurgical education and training in developing countries. Current volunteer activities at FIENS sites around the world will be provided and information on how to become a FIENS volunteer (for both attending and resident neurosurgeons) will be discussed.

### Learning Objectives

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

- Discuss the current educational and material needs of neurosurgical training programs in the developing world

## 106

## Epilepsy: New Surgical Treatment and Management Approaches

### Moderator

Dennis D. Spencer, MD

### Panelists

Nicholas M. Barbaro, MD; Frederick A. Boop, MD, FACS; Gerald A. Grant, MD; Guy M. McKhann, II, MD; Richard Bacon Morawetz, MD

This seminar will examine the preoperative evaluation for surgery and emphasize the changing descriptive of the epileptogenic and how this may alter new surgical therapies.

### Learning Objectives

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

- Describe the common preoperative evaluations for surgery

- Describe what each evaluation provides
- Recognize how surgical approaches are made based on these evaluations

## 107

N&PE R&F

## Coil vs. Clip for Intracranial Aneurysms

### Moderator

B. Gregory Thompson, Jr., MD

### Panelists

Felipe C. Albuquerque, MD; Gavin W. Britz, MD; C. Michael Cawley, III, MD; Adel M. Malek, MD; Charles Joseph Prestigiacomo, MD

This seminar will highlight the current controversies surrounding the optional management of ruptured and unruptured intracranial aneurysms. Experts in the field will present their perspectives, experience and ideas for future study.

### Learning Objectives

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

- Analyze individual patients and make more informed treatment recommendations
- Evaluate available data and determine their significance for ruptured and unruptured intracranial aneurysms
- Assess treatment failures in intracranial aneurysms
- Assemble strategies for salvage of intracranial aneurysms

## 108

## Pediatric Head Injury

### Moderator

Thomas G. Luerksen, MD

### Panelists

Ann-Christine Duhaime, MD; Hugh J. L. Garton, MD, MHSc; 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

## 109

## Peripheral Nerve Entrapment Syndromes

### Moderator

David G. Kline, MD

### Panelists

Allan J. Belzberg, MD; Robert J. Spinner, MD, FACS; Eric L. Zager, MD

This seminar will discuss the evaluation and management of peripheral nerve entrapment syndromes.

### Learning Objectives

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

- Describe the clinical presentation and diagnostic evaluation of the various entrapment syndromes
- Discuss the conservative and surgical management options of peripheral nerve entrapment syndromes

## 110

## Complications and Complex Spinal Surgery: Lessons Learned

### Moderator

Volker K. H. Sonntag, MD

### Panelists

Regis W. Haid, Jr., MD; Paul C. McCormick, MD; Stephen L. Ondra, MD

This seminar will utilize distinctive presentation and panel discussion of cases to analyze complications associated with complex spine surgery. An emphasis will be placed on complication avoidance and management.

### Learning Objectives

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

- Analyze the causes of surgical complications in the spine
- Formulate strategies to avoid and manage spine surgery complications and apply these principles to one's practice

## 111

### Spondylolisthesis: Controversies in Management

#### Moderator

Charles L. Branch, Jr., MD

#### Panelists

Peter Douglas Angevine, MD; Ziya L. Gokaslan, MD, FACS; Langston T. Holly, MD; John E. O'Toole, MD; Michael Y. Wang, MD

A complete discussion of degenerative spondylolistheses including treatment and treatment failures will be the focus of this seminar.

#### Learning Objectives

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

- Recognize different types of degenerative spondylolisthesis
- Review current treatment options of degenerative spondylolisthesis
- Recognize future or potential implications of treatment options for degenerative spondylolisthesis

## 112

### Cervical Spondylotic Myelopathy

#### Moderator

Robert F. Heary, MD

#### Panelists

Richard G. Fessler, MD, PhD; Michael G. Kaiser, MD; Iain H. Kalfas, MD; Brian R. Subach, MD, FACS

This seminar will look at how cervical myelopathy can be caused by disc herniation, hard bone spurring, congenital stenosis, OPLL and subluxations. In addition, there can be instability and deformity. Multiple cases will be presented and the participants, followed by the panel, will go over treatment options and guidelines.

#### Learning Objectives

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

- Identify the various pathologies in myelopathy

- Distinguish the treatment (operative) options for cervical spondylotic myelopathy
- Review operative success/failure rates in cervical spondylotic myelopathy

## 113

### Update in Psychosurgery

#### Moderator

G. Rees Cosgrove, MD, FRCS(C)

#### Panelists

Aviva Abosch, MD, PhD; Paul S. Larson, MD; Andres M. Lozano, MD, PhD; Parag G. Patil, MD, PhD; Veerle Visser-Vandewalle, MD, PhD

This seminar will address the issues of surgery for psychiatric illness. Indications for surgery and the therapeutic results for different procedures will be discussed.

#### Learning Objectives

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

- Discuss neurobiological basis of psychiatric disorders
- Discuss currently available surgical treatments
- Discuss indications of psychosurgery
- Discuss current results for psychosurgical procedures

## 114

### How I Do It: Vascular Microsurgery

#### Moderator

Michael T. Lawton, MD

#### Panelists

Evandro De Oliveira, MD, PhD; Nobuo Hashimoto, MD; Jacques J. Morcos, MD, FRCS; Robert A. Solomon, MD

This seminar will address the surgeon's approach to vascular microsurgery. It will include discussions of approach, management of vascular lesions, pitfalls and complications.

#### Learning Objectives

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

- Identify a variety of surgical approaches for vascular lesions

- Identify indications for vascular microsurgery
- Describe the most common complications encountered in vascular microsurgery approaches

## 115

### Vertebral Column Tumors

#### Moderator

Ziya L. Gokaslan, MD, FACS

#### Panelists

Mark H. Bilsky, MD; Peter C. Gerszten, MD, MPH; Ehud Mendel, MD, FACS; Laurence D. Rhines, MD; Phillip A. Tibbs, MD

This seminar is intended to provide an overall review of management of both primary and metastatic spinal tumors. This would include cervical evaluation of patients, as well as various surgical resection/reconstruction technologies and state-of-the-art radiation therapy options.

#### Learning Objectives

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

- Discuss the current literature on the management of both primary and metastatic spinal tumors
- Evaluate various medical and surgical treatment options including stereotactic radiosurgery
- Identify patients who are most suitable for vertebroplasty and kyphoplasty

## 116

### Integrating Mid-Level Practitioners into Your Practice

N&PE

#### Moderator

Dean Barone, PA-C, MPAS

#### Panelists

Barry D. Birch, MD; Thomas A. Kopitnik Jr., MD; Aman B. Patel, MD

This seminar will discuss how to integrate a Mid-Level Practitioner into your practice from an administrative and financial standpoint.

### Learning Objectives

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

- Discuss the value a PA or NP can bring to your practice
- Discuss administrative incorporation of PAs and NPs into private and academic practice
- Describe reimbursement issues

## 117

### Artificial Lumbar Disc

#### Moderator

Fred H. Geisler, MD, PhD

#### Panelists

M. Samy Abdou, MD; Carl Laurysen, MD; Bruce E. Mathern, MD; Charles S. Theofilos, MD

Biomechanics of lumbar spine comparing fusion with an artificial disc will be presented along with patient selection. Status of the lumbar artificial discs currently in FDA clinical trials or approved in the United States will be presented along with surgical techniques.

### Learning Objectives

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

- Compare differences between biomechanics of fusion and artificial disc
- Discuss instantaneous axis of rotation of lumbar spine
- Explain surgical insertion techniques for artificial lumbar discs
- State degree of restoration of function and cordosis with artificial disc
- Discuss material aspects of artificial disc for wear, debris and longevity

## 118

### Evidence Based Medicine and Outcome Studies: The Design of a Clinical Study

#### Moderator

Stephen J. Haines, MD

#### Panelists

Frederick G. Barker, II, MD, FACS; Hugh J. L. Garton, MD, MHSc; Abhaya Vivek Kulkarni, MD, FRCS; Timothy C. Ryken, MD

Experts in clinical trials and outcome studies will discuss techniques of investigation and efficiency of neurosurgical care in well-designed research protocols. This will be presented from the point of view of both the neurosurgical researcher and neurosurgical journal reader.

### Learning Objectives

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

- Identify the basic types of clinical research questions
- Identify the best research designs to answer specific types of research questions
- Identify the highest quality published clinical research studies

## 119

### Surgical Approaches to the Lateral Skull Base

R&F

#### Moderator

Jeffrey J. Olson, MD

#### Panelists

Jeffrey N. Bruce, MD, FACS; John G. Golfinos, MD; Takeshi Kawase, MD; Chandranath Sen, MD

This seminar will address contemporary surgical approaches to the lateral skull base and how to avoid complications.

### Learning Objectives

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

- Discuss the pathologic processes best addressed by lateral skull base surgical approaches
- Describe the technical aspects of standard and unusual lateral skull base approaches
- Identify the most common complications to the lateral skull base and how to avoid them

## 120

### Models for Successful Neurosurgical Practice

#### Moderator

Clarence B. Watridge, MD, FACS

### Panelists

Mark H. Camel, MD; Richard Arthur Roski, MD; Warren R. Selman, MD

Building a booming and successful neurosurgical practice in this day and age is no simple task. Experts in community, academic and international neurosurgical practices will present the keys to building a successful practice while achieving quality patient care.

### Learning Objectives

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

- Explain the benefits of neurosurgical practice to hospital partnerships
- Discuss various reimbursement methodologies for partnerships
- Explain the complexities of payer contracting
- Recognize the value of an academic affiliation to neurosurgical practice
- Explain the benefits of ancillary services to patients and practice

## 121

### Meet the Press

Open to AANS Members Only.

#### Moderator

Patricia Ann Clark

Today's neurosurgeons need to be expert communicators to be effective in delivering the specialty's message to patients, public and legislative audiences. This high-energy session taught by an experienced media coach will show you how. You will discuss how to dress and act when you step before the cameras, how to develop your media message and most important, how to deliver that message successfully.

### Learning Objectives

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

- Identify strategies for effective media delivery techniques
- Develop a media message

## Neurosurgical Decision Making in the Elderly

### Moderator

Deborah L. Benzil, MD

### Panelists

Peter David Le Roux, MD; Linda L. Sternau, MD; Mary K. Sturaitis, MD; Stephen E. Sullivan, MD

One of the most significant demographic changes in the United States today is the aging of the population. As Americans live longer, incidence and prevalence of many neurosurgical diseases will change. Many questions will arise about surgical intervention and decision making in this population. This course will address many important aspects of surgical decision making in the elderly patient. Attention will be given to explaining physiological changes which impact anesthesia and to appreciating special surgical considerations for a spectrum of diseases including spinal deformity, aneurysms and trauma. Content will also be directed toward surgical treatment of diseases unique to the elderly such as dementia and NPH.

### Learning Objectives

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

- Explain physiological changes that occur in the elderly and how they impact anesthesia for neurosurgical intervention
- Review special surgical considerations and potential alternatives for a spectrum of neurosurgical diseases including spinal deformity, aneurysms and trauma in the geriatric population
- Discuss new opportunities for and potential growth of neurosurgical treatments for the fastest growing population in the US, those over the age of 60

## 123

### So You've Been Sued: What Now?

### Moderator

Stanley W. Fronczak, MD, JD, FACS

### Panelists

James R. Bean, MD; John A. Kusske, MD

The process of receiving and responding to a malpractice lawsuit will be discussed.

### Learning Objectives

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

- Describe the steps in the process of a malpractice lawsuit
- Explain what to expect and how to respond when a formal complaint is received
- Explain the techniques for handling a discovery deposition
- Describe typical emotional responses to a lawsuit and how to maintain control of personal reactions and the process of defense
- Describe courtroom experience and how to testify before a jury

## 124

### How to Advance Your Academic Career: Answers to Your Questions

### Moderator

James I. Ausman, MD, PhD

### Panelists

H. Hunt Batjer, MD, FACS; James R. Bean, MD; Mitchel S. Berger, MD, FACS; Ralph G. Dacey, Jr., MD; John A. Jane, Sr., MD, PhD

An open forum for residents and faculty in academic programs seeking advice on how to advance their careers. Faculty will include prominent heads of academic programs. Audience question format is oral or written.

### Learning Objectives

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

- Explain future trends in academia
- Discuss career management in academia with experts
- Discuss the future of academic medicine

## 125

### Your Practice: Diversification, Practice Expansion and Autonomy

### Moderator

Russell L. Travis, MD

### Panelist

David Randolph, MD

Independent medical evaluation has evolved as part of contemporary medical practices. The experienced practitioner can expand an existing practice by using additional education and expertise to capitalize on new opportunities. This introductory program will provide a brief overview of contemporary evaluation and assessment concepts and their use in conjunction with evidence based medical practices. Today's neurosurgeon can then analyze and determine what steps can lead to successful capitalization of the new opportunities.

### Learning Objectives

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

- Identify new opportunities to diversify and expand an existing practice
- Apply the basic skills of disability evaluation and determine the next steps to building a disability evaluation practice
- Identify three common sources of evidence based medicine practice guidelines
- Identify an acceptable medical-legal report and the potential risks/pitfalls of report writing

## PLENARY SESSION I

9:45 AM–1:00 PM

### Moderators

Timothy B. Mapstone, MD; Jon H. Robertson, MD

### WELCOME

9:45–9:49 AM

Timothy B. Mapstone, MD

### RICHARD C. SCHNEIDER LECTURE

9:50–10:24 AM

### Arrowsmith Reconsidered

### Speaker

A. John Popp, MD

## 600

10:25–10:39 AM

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

**Authors**

Michael G. Fehlings, MD, PhD, FRC; Alexander Vaccaro, MD; Bizhan Aarabi, MD; Christopher Shaffrey, MD; James Harrop, MD; Marcel Dvorak, MD, FRCSC; Charles G. Fisher, MD, FRCSC; Y. Raja Rampersaud, MD, FRCSC; Eric M. Massicotte, MD, FRCSC; Stephen Lewis, MD, FRCSC

**601** 10:40–10:54 AM

**Conventional Surgery Versus Stereotactic Radiosurgery in the Treatment of Single Brain Metastases: A Prospective Study with Both Randomized and Non-randomized Arms**

**Authors**

Frederick F. Lang, MD, FACS; Dima Suki, PhD; Moshe Maor, MD; Eric Chang, MD; Kenneth Hess, PhD; Susan Graham, RN; Stephen Hentschel, MD; Raymond Sawaya, MD

**HUNT WILSON LECTURE**

10:55–11:29 AM

**Speaker**

Marcus E. Raichle, MD

**602** 11:30–11:44 AM

**Robert Florin MD Award**

**Impact of Malpractice Environments on the US Neurosurgical Workforce 2005-2007**

**Authors**

Zachary N. Litvack, MD; Kim J. Burchiel, MD, FACS; Matthew A. Hunt, MD

**603** 11:45–11:59 AM

**Barrow Ruptured Aneurysm Trial****Authors**

Cameron G. McDougall, MD, FRCSC; Joseph M. Zabramski, MD; Felipe C. Albuquerque, MD; Robert C. Wallace, MD; Shahram Partovi, MD; Richard Clatterbuck, MD; Robert F. Spetzler, MD, FACS

**604** 12:00–12:14 PM

**International Abstract Award**

**Hypothalamic Stimulation for Chronic Cluster Headache: A Pluricentric Controlled Study**

**Authors**

Yves R. Lazorthes, MD; Nelly Fabre; Denis Fontaine; Jean-Christophe Sol; Patrick Mertens; Serge Blong; Michel Lantery-Minet

**CUSHING MEDAL PRESENTATION**

12:15–12:19 PM

**Introduction**

Jon H. Robertson, MD

**Recipient**

Charles B. Wilson, MD

**CUSHING ORATOR**

12:20–1:00 PM

**Speaker**

Douglas Brinkley, PhD

**LUNCH IN THE EXHIBIT HALL**

1:15–2:00 PM

**POSTER VIEWING IN THE EXHIBIT HALL**

2:00–2:45 PM

**NURSES LUNCHEON**

1:15–2:45 PM

**New Technologies and Strategies to Deal with Complex Hydrocephalus Cases**

**Moderator**

Ellen Barker, MSN, APN

**Speaker**

Sanjay Misra, MD

Sponsored by Aesculap, Inc.

See page 65 for more information.

**YOUNG NEUROSURGEONS LUNCHEON**

1:15–2:45 PM

**Moderator**

Jonathan A. Friedman, MD

**Speaker**

H. Hunt Batjer, MD, FACS

See page 64 for more information on Young Neurosurgeons activities.

**500** 2:00–4:30 PM **N&PE**

**Organ Donation and Procurement**

**Cost:** \$75

This session is free for Nurses and Physician Extenders

**Moderator**

Joseph Haymore, CRNP

**Speakers**

Kim A. Clark, PA; Alex B. Valadka, MD

See page 66 for more information

**SCIENTIFIC SESSION I—TUMOR**

2:45–5:15 PM

**Moderator**

Michael W. McDermott, MD

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.

**RONALD BITTNER LECTURER**

2:45–3:15 PM

**Pre-Clinical Trials in Genetically Engineered Mouse Models of Brain Tumors**

**Speaker**

Eric C. Holland, MD

**605** 3:16–3:30 PM

**A Phase I/II Clinical Trial Evaluating RNA-Loaded Dendritic Cells Targeting Human Cytomegalovirus in Patients with Newly-Diagnosed GBM**

**Authors:**

John H. Sampson, MD, PhD; Duane A. Mitchell, MD, PhD; Gary E. Archer, PhD; Sharon McGehee-Norman; Beth A. Perry, RN; Denise Lally-Goss, ANP-C; Robert Schmittling, PhD; Darell D. Bigner, MD, PhD; Allan H. Friedman, MD; Henry S. Friedman, MD; David A. Reardon, MD; James J. Vredenburgh, MD; James E. Herndon, PhD; Peter E. Fecci, MD, PhD

**606** 3:31–3:45 PM

**Association of Uncontrolled Hyperglycemia with Perioperative Mortality, Length of Hospitalization and Healthcare Cost for Resection of Supratentorial Brain Neoplasms**

**Authors**

Matthew J. McGirt, MD; Frank Attenello, MS; Muraya Gathinji, MS; Khoi Than, MD; Kaisorn L. Chaichana, BS; Ghazala Datoo, BS; Alessandro Olivi, MD; Jon D. Weingart, MD; Henry Brem, MD; Alfredo Quinones-Hinojosa, MD

**607** 3:46–4:00 PM

**Synthes Skull Base Award**

**The Natural History of Untreated Acoustic Neuromas: A Comprehensive Meta-Analysis**

**Authors**

Michael Sughrie, MD; Derick Aranda, MD; Isaac Yang, MD; Steven Cheung, MD; Andrew Parsa, MD, PhD

**608** 4:01–4:15 PM

**Association of Preoperative Depression and Survival After Primary Resection of Malignant Brain Astrocytoma**

**Authors**

Matthew J. McGirt, MD; Frank Attenello, MS; Muraya Gathinji, MS; Khoi Than, MD; Kaisorn L. Chaichana, BS; Ghazala Datoo, BS; Alessandro Olivi, MD; Jon D. Weingart, MD; Henry Brem, MD; Alfredo Quinones-Hinojosa, MD

**609** 4:16–4:30 PM

**National Brain Tumor Foundation Mahaley Award**

**Proliferative CD8 T Cell Infiltrate in Newly Diagnosed Glioblastoma Patients Correlates with Long Term Survival**

**Authors**

Andrew T. Parsa, MD, PhD; Tarik Tihan, MD; Margaret Wrensch, PhD

**610** 4:31–4:45 PM

**Long-Term Recurrences of Cushing's Disease After Initial Successful Transsphenoidal Surgery**

**Authors**

Chirag G. Patil, MD; Daniel M. Prevedello, MD; Shivanand P. Lad, MD, PhD; Mary Lee Vance, MD; Michael O. Thorner, MD; Laurence Katznelson, MD; Edward R. Laws, Jr., MD

**611** 4:46–5:00 PM

**Differential Proteomic Signatures Detected by MALDI Mass Spectrometry in Glioblastoma Multiforme**

**Authors**

John R. Floyd, MD; Reid Thompson, MD; Richard Caprioli, PhD; Mahlon Johnson, MD

**612** 5:01–5:15 PM

**The Value of Fiber Tractography with the 3-Tesla MRI System for Brainstem Surgery**

**Authors**

Ugur Ture, MD; Ahmet Hilmi Kaya, MD; Geysu Karlikaya, MD; Zeynep Firat, PhD; Hatice Ture, MD; Canan Aykut Bingol, MD; Ilhami Kovanlikaya, MD

**SCIENTIFIC SESSION II—SPINE**

**2:45–5:15 PM**

**Moderator**

Daniel K. Resnick, 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.

**613** 2:45–2:59 PM

**Visual Loss After Spine Surgery: A Population Based Study**

**Authors**

Shivanand P. Lad, MD, PhD; Chirag G. Patil, MD; Eleonora M. Lad, MD, PhD; Christopher Ho, BS; Maxwell Boakye, MD

**614** 3:00–3:14 PM

**Rodent Model of Perioperative Ischemic Optic Neuropathy**

**Authors**

Steven Roth, MD; Jason Waldinger, BS; John Dreixler, PhD; Afzal Shaikh, MS

**INVITED SPEAKER**

3:15–3:45 PM

**The Anatomic Principles of Intradural Spine Surgery**

Paul C. McCormick, MD

**615** 3:46–4:00 PM

**XLIF in the Treatment of Single-Level Lumbar Spondylolisthesis: 6 Month and 1 Year Follow-Up**

**Authors**

Curtis S. Cox, MD; W. B. Rodgers, MD; Edward J. Gerber, PA-C

**616** 4:01–4:15 PM

**Self-Reported Measures of Health Status as a Predictor of Operative vs. Conservative Management of Adult Deformity**

**Authors**

Kai-Ming Fu, MD, PhD; Justin Smith, MD; Christopher I. Shaffrey, MD

**617** 4:16–4:30 PM

**Perioperative Complications of Multi-level Thoracolumbar Spinal Fusions in Elderly Patients**

**Authors**

Jordan M. Cloyd, BA; Frank L. Acosta, Jr., MD; Christopher P. Ames, MD

**618** 4:31–4:45 PM

**Thoroscopic-Assisted Microsurgical Resection of Symptomatic Thoracic Disc Herniations**

**Authors**

Scott D. Wait, MD; Douglas J. Fox, MD; Gregory P. Lekovic, MD, PhD; Kathy J. Kenny, RN, MS, NP; Curtis A. Dickman, MD

**619** 4:46–5:00 PM

**Trends and Variations in Cervical Spine Surgery for Degenerative Disease in Medicare Beneficiaries, 1992-2005**

**Authors**

Marjorie C. Wang, MD, MPH; William Kreuter; Christopher Wolfla, MD; Dennis J. Maiman, MD, PhD; Richard A. Deyo, MD, MPH

**620** 5:01–5:15 PM

**PEMF Increases ACDF Fusion Rates in Patients 50 or Older**

**Author**

Kevin T. Foley, MD

**SCIENTIFIC SESSION III—  
STEREOTACTIC AND FUNCTIONAL**

**2:45–5:15 PM**

**Moderator**

Michael Schulder, MD

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.

**621** 2:45–2:59 PM

**Deep Brain Stimulation of the Ventral Internal Capsule/Ventral Striatum for Obsessive-Compulsive Disorder: World-Wide Experience**

**Authors**

Ali R. Rezai, MD; Loes Gabriels, MD; Benjamin Greenberg, MD, PhD; Donald Malone, MD; Gerhard Friehs, MD; Kelly Foote, MD; Andre Machado, MD, PhD; Michael Okun, MD; Nathan Shapira, MD, PhD; Paul Cosyns, MD; Kubu Cynthia, PhD; Paul Malloy, PhD; Steven Salloway, MD; Wayne Goodman, MD

**622** 3:00–3:14 PM

**Reinforcement Learning in the Basal Ganglia During Deep Brain Stimulation**

**Authors**

Kareem Zaghoul, MD, PhD; Justin Blanco, BSC; Kathryn McGill, MSN, ACNP; Michaux Kilpatrick, MD, PhD; Patrick Connelly, MD; Jurg L. Jaggi, PhD; Michael J. Kahana, PhD; Gordon H. Baltuch, MD, PhD

**623** 3:15–3:29 PM

**Gamma Knife Radiosurgery For Trigeminal Neuralgia: Comparison of the Root-Entry Zone and Retrogasserian Targets**

**Authors**

K. Singh Sahni, MD, FACS; Aditya Gupta, MD; Alfred M. Strash, PhD; Karla M. Mossi, PhD

**624** 3:30–3:44 PM

**Deep Brain Stimulation Does Not Affect Neurons in the Subthalamic Nucleus**

**Authors**

Jonathan D. Carlson, MD, PhD; Mary Heinricher, PhD; Justin Cetas, MD, PhD; Kim Burchiel, MD

**INVITED SPEAKER**

3:45–4:15 PM

**Adjusting the Dials on the Circuits of the Brain**

Andres M. Lozano, MD, PhD

**625** 4:16–4:30 PM

**The Safety of MRI after DBS Implantation Evaluated by Immediate and Delayed Serial Imaging**

**Authors**

Vaninder S. Chhabra, MD; Edward Sung, BS; Klaus Mewes, PhD; Robert E. Gross, MD, PhD

**626** 4:31–4:45 PM

**Gildenberg Resident Award  
Automated Visualization of Subthalamic Nucleus Border Location During Deep Brain Stimulation Surgery**

**Authors**

Shabbar F. Danish, MD; Gordon H. Baltuch, MD, PhD; Jurg Jaggi, PhD; Stephen Wong, MD

**627** 4:46–5:00 PM

**Epilepsy Surgery for Insular Lesions**

**Authors**

Marec von Lehe, MD; Joerg Wellmer, MD; Thomas Kral, MD; Horst Urbach, MD, Prof; Johannes Schramm, MD; Christian E. Elger, MD; Hans Clusmann, MD

**628** 5:01–5:15 PM

**Medically Intractable Temporal Lobe Epilepsy in Patients with Normal MRI: Surgical Outcome in Twenty-Four Consecutive Patients**

**Authors**

Adam P. Smith, MD; Richard W. Byrne, MD; Andres Kanner, MD; Sepehr Sani, MD; Matthew Morrin; Susan Palac, MD; Donna Bergen, MD; Antoaneta Balabanov, MD; Michael Smith, MD; Walter W. Whisler, MD, PhD

**SCIENTIFIC SESSION IV—PEDIATRICS**

**2:45–5:15 PM**

**Moderator**

Jeffrey H. Wisoff, 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.

**629** 2:45–2:59 PM

**Urinary Biomarkers Predict Brain Tumor Presence and Response to Therapy**

**Authors**

Edward R. Smith, MD; David Zurakowski, PhD; Ali Saad, MD; R. Michael Scott, MD; Marsha A. Moses, PhD

**630** 3:00–3:14 PM

**Long-Term Motor and Sensory Function After Resection of Intramedullary Spinal Cord Tumors in Children**

**Authors**

Matthew J. McGirt, MD; Kaisorn Chaichana, BS; Kevin Yao, MD; Frank Attenello, MS; George Jallo, MD

**631** 3:15–3:29 PM

**Clinical Predictors of Developmental Outcome in Patients with Cephaloceles**

**Authors**

Benjamin W. Y. Lo, MD; Andrew Jea, MD; James Rutka, MD, PhD; James Drake, MD, MSc; Peter Dirks, MD, PhD; Abhaya Kulkarni, MD, PhD; Maria Lamberti-Pasculli, RN; Lehana Thabane, PhD

**632** 3:30–3:44 PM

**The Effective Management of Complex CSF Shunt Infections: A Clinical Report**

**Authors**

Philipp R. Aldana, MD; Hector E. James, MD; John S. Bradley, MD

**633** 3:45–3:59 PM

**Characteristics of and Treatment Strategies for Intracranial Aneurysms in Children**

**Authors**

Francisco A. Ponce, MD; Robert F. Spetzler, MD, FACS; Kumar Kakarla, MD; Joseph Zabramski, MD

**634** 4:00–4:14 PM

**Pathogenesis of Epilepsy in Children Who Were Born Preterm: A Translational Study**

**Author**

Shenandoah Robinson, MD

**INVITED SPEAKER**

4:15–4:45 PM

**Pediatric Neurosurgery: The Establishment of a Subspecialty**

Marion L. Walker, MD

**635** 4:46–5:00 PM

**Endoscopic Options in Children: Experience with 125 Procedures**

**Authors**

Joachim M. Oertel, DR; Joerg Baldauf, DR; Henry WS Schroeder, DR; Michael R. Gaab, DR

**636** 5:01–5:15 PM

**Incidence, Associations and Clinical Significance of Cerebrospinal Fluid Eosinophilia in Children with Ventricular Shunts**

**Authors**

Daniel H. Fulkerson, MD; Joel C. Boaz, MD

**SCIENTIFIC SESSION V—  
CEREBROVASCULAR**

**2:45–5:30 PM**

**Moderator**

Robert H. Rosenwasser, 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.

**637** 2:45–2:59 PM

**Histopathological Changes in Brain AVMs After Embolization with ONYX® or n-BCA**

**Authors**

Sabareesh K. Natarajan, MD, MS; Donald Born, MD, PhD; Basavaraj Ghodke, MD; Gavin W. Britz, MD, MPH; Laligam N. Sekhar, MD, FACS

**653** 3:00–3:14 PM

**Automated, Compliant, High-Flow Common Carotid to Middle Cerebral Artery Bypass**

**Authors**

Ralph G. Dacey, Jr., MD, Greg Zipfel, MD, William Ashley, MD, PhD, Michael Chicoine, MD, Michael Reinert, MD

**639** 3:15–3:29 PM

**Surgical Management of Brainstem Cavernous Malformations**

**Authors**

Gregory P. Lekovic, MD, PhD; L. Fernando Gonzalez, MD; Randall Porter, MD; Jean de Oliveira, MD; Robert F. Spetzler, MD

**640** 3:30–3:44 PM

**Durability of Microsurgical Clipping of Unruptured MCA Aneurysms: Long Term Follow-Up by Multislice Computerized Tomography (MSCT) Angiography**

**Authors**

Niklaus Krayenbuhl, MD; Stefano Binaghi, MD; Antoine Uske, MD; Amir Dehdashti, MD; Luca Regli, MD

**641** 3:45–3:59 PM

**Partial Aortic Obstruction Improves Cerebral Perfusion in Patients with Symptomatic Vasospasm: Mid Term Follow Up**

**Authors**

Juan Carlos Miranda, MD; Angel Ferrario, MD; Rosana Ceratto, MD; Luciano Langui, MD; Ricardo Romero, MD; Pedro Lylyk, MD

**642** 4:00–4:14 PM

**Comparison of Coil Types in Aneurysm Recurrence**

**Authors**

Shah-Naz H. Khan, MD; Christopher Nichols, MD; Todd A. Abbruzzo, MD; Andrew J. Ringer, MD

**643** 4:15–4:29 PM

**Multimodality Treatment of Dural AV Fistulas-Evolution of Treatment**

**Authors**

Sabareesh K. Natarajan, MD, MS; Laligam N. Sekhar, MD, FACS; Gavin W. Britz, MD, MPH; Louis J. Kim, MD; Danial K. Hallam, MD; Basavaraj Ghodke, MD

**644** 4:30–4:44 PM

**Does Country or Continent of Treatment Affect Outcome After Aneurysmal Subarachnoid Hemorrhage?**

**Author**

R. Loch Macdonald, MD, PhD, FRC

**INVITED SPEAKER**

4:45–5:15 PM

Robert H. Rosenwasser, MD, FACS

**638** 5:16–5:30 PM

**Post Market Carotid Artery Stenting Results for High Risk Symptomatic Patients and AHA Guidelines for Stroke and Death**

**Author**

L. Nelson Hopkins, MD; Elad I. Levy, MD

## SCIENTIFIC SESSION VI— NEUROTRAUMA

2:45–5:15 PM

### Moderator

P. David Adelson, MD, FACS

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.

**645** 2:45–2:59 PM

### Results of a Prospective, Multicenter Phase I/IIa Clinical Trial to Evaluate Safety and Preliminary Efficacy of a Recombinant Rho Inhibitor (Cethrin) in Severe Acute Spinal Cord Injury

#### Authors

Michael G. Fehlings, MD, PhD, FRC; Gilles Maurais, MD, FRCSC; Nicholas Theodore, MD; James Harrop, MD; Charles Kuntz, MD; Brian Kwon, MD, PhD, FRC; Jens Chapman, MD; Albert Yee, MD, FRCSC

**646** 3:00–3:14 PM

### Temporal Relationship Between ICP & PbtO<sub>2</sub> in Acute Brain Pathology; The Role of Real-Time Analysis Using Symbolic Regression

#### Authors

John F. Morrison, MS; Michael D. Schmidt, MSE; Matthew C. Ringgenberg, BS; Narendra Nathoo, MD, PhD; Pradeep K. Narotam, MD, FACS

**647** 3:15–3:29 PM

### Endovascular Treatment of Traumatic Intracranial Aneurysms

#### Authors

Ricardo Segal, MD; Jose E. Cohen, MD; John M. Gomori, MD; Alex Spivak, MD; Emil Margolin, MD; Gil Svirin, MD; Gustavo Rajz, MD; Sergey Spektor, MD

## INVITED SPEAKER

3:30–4:00 PM

### Neurotrauma at the Crossroads: A View of Our Subspecialty in 2018

M. Sean Grady, MD

**648** 4:01–4:15 PM

### The Effects of Intrathecal Hypotension on Tissue Perfusion and Pathophysiological Outcome Following Acute Spinal Cord Injury

#### Authors

Eric M. Horn, MD, PhD; Nicholas Theodore, MD; Rachid Assina, BS; Robert Spetzler, MD; Volker Sonntag, MD; Mark Preul, MD

**649** 4:16–4:30 PM

### Synthes Resident Craniofacial Award Management Strategies and Outcomes for Pediatric Patients with Severe TBI and Refractory<sup>®</sup> ICP

#### Authors

Jayant Jagannathan, MD; David O. Okonkwo, MD, PhD; Kwang H. Yeoh, BSC; Dwight Saullé, BA; Aaron S. Dumont, MD; Rod J. Oskouian, MD; Charles A. Sansur, MD; John A. Jane, Sr., MD; John A. Jane, Jr., MD

**650** 4:31–4:45 PM

### The Value of Postoperative Computed Tomography in Cranial Cases

#### Authors

Ahmad Khaldi, MD; Vikram C. Prabhu, MD, FACS; Douglas E. Anderson, MD; T. C. Origitano, MD, PhD

**651** 4:46–5:00 PM

### Transverse Process Fractures Do Not Warrant Neurosurgical Consultation or Involvement

#### Authors

Wayne C. Paullus, MD; Lucas H. Bradley; Norman S. Litofsky, MD, FACS; James R. Howe, MD

**652** 5:01–5:15 PM

### Diminution in Pain in Acute Spinal Cord Injury Treated with Oscillating Field Stimulation

#### Authors

Scott Shapiro, MD; Richard B. Borgens, PhD; Richard B. Rodgers, MD; Jamie Bradbury, MD

## BUSINESS MEETING

5:30–6:30 PM

## TUMOR RECEPTION

5:30–8:00 PM

## HISTORY SECTION DINNER

6:00–10:00 PM

### DON'T MISS THE AANS HISTORY SECTION ANNUAL DINNER

The Metropolitan Club located in the Sears Tower  
Cost per person: \$135

Attend this year's annual dinner of the American Association of Neurological Surgeons History Section at The Metropolitan Club located in the Sears Tower.

Enjoy an evening filled with sweeping panoramic views of Lake Michigan and the Chicago skyline from North America's tallest building, the Sears Tower.

The Metropolitan Club, founded in 1974, is the premiere business and social club in Chicago, located in the heart of the Loop. Their seasonal menu offers American cuisine with a European flair prepared by an exceptional culinary staff.

The newly remodeled private event space, located on the 66th floor of the Sears Tower, offers magnificent views of Chicago's skyline, major landmarks, and incredible lakeshore.

The evening will consist of a tour of the Sears Tower Skydeck, a plated meal and a lecture by Dr. Christopher Goetz from Rush Medical Center.

The Sears Tower is centrally located in the heart of the "Loop," and is easily accessible by subway or cab.

Join us for a memorable evening at this historic location!