Current Techniques in the Treatment of Cranial and Spinal Disorders

11th Annual Symposium

Saturday, October 18, 2014
Omni Interlocken Resort
Broomfield, Colorado

A conference for orthopedic spine surgeons, neurosurgeons, neurologists, physical medicine and rehabilitation physicians, pain management physicians, primary care physicians, physician assistants, residents, fellows, nurses, physical therapists and other health care providers interested in the most innovative technologies and the latest evidence-based clinical guidelines in the care of cranial and spinal disorders

Jointly provided by AANS and JPNI

www.jpni.org/educational-programs/jpni-symposium
Advancing scientific discoveries and innovative medical technologies into clinical practice and disseminating to the medical community

The 11th Annual Symposium, *Current Techniques in the Treatment of Cranial and Spinal Disorders*, is facilitated by Boulder Neurosurgical & Spine Associates (BNA) and the Justin Parker Neurological Institute (JPNI). This live educational activity offers a series of innovative presentations regarding the latest advancements and treatment considerations in cranial, orthopedic and neurosurgical spine technology. After careful consideration and identification of the most significant subject matter, this year’s series of innovative presentations will include common controversial spine diagnoses, neurosurgical trauma from a trauma surgeon’s perspective, new and exciting approaches to chronic pain management, and debates on SI-Joint fusions and rhBMP-2.

JPNI is a fully accredited 501(c)(3) nonprofit organization whose principle purpose is to conduct clinical research and improve clinical outcomes. The mission of JPNI is to advance scientific discoveries and innovative medical technologies into clinical practice by conducting clinical trials in order to implement best practices and disseminate to the medical community. JPNI also provides fellowship and internship opportunities to neurosurgical and orthopedic spine surgeons and students pursuing careers in medicine.

**CHAIRMAN OF THE BOARD**

**Alan Villavicencio, MD**

Dr. Villavicencio graduated from Harvard Medical School in Boston, MA in 1995 and completed a neurosurgical residency at Duke University and specialty orthopedic spine surgery fellowship at Cedars-Sinai Medical Center. He is one of only a handful of surgeons in the country with dual neurosurgery and orthopedic spine training. Dr. Villavicencio is the Founder and Chairman of the Board for the Justin Parker Neurological Institute.
Allan H. Friedman, MD is an internationally recognized tumor neurosurgeon, having given over 500 national and international talks and published 300+ peer-reviewed papers and textbook chapters. Dr. Friedman operates on hundreds of malignant intrinsic brain tumors each year. Working with the pathologists, he is responsible for banking several thousand specimens which are available for research purposes. Dr. Friedman is Deputy Director of The Preston Robert Tisch Brain Tumor Center and co-director of the Clinical Oncology Program at Duke University. Dr. Friedman is associate director of the Preuss Laboratory for Brain Tumor Research. Dr. Friedman has also been appointed Vice Chair of Administration, Department of Surgery. Dr. Friedman has a special interest in treating patients harboring malignant brain tumors. He has a long history of collaborating with basic scientists at Duke in probing the underlying biology of brain tumors and developing new therapy for brain tumors.
Course Description
This live educational activity will review and provide updates on the latest advances in the treatment of cranial and spinal neurosurgical and orthopedic issues. Each of the four sessions will provide an intensive, practical review from a panel of experts in the field—with emphasis on evidence-based approaches in the fields of neurosurgery and orthopedic spine technology.

Audience Response System
In order to further promote the educational and interactive environment of our symposium, we will be using an audience response system (ARS) during each of the presentations. Each speaker will pose five multiple choice questions during or at the end of their presentation. Each audience member will have a clicker to respond to the question posed, and we will poll the audience’s response in real time and present the results immediately after. The real-time polling will allow for further discussion of the topics and will encourage a stronger interaction between the speakers and attendees.

Learning Objectives
Upon completion of this live activity, participants should be able to:
1) Discuss recommendations for treatment of spinal and cranial disorders based on the latest scientific findings and evidence-based clinical practice guidelines.
2) Demonstrate an extended understanding of multidisciplinary care in treating patients with cranial and spinal disorders.
3) Identify a number of new treatments and innovative technologies that are available for the management of cranial and spinal disorders.

Registration
The registration fee for this live event is $75 and includes tuition, continental breakfast, lunch, afternoon snack and beverages, as well as educational materials including presentations and CVs for all speakers in the form of a binder or CD. The early registration deadline is Friday, October 10, 2014 at 12 a.m. Registration will increase from $75 to $90 beginning Saturday, October 11, 2014. Dinner and cocktails are an additional $30. Please return the Attendance Verification form and your completed Evaluation form to the registration tables prior to departure.

AANS Disclosure
Before the program, anyone in control of the educational content of this activity will disclose the existence of any financial interest and/or the relationship they or their significant other have with the manufacturer(s) of any commercial product(s) to be discussed during their presentation. Disclosures will be included in the final program.

Materials
- Check-in at the registration table the day of the symposium to obtain an agenda and to receive a binder or CD including all presentations, as well as doctor CVs and AANS documentation.
- Attendance verification forms will be available at the registration table and must be completed and returned no later than Friday, October 31, 2014 to obtain CME certificates. Forms not returned the day of the event can be faxed to 303.998.0007, Attn: Frances, or emailed to francesc@bnasurg.com.
- Evaluation forms will be available for completion during the symposium and can be returned to the registration table. These are very important and utilized for future planning.
<table>
<thead>
<tr>
<th>TIME</th>
<th>SPEAKER</th>
<th>TOPIC</th>
<th>CME</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00-7:30am</td>
<td></td>
<td>Continental Breakfast and Registration</td>
<td></td>
</tr>
<tr>
<td>7:30-7:35am</td>
<td></td>
<td>Welcome</td>
<td></td>
</tr>
<tr>
<td>7:35-8:15am</td>
<td>Greg Arends, MD</td>
<td>Common Controversial Spine Diagnoses</td>
<td>2.0</td>
</tr>
<tr>
<td>8:15-8:55am</td>
<td>Sharad Rajpal, MD</td>
<td>The Argument For SI-Joint Fusions</td>
<td></td>
</tr>
<tr>
<td>8:55-9:35am</td>
<td>Alan Villavicencio, MD</td>
<td>The Argument Against SI-Joint Fusions</td>
<td></td>
</tr>
<tr>
<td>9:35-10:00am</td>
<td></td>
<td>Break/Exhibition</td>
<td></td>
</tr>
<tr>
<td>10:00-10:40am</td>
<td>Alan Zacharias, MD</td>
<td>Interesting Case Presentations in Neurology</td>
<td>2.0</td>
</tr>
<tr>
<td>10:40-11:20am</td>
<td>Walt Biffi, MD</td>
<td>Neurosurgical Trauma from a Trauma Surgeon’s Perspective</td>
<td></td>
</tr>
<tr>
<td>11:20-12:00pm</td>
<td>David Shafer, MD</td>
<td>Concussion: A Perfect Storm for Education and Advocacy</td>
<td></td>
</tr>
<tr>
<td>12:00-1:00pm</td>
<td></td>
<td>Lunch/Exhibition</td>
<td></td>
</tr>
<tr>
<td>1:00-1:40pm</td>
<td>Chloe Dent, MD</td>
<td>New and Exciting Approaches to Chronic Pain Management</td>
<td>2.0</td>
</tr>
<tr>
<td>1:40-2:20pm</td>
<td>E. Lee Nelson, MD</td>
<td>Using rhBMP-2 in Spine Surgery: The Good</td>
<td></td>
</tr>
<tr>
<td>2:20-3:00pm</td>
<td>Alexander Mason, MD</td>
<td>Using rhBMP-2 in Spine Surgery: The Bad and The Ugly</td>
<td></td>
</tr>
<tr>
<td>3:00-3:25pm</td>
<td></td>
<td>Break/Exhibition</td>
<td></td>
</tr>
<tr>
<td>3:25-4:05pm</td>
<td>Susan Biffi, MD</td>
<td>Marijuana Use and the Detrimental Effect on Traumatic Brain Injury Rehab Recovery</td>
<td>1.5</td>
</tr>
<tr>
<td>4:05-4:55pm</td>
<td>KEYNOTE: Allan Friedman, MD</td>
<td>Awake Craniotomies for Brain Tumors</td>
<td></td>
</tr>
<tr>
<td>4:55-5:00pm</td>
<td></td>
<td>Adjournment and Closing Remarks</td>
<td></td>
</tr>
<tr>
<td>5:00-8:00pm</td>
<td></td>
<td>Reception and Dinner (Optional)</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Total Available Credits</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**REGISTER TODAY**

Go online: [www.jpni.org/educational-programs/jpni-symposium](http://www.jpni.org/educational-programs/jpni-symposium) to pay by check or credit card.

Call: 303.938.5700 to pay by check or credit card.

Mail your check to: JPNI, Attn: Symposium 2014, 4743 Arapahoe Avenue, Suite 202, Boulder, CO 80303.
Faculty and Speakers

**Greg Arends, MD**
Dr. Arends specializes in diagnostic and therapeutic spinal injections and interventional techniques. He received his MD from the Wayne State University School of Medicine and completed his residency in Physical Medicine and Rehabilitation at the Rehabilitation Institute of Chicago and Northwestern University. He is board-certified, and fellowship-trained in Interventional Spine.

**Susan Biffl, MD**
Dr. Biffl received her MD and completed her residency and fellowship at the University of Colorado School of Medicine. She is Board-Certified in Physical Medicine and Rehabilitation (PM&R) and belongs to the American Academy of Physical Medicine and Rehabilitation and Association of Children's Prosthetic-Orthotic Clinics. Dr. Biffl also works part-time at Denver Health. Dr. Biffl’s clinical specialties include amputee clinic, EMG/NCS, cerebral palsy, and brain injury.

**Walt Biffl, MD**
Dr. Biffl earned his MD from George Washington University. He performed his surgical training at the University of Colorado Health Sciences Center, including a two-year NIH-sponsored Trauma Research Fellowship. Dr. Biffl has held positions as faculty at Denver Health Medical Center and Chief of the Division of Trauma and Surgical Critical Care at Brown Medical School. He is currently Associate Director of Surgery at Denver Health and Trauma Medical Director at Boulder Community Health. He is Professor of Surgery at University of Colorado Denver School of Medicine.

**Chloe Dent, MD**
Dr. Dent received her medical degree from Case Western Reserve University in Cleveland. She completed her anesthesiology residency at the Medical College of Wisconsin in Milwaukee and a fellowship in Pain Medicine at the University of Colorado. She is board certified in Pain Medicine and Anesthesiology.

**Alexander Mason, MD**
Dr. Mason received his MD from Ohio State University College of Medicine and completed his residency at the Cleveland Clinic Foundation with interests in neurovascular, complex and minimally invasive spine, neuro-oncology and surgical epilepsy. His fellowship was in cerebrovascular and skull base surgery at Emory University.

**E. Lee Nelson, MD**
Dr. Nelson received his MD from Baylor College of Medicine and Texas Medical Center in Houston. He has extensive training in the treatment of spinal trauma from the Ben Taub General Hospital. Dr. Nelson also underwent training in the renowned M.D. Anderson Cancer Center in surgical and non-surgical management of spinal oncology.

**Sharad Rajpal, MD**
Dr. Rajpal received his MD and neurosurgery training at the University of Wisconsin. He completed a combined orthopedic and neurological surgery spine fellowship at the nationally renowned Cleveland Clinic where he gained experience in the latest techniques in spinal oncology, minimal access surgery and complex spinal deformity.

**David Shafer, MD**
Dr. Shafer received his MD with honors from Drexel University College of Medicine in Philadelphia, PA, where he was the recipient of multiple academic awards. He then proceeded to train in neurosurgery at the University of Colorado in Denver, CO, where he completed his residency, including a year as chief resident. Dr. Shafer’s clinical interests include general neurosurgery as well as deep brain stimulation (DBS) and the surgical treatment of epilepsy.

**Alan Zacharias, MD**
Dr. Zacharias received his MD from the University of Mississippi. His neurology residency was completed at the University of Virginia followed by a neuromuscular and EMG fellowship at Emory University. He has been in private practice since 2000. He practices neurology with special interest in neuromuscular diseases and EMG.
Thank You to Our Supporters

Thank you to the following companies for having provided educational grants in support of this activity:

**GOLD LEVEL:**
- Medtronic
- Stryker

**TITANIUM LEVEL:**
- Nerve Watch
- Orthofix

**SILVER LEVEL:**
- Altitude Physical Therapy & Sports Medicine
- Biomet Spine
- Boulder Spine
- LDR Spine
- Medtronic

**BRONZE LEVEL:**
- Ability Physical Therapy
- Acupuncture Clinic of Boulder
- Alpine Dentistry
- Avista Adventist Hospital
- Boston Scientific
- Coal Creek Physical Therapy
- Codman
- Colorado CyberKnife
- Dfine
- Exactech
- Globus Medical
- Hanger Clinic

**Health Images**
- Marquee Medical
- Mazor Robotics
- Mountain States Surgical
- Mountain West Medical
- Perseverance Medical
- Physical Therapy of Boulder
- Precision Spine
- Southwest Surgical
- The Medicines Company
- Touchstone Medical Imaging
- Twin Peaks Medical Imaging
- X-Spine
- Zimmer Spine

Thank you to the following exhibitors:

Proudly sponsored by BNA
Current Techniques in the Treatment of Cranial and Spinal Disorders

Saturday, October 18, 2014
Omni Interlocken Resort
Broomfield, Colorado