

## Lodging and Location

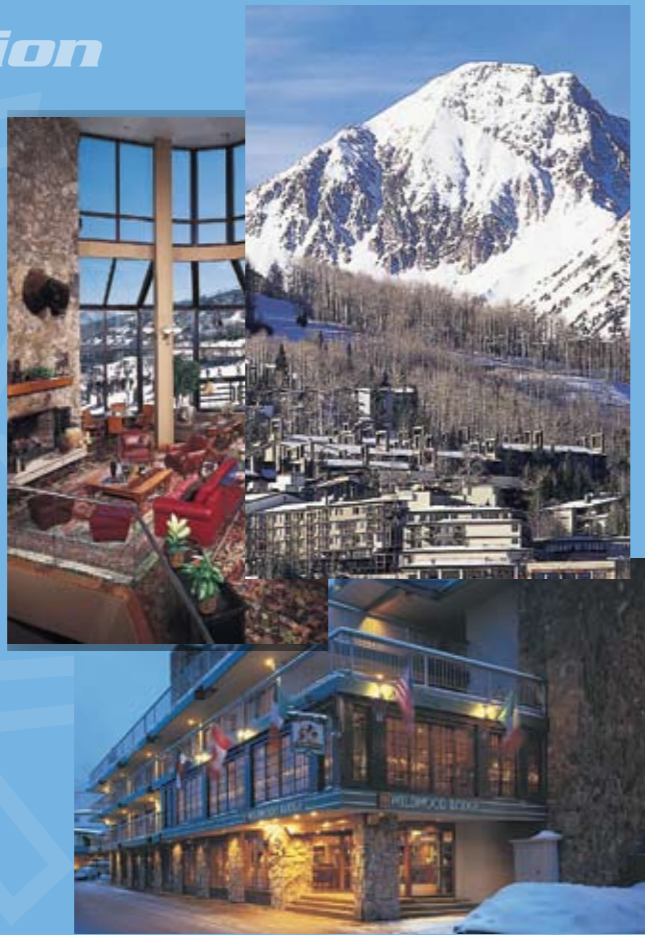
Snowmass Village is a beautiful resort area perfect for wintertime fun. Nestled in the Colorado Rockies, Snowmass provides a serene backdrop for skiing, snowboarding, shopping, dining, and relaxing.

**The Silvertree Hotel** is the Village's only full-service, ski-in, ski-out hotel. Improvements include a remodel of all public areas of the hotel and the addition of high-speed, wireless Internet access throughout The Silvertree Hotel, Wildwood Lodge and the Snowmass Conference Center.

**The Wildwood Lodge**, offers the relaxed atmosphere and comfort of a mountain lodge.

**Village Property Management Condominiums** offers value-priced studios to spacious, private residences. Accommodations are available directly on the slopes or just a short shuttle ride away.

When you register for the conference, remember to make lodging reservations as well. The Silvertree Hotel, Wildwood Lodge, and Village Property Management are holding a limited number of rooms at a discounted price until January 15, 2009. To make reservations, call (800) 525-9402. Reservations will be accepted based on availability.



### Tuition

<b>Full Program</b>	<b>\$1300</b>
<b>Spinal Program Only</b> (Feb. 22-24)	<b>\$1100</b>
<b>Cranial Program Only</b> (Feb. 24-Feb. 26)	<b>\$1100</b>
<b>Residents/Fellows, Nurses, Physician Assistants</b>	<b>\$600</b>
(Full Program Only)	

For more detailed information and to register, visit [www.winterclinics.com](http://www.winterclinics.com).

Registration deadline: February 6, 2009

## Exhibitors\*

**stryker**

**INTEGRA**

**SYNTHES**

**COVIDIEN**

**GLOBUS MEDICAL**

**Trans1**

Aesculap, Inc. • Anspach Companies • DePuy Spine • K2M, Inc. Orthovita, Inc. • Zimmer Spine

\* as of November 21, 2008

## Faculty

**Cedars-Sinai Center for Spinal Disorders**  
Neel Anand, MD  
J. Patrick Johnson, MD

**Cleveland Clinic**  
Joung H. Lee, MD  
R. Douglas Orr, MD  
J. Javier Provencio, MD  
Richard Schlenk, MD  
Michael P. Steinmetz, MD  
Glen H.J. Stevens, DO, PhD  
Michael A. Vogelbaum, MD, PhD, FACS

**Desert Institute for Spine Care, PC**  
Anthony T. Yeung, MD

**Harvard University**  
Michael W. Groff, MD

**Integra LifeSciences Corporation**  
Simon J. Archibald, PhD

**Louisiana State University**  
Bharat Guthikonda, MD

**Mayo Clinic**  
Douglas Chyatte, MD  
Marie-Noelle Hebert-Blouin, MD  
Michael J. Link, MD  
Eric W. Nottmeier, MD  
Alice C. Patton, MD  
Robert J. Spinner, MD

**Methodist Neurological Institute**  
Paul Holman, MD  
Richard Klucznik, MD  
Robert G. Parrish, MD, PhD  
Richard K. Simpson, Jr., MD, PhD  
Y. Jonathan Zhang, MD

**Michigan Head & Spine Institute**  
Mick J. Perez-Cruet, MD

**Neurosurgical Center Zwolle**  
Dick J. Zeilstra, MD

**Norman Regional Hospital**  
Shon Cook, MD

**Northwestern University**  
Richard G. Fessler, MD, PhD

**Oregon Health & Science University**  
Edmund Frank, MD, FACS

**Semmes-Murphey Neurologic & Spine Institute**  
Claudio A. Feler, MD

**Springfield Neurological Institute**  
Chad J. Morgan, MD

**Johns Hopkins Medical Institutions**  
Daniel F. Hanley, MD

**Thomas Jefferson University Hospital**  
David W. Andrews, MD

**University Hospital Mannheim**  
Claudius F.C. Thomé, MD

**University of California, San Francisco**  
Michael T. Lawton, MD

**University of California, Los Angeles**  
Larry T. Khoo, MD

**University of Cincinnati / Mayfield Clinic**  
Jordan Bonomo, MD  
Lindsey A. Nelson, MD  
Lee Zimmer, MD, PhD, FACS  
Robert J. Bobinski, MD, PhD  
Jeffrey T. Keller, PhD  
Charles Kuntz, IV, MD  
George T. Mandybur, MD, FACS  
Christopher M. McPherson, MD  
Andrew J. Ringer, MD  
Lori Shutter, MD  
John M. Tew, Jr., MD  
Philip V. Theodosopoulos, MD  
William D. Tobler, MD

**University of Crete**  
Alexander G. Hadjipavlou, MD, MSc, FRCS, FACS

**University of Michigan**  
John E. McGillicuddy, MD

**University of Pennsylvania**  
Donald M. O'Rourke, MD  
Eric L. Zager, MD

**University of Pittsburgh**  
Michael W. Collins, PhD  
Amin Kassam, MD

**University of South Florida**  
Harry R. van Loveren, MD

**University of Strasbourg**  
Sebastien Froelich, MD

**University of Texas M.D. Anderson Cancer Center**  
Nicholas B. Levine, MD

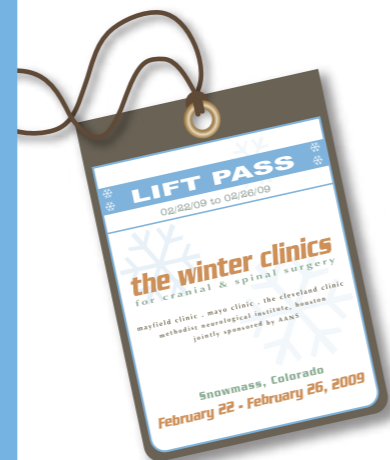
**Washington University**  
Neill M. Wright, MD



2009

**MAYFIELD**  
CLINIC

506 Oak Street  
Cincinnati, Ohio 45219



PRESORTED  
FIRST CLASS  
U.S. POSTAGE  
PAID  
CINCINNATI, OH  
PERMIT NO. 6657

**the winter clinics**  
for cranial & spinal surgery

mayfield clinic • mayo clinic • the cleveland clinic  
methodist neurological institute, houston  
jointly sponsored by AANS

**Snowmass, Colorado**

**Sunday, Feb. 22 - Thursday, Feb. 26, 2009**



Be part of the nation's most exciting cranial, spine and nerve meeting, located at the beautiful Silvertree Hotel in Snowmass Village, Colorado.

## Objectives

**Intended audience:** neurosurgeons, orthopaedic surgeons, neurosurgical residents, fellows, nurse practitioners and physician assistants

Upon completion of this educational activity, participants should be able to:

- Summarize the minimalist approach to ordinary and extraordinary cranial and spinal surgery.
- Review neurocritical care issues in cranial and spinal patients.
- Summarize and evaluate minimally invasive and traditional open spine surgery techniques.
- Assess and evaluate kyphoplasty and vertebroplasty.
- Evaluate the treatment of spinal deformity and traumatic spinal injury.
- Describe the latest treatment modalities for cervical spine surgery including cervical arthroplasty.
- Introduce and evaluate new technologies related to the treatment of spinal column pathology.
- Review and evaluate the treatment of degenerative spinal disease.
- Discuss and evaluate the treatment of peripheral nerve injuries and tumors.
- Review treatment principles for traumatic brain injury and neurocritical care.
- Discuss medical and surgical management of intracerebral hemorrhage.
- Discuss the avoidance of complications in skull base surgery.
- Discuss the natural history, surgical and radiotherapeutic treatment of intracranial meningiomas.
- Review the application of Deep Brain Stimulation for movement disorders.
- Discuss intrathecal drug delivery.
- Discuss stereotactic placement of ventricular catheters.
- Discuss carotid stenting and EC-IC bypass surgery.
- Discuss the inferior (exocranial) aspect of the skull base.

## CME

This activity has been planned and implemented in accordance with the Essentials and Standards of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the AANS and the Mayfield Clinic. The AANS is accredited by the ACCME to provide Continuing Medical Education for physicians.

The AANS designates this educational activity for a maximum of 25 AMA PRA Category 1 Credit(s)<sup>™</sup>. Physicians should only claim credit commensurate with the extent of their participation in the activity.

### Sunday, February 22, 2009

#### 7:00 - 9:30am: Deformity / Trauma

**Moderator:** R. Douglas Orr, MD

**Normal Neutral Upright Spinal Alignment**  
Charles Kuntz IV, MD

**Minimally Invasive IB Fusion for Deformity Correction**  
J. Patrick Johnson, MD

**Techniques for Sagittal Plane Correction**  
Robert J. Bohinski, MD, PhD

**Cervical Fusion to C7: Include the C-T Junction**  
Edmund Frank, MD, FACS

**Prevention and Treatment of Iatrogenic Deformity**  
R. Douglas Orr, MD

**Hematogenous Pyogenic Infections**  
Alexander G. Hadjipavlou, MD, MSc, FRCS, FACS

**Case Discussion – Geriatric Deformity: Conservative vs. Aggressive Surgical Management**  
Moderator – Robert J. Bohinski, MD, PhD  
Conservative – J. Patrick Johnson, MD  
Aggressive – Neel Anand, MD

#### 4:00 - 6:30pm: Minimally Invasive Spine

**Moderator:** William D. Tobler, MD

**MIS Application in Patients “Who are Not Surgical Candidates”**  
Richard G. Fessler, MD, PhD

**MIS TLIF with Unilateral Pedicle Screws**  
Michael P. Steinmetz, MD

**Kyphoplasty/Vertebroplasty**  
Richard Schlenk, MD

**O-Arm for Percutaneous Lumbar Instrumentation**  
Paul Holman, MD

**Foraminal Endoscopic Surgery for Degenerative Lumbar Spine Disease**  
Anthony T. Yeung, MD

**Case Discussion – Open vs. Minimally Invasive Surgery**  
Moderator – Richard G. Fessler, MD, PhD  
Open – Charles Kuntz IV, MD  
MIS – Mick J. Perez-Cruet, MD



### Monday, February 23, 2009

#### 7:00 - 9:30am: Cervical Spine

**Moderator:** Chad J. Morgan, MD

**Stand Alone Cervical Discectomy**  
Michael W. Groff, MD

**C1-2 Options for Fixation**  
Neill M. Wright, MD

**Cervical Laminoplasty Indication/Results**  
William D. Tobler, MD

**Procedural Radiography Orientation Device for Spine Surgery**  
Robert G. Parrish, MD, PhD

**Measuring Patient Satisfaction**  
Douglas Chyatte, MD

**Case Discussion – ACDF vs. Cervical Arthroplasty**  
Moderator – Michael W. Groff, MD  
ACDF – R. Douglas Orr, MD  
Cervical Arthroplasty – Chad J. Morgan, MD

#### 4:00 - 6:30pm: New Technologies

**Moderator:** Richard Schlenk, MD

**Lateral Extracavitary Approach in 52 Patients: MIS Evaluation**  
Larry T. Khoo, MD

**Stem Cell Application to Intervertebral Disc Disease**  
Mick J. Perez-Cruet, MD

**Posterior Non-Fusion Stabilization**  
Neel Anand, MD

**European Experience with Pre-Sacral Fusion and Motion Preservation**  
Dick J. Zeilstra, MD

**Complications of BMP and Optimal Dosing**  
Eric W. Nottmeier, MD

**Analysis of Fusion Outcomes in Pre-Sacral Fusion**  
William D. Tobler, MD

**Annular Reconstruction Device**  
Claudius F.C. Thomé, MD

**Case Discussion – BMP for Cervical Fusion vs. Alternative Techniques**  
Moderator – Larry T. Khoo, MD  
BMP – Robert J. Bohinski, MD, PhD  
Alternative Techniques – Neill M. Wright, MD



### Tuesday, February 24, 2009

#### 7:00 - 9:30am: Peripheral Nerve

**Moderator:** Robert J. Spinner, MD

**Anatomy of the Lumbosacral Plexus and Lower Extremity**  
Eric L. Zager, MD

**Lumbar Radiculopathy vs. Lower Extremity Neuropathy**  
John E. McGillicuddy, MD

**Management of Intrapelvic Nerve Tumors**  
Marie-Noelle Hebert-Blouin, MD & Robert J. Spinner, MD

**Endoscopic Carpal Tunnel**  
Shon Cook, MD

**Measuring Outcomes in Peripheral Nerve Surgery**  
Robert J. Spinner, MD

**Proving Entubulation Nerve Repair: Not Finished Yet?**  
Simon J. Archibald, PhD

**Case Discussion**

#### 4:00 - 6:30pm: TBI / Neurocritical Care

**Moderator:** Lori Shutter, MD

**Mild Traumatic Brain Injury**  
Michael W. Collins, PhD

**Illustrative Case Presentation & Discussion**  
Michael W. Collins, PhD

**OR Management of Neurosurgical Patients**  
Lindsey A. Nelson, MD

**Illustrative Case Presentation & Discussion**  
Lindsey A. Nelson, MD

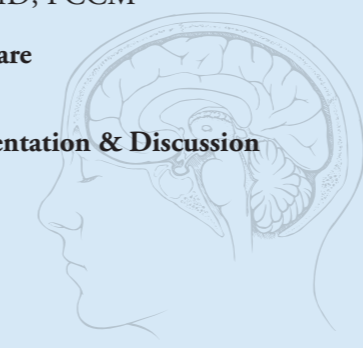
**Inflammation after Neurological Injury**  
J. Javier Provencio, MD, FCCM

**Illustrative Case Presentation & Discussion**  
J. Javier Provencio, MD, FCCM

**Basic Neurocritical Care**  
Lori Shutter, MD

**Illustrative Case Presentation & Discussion**  
Lori Shutter, MD

**Discussion**



### Wednesday, February 25, 2009

#### 7:00 - 9:30am: Intracerebral Hemorrhage

**Moderator:** Andrew J. Ringer, MD

**The Initial Management, Assessment, and Critical Care of ICH**  
Jordan Bonomo, MD

**Imaging Studies in ICH: Indications for Vascular and Functional Imaging**  
Alice C. Patton, MD

**Reversal of Medical Coagulopathy in the Patient with ICH**  
Andrew J. Ringer, MD

**ICH: The Case for Medical Management**  
J. Javier Provencio, MD, FCCM

**ICH: The Case for Surgical Management**  
Daniel F. Hanley, MD

**Panel Discussion & Cases**

#### 4:00 - 6:30pm: Skull Base Surgery

**Moderator:** Jeffrey T. Keller, PhD

**Skull Base Surgery: What Not To Do**

**Arteries**  
Michael T. Lawton, MD

**Veins**  
Sebastien Froelich, MD

**Cerebrospinal Fluid**  
Harry R. van Loveren, MD

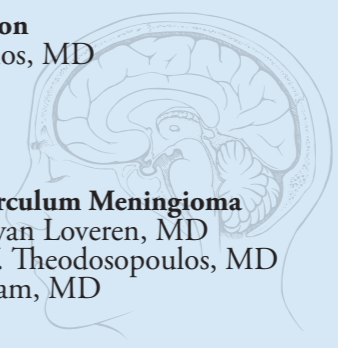
**Leaks**  
Lee Zimmer, MD, PhD, FACS

**Subcranial**  
Amin Kassam, MD

**Skull Base Reconstruction**  
Philip V. Theodosopoulos, MD

**Cranial Nerve Injury**  
Michael J. Link, MD

**Case Discussion – Tuberculum Meningioma**  
Moderator – Harry R. van Loveren, MD  
Cranial MIS – Philip V. Theodosopoulos, MD  
Endo T/S – Amin Kassam, MD



### Thursday, February 26, 2009

#### 7:00 - 9:30am: Neuro-oncology

**Moderator:** Christopher M. McPherson, MD

**Meningiomas: The Natural History**  
Joung H. Lee, MD

**Imaging Features of Meningioma**  
Donald M. O'Rourke, MD

**Management of Falcine Meningioma**  
Nicholas B. Levine, MD

**Management of Anterior Fossa Meningiomas**  
John M. Tew, Jr., MD

**Stereotactic Radiotherapy**  
David W. Andrews, MD

**Atypical and Anaplastic Meningiomas**  
Christopher M. McPherson, MD

**Molecular Targeting Strategies for Meningiomas**  
Glen H.J. Stevens, DO, PhD

**Convection Enhanced Delivery to the Brain**  
Michael A. Vogelbaum, MD, PhD, FACS

**Case Discussion: Asymptomatic Meningiomas**

#### 4:00 - 6:30pm: General Neurosurgery

**Moderators:** George T. Mandybur, MD, FACS & Jeffrey T. Keller, PhD

**Methods of EC-IC Bypass, A New Age for a Traditional Operation?**  
Y. Jonathan Zhang, MD

**Stereotactic Placement of Ventricular Catheters: Does it Decrease Malfunction Rates?**  
Bharat Guthikonda, MD

**Intrathecal Drug Delivery**  
Claudio A. Feler, MD

**Deep Brain Stimulation**  
George T. Mandybur, MD, FACS

**DBS for Movement Disorders: Patient Selection, Technique & Outcome**  
Richard K. Simpson, Jr., MD, PhD

**Early Results of the CREST Trial (Carotid Stenting)**  
Richard Klucznik, MD

**The Other Skull Base**  
Jeffrey T. Keller, PhD

**Case Discussion**

