43rd Annual Barrow Neurological Institute Neuroscience Symposium

2017
Wednesday-Friday | May 17-19
Goldman Auditorium
350 West Thomas Road | Phoenix, Arizona
FACULTY
Course Directors | Barrow Neurological Institute
Terry Fife, MD
Director, Barrow Balance Program
Peter Nakaji, MD
Director, Neurosurgery Residency Program
Jeremy Shefner, MD, PhD
Chair, Neurology
Robert F. Spetzler, MD
President & CEO
J.N. Harber Chair of Neurosurgery

Invited Faculty
Sepideh Amin-Hanjani, MD
Residency Program Director
Co-Director of Neurovascular Surgery
UI Health
Daniel L. Barrow, MD
Pamela R. Rollins Professor & Chairman
Director, Emory MBNA Stroke Center
Emory University School of Medicine
Joshua Bederson, MD
Professor & System Chair
Department of Neurosurgery
The Mount Sinai Health System
John B. Bodenstein, MD
Senior Associate Consultant Mayo Clinic
Carlos A. David, MD
Director, Cerebrovascular and Skull Base Surgery
Lahey Hospital & Medical Center
Bradley Gross, MD
Assistant Professor
University of Pittsburgh
Mark N. Hadley, MD
Charles A. and Patsy W. Collat Endowed Professor of Neurosurgery
University of Alabama-Birmingham School of Medicine
Matthew Hebb, MD, PhD
Assistant Professor, Department of Clinical Neurological Disorders
University of Western Ontario
Jeffrey S. Henn, MD
Neurosurgeon
Lee Health
Matthew T. Hoerth, MD
Neurologist
Mayo Clinic
M. Yashar Kalani, MD, PhD
Adjunct Assistant Professor, Radiology
Assistant Professor, Neurosurgery
The University of Utah
Michael T. Lawton, MD
Professor in Research of Neurological Surgery
Tong Po Kan Endowed Chair
University of California San Francisco
Gregory P. Lekovic, MD, PhD
Neurosurgeon
House Clinic
Mark Mahan, MD
Neurosurgeon, Peripheral Nerve & Spinal Disorders
University of Utah Health Care
Prof. Dr. Bernhard Meyer
Klinikum rechts der Isar
Technical University of Munich
Alim Mitha, MD
Assistant Professor of Neurosurgery
University of Calgary
Jacques Morcos, MD
Professor of Clinical Neurosurgery and Otolaryngology
Director, Cerebrovascular Surgery
Director, Skull Base, Pituitary & Endoscopic Tumor Surgery
University of Miami Health System
Min S. Park, MD
Director, Endovascular Neurosurgery Fellowship Program
University of Utah Health Care
Prof. Dr. Andreas Raabe
Chairman and Head
Bern University Hospital
Howard A. Riina, MD
Professor, Department of Neurosurgery
Director, Neurosurgery Residency Program
Medical Director, Patient Care Unit
Vice Chair for Clinical Affairs, Department of Neurosurgery
NYU Langone Medical Center
Jonathan A. Russin, MD
Assistant Professor of Clinical Neurological Surgery
Assistant Surgical Director, Center for Neurorestoration
Keck Medicine of USC
Peter Sunenshine, MD
Neuroradiologist, Banner Health
Prof. Dr. Med. Claudius Thomé
Chairman, Department of Neurosurgery
Medical University of Innsbruck
Maria M. Toledo, MD, ABNS, ACS
Director of Endovascular and Cerebrovascular Program
Director of the Advanced Neurosciences Center
HIMA San Pablo Hospitals
Puerto Rico
Michael Tymianski, MD, PhD
Professor, Department of Surgery
University of Toronto
Peter Vajkoczy, MD
Department of Neurosurgery
Charite Universitatsmedizin Berlin
Dean M. Wingerchuk, MD
Neurologist, Mayo Clinic

Faculty | Barrow Neurological Institute
Mark Agius, MD
Director, Neuroimmunology Division
Felipe Albuquerque, MD
Assistant Director, Endovascular Neurosurgery Program
Aimee Borazanci, MD
Faculty Neurologist
Javier Cardenas, MD
Director, Barrow Concussion and Brain Injury Center
John Karis, MD
Director, MRI & Brain Imaging
Kerry Knievel, DO
Neurologist, Headache & Neuromuscular Disorders
Andrew Little, MD
Co-Director, Barrow Interdisciplinary Skull Base Team & Barrow Pituitary Center
Zaman Mirzadeh, MD
Chief, Neurosurgical Resident
Ana Moran, MD
Infectious Disease Physician
St. Joseph’s Hospital & Medical Center
Elliott Mufson, PhD
Director, Alzheimer’s Disease Research Laboratory
Surasak Phuphanich, MD
Director, Department of Neuro-Oncology
Alan Pitt, MD
Neuroradiologist
Barrow Neurological Institute
Randall Porter, MD
Director, Interdisciplinary Skull Base Program Surgery
Marwan Sabbagh, MD
Director, Alzheimer’s Disease & Memory Disorders Division
Nader Sanai, MD
Director, Division of Neurosurgical Oncology
Director, Brain Tumor Research Center

Mark N. Hadley, MD
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University of Western Ontario
Endowed Professor of Neurosurgery
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Neurologist, Mayo Clinic

Holly Shill, MD
Director, Muhammad Ali Parkinson Center
Kris Smith, MD
Medical Director, Gamma Knife
David M. Treiman, MD
Newsome Chair of Epileptology
Director, Epilepsy Program
Director, Clinical Neurophysiology/Epilepsy Fellowship Program
Jay Turner, MD, PhD
Neurosurgeon
Ryan R. Walsh MD, PhD, FAAN
Movements Disorders Neurologist
John Wanebo, MD
Neurosurgeon
Michael Waters, MD, PhD
Director, Neurovascular Division and Stroke Program

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43rd ANNUAL BARROW NEUROSCIENCE SYMPOSIUM | Wednesday | May 17 | Goldman Auditorium

1:30 PM Registration

2:30 - 3:20 PM
Welcome
Agony & Ecstasy
Trans-Jugular Approaches
Magnets, Lasers, Gamma Rays & Electric Fields: Update on Minimally Invasive Treatments of Brain Tumors and Epilepsy

3:20 PM Refreshment Break

3:50 - 4:50 PM
Biomarker Development for Neurological Diseases
Intraoperative Flow Measurements During Bypass Surgery for Ischemia: What do they Mean?
Peripheral Nerve Surgery; Denervation for Pain
Outcomes in Pituitary Surgery circa 2017

4:50 PM Adjournment

43rd ANNUAL BARROW NEUROSCIENCE SYMPOSIUM | Thursday | May 18 | Goldman Auditorium

7:00 AM Registration and Breakfast

7:55 AM Welcome

8:00 - 10:00 AM
3-D Applications of Flow-Through Flaps for the Treatment of MoyaMoya Disease
Endovascular Neurosurgery at the Barrow: An Enthusiastic Former Fellow’s Perspective
Use of Simulation, Virtual/Augmented Reality and 3-D Printing in Neurosurgical Practice

10:00 AM Refreshment Break

10:30 AM - 12:00 PM
Approach Selection in Lumbar Fusion Surgery
ICD-10 and Vascular Neurosurgery: Words that Matter – Define Neurosurgery
Combined Use of Indocyanine Green and Sodium Fluoresceine for Surgery of Intracranial Aneurysms
The Future of Cerebrovascular Neurosurgery
Combined Management of Dural Arteriovenous Fistulae

12:00 PM Lunch

1:00 - 3:00 PM
Emerging Paradigms for Acute Stroke Management
Endovascular interventions for acute stroke
Features and diagnosis of low pressure headaches and spontaneous CSF leak
Treatment interventions for low CSF pressure and spontaneous CSF leak
Localizing the epileptogenic focus for epilepsy surgery
Refining epilepsy surgery for best outcomes

3:00 PM Refreshment Break

3:30 - 5:05 PM
Neuroimaging of CP angle tumors
Surgical resection of vestibular schwannomas: selection and outcomes
Radiotherapy for vestibular schwannomas: selection and outcomes
Current treatment of gliomas
Emerging approaches in treatment of gliomas

5:05 PM Adjournment

WHO SHOULD ATTEND
Neurosurgeons, neurologists, residents and other healthcare providers with an interest in the application of best practices in the evaluation and appropriate treatment of patients with aneurysms, neurodegenerative diseases, various causes of stroke and utilizing DBS to treat Alzheimer’s disease.

SYMPOSIUM OBJECTIVES
1. Cite the newest research in the treatments of brain tumors and epilepsy
2. Describe the benefits of endovascular interventions for acute stroke
3. List the emerging treatment options for gliomas
4. Discuss the changes in the treatment of pituitary surgery
### Neurosurgery | Goldman Auditorium

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:00 AM</td>
<td>Registration and Breakfast</td>
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<tr>
<td>7:15 - 9:30 AM</td>
<td>Resident Case Presentations</td>
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<td>Agony &amp; Ecstasy</td>
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<td>Cerebrovascular Disease – Why Flow Matters</td>
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<td>EC-IC Bypass: A Plea Before Sounding the Final Death Knell</td>
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<td>9:30 AM</td>
<td>Refreshment Break</td>
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<td>10:00 - 12:00 PM</td>
<td>Nuances of Aneurysm Clipping</td>
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<td>Reconstructive &amp; Regenerative Approaches to the Lumbar Disc</td>
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<td>Emerging Technologies for Intraoperative Tumor Diagnosis</td>
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<td>The Use of Anticoagulants in Posterior Fossa Surgery</td>
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<td>Combined Endovascular and Surgical Approaches to</td>
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<td>Otherwise Difficult Cases</td>
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<td>Treatment of Chronic Low Back Pain via Ablation of the Basivertebral</td>
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<td>Nerve: Results of a Multi-Center, Randomized, Double Blinded, Sham</td>
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<td>Controlled Trial (SMART’Trial)</td>
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<td>12:00 PM</td>
<td>Lunch</td>
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<td>1:00 - 2:00 PM</td>
<td>Vitamin D in the Neurocritical Care Unit: A Randomized, Double,</td>
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<td>Blinded, Placebo Controlled Unity</td>
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<td>Results from the Giant Aneurysm Registry</td>
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<td>Critical Molecular Pathways in MoyaMoya Angiopathy</td>
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<td>AVM Surgery in the ARUBA Era – Where Do We Go from Here?</td>
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<td>2:00 PM</td>
<td>Adjournment</td>
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### Neurology | Muhammad Ali Parkinson Center Conference Room

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<tbody>
<tr>
<td>7:00 AM</td>
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<tr>
<td>7:55 AM</td>
<td>Introduction</td>
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<tr>
<td>8:00 - 10:00 AM</td>
<td>Genomics, biomarkers and potential early or preclinical treatment of</td>
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<td>Alzheimer’s disease</td>
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<td>Progress in treatment of Alzheimer’s disease</td>
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<td>MR imaging of the brain and cerebrovasculature</td>
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<td>Concussions: Mechanisms of injury. What happens to the brain and</td>
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<td>10:00 AM</td>
<td>Refreshment Break</td>
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<tr>
<td>10:15 - 12:15 PM</td>
<td>Choosing among Disease Modifying Therapies in MS</td>
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<td>Neuromyelitis Optica</td>
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<td>Autoimmune Encephalitis</td>
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<td>Infectious Encephalitis</td>
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<td>12:15 PM</td>
<td>Lunch</td>
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<td>1:00 - 4:00 PM</td>
<td>Arizona Neurological Society Forum for Discussion</td>
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<td>Maintenance of Certification (MOC): What to know</td>
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<td>Current and Emerging Neuroimaging in Parkinson’s Disease</td>
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<td>Mechanisms and management options for tremor</td>
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<td>Antisense oligonucleotides: a promising new therapy</td>
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<td>4:00 PM</td>
<td>Adjournment</td>
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Registration Form

43rd Annual Barrow Neuroscience Symposium | May 17-19, 2017
Register Early! Take advantage of discounted registration fees.

<table>
<thead>
<tr>
<th>Early Bird Registration</th>
<th>Pre and Onsite Registration</th>
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<tr>
<td>Deadline 4/19/17</td>
<td>After 4/19/17</td>
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Barrow Neuroscience Symposium
Wednesday - Friday | May 17-19, 2017

- **Physician** $350 $425
- **Resident/Fellow** $125 $200
- **NP / PA / CNRN** $250 $325
- **Alumni** $275 $325

**Friday | May 19 ONLY**

- **Physician** $150 $200

**BNI Attendee Dinner (Camelback Inn)**
Thursday | May 18, 2017

- $50 $50

I will attend the BNI Attendee Dinner: YES NO

Bringing guest: YES NO

I am interested in participating in the Golf Tournament on May 20, 2017: YES NO

Register online: www.barrowneuro.org/43rd-annual-barrow-neuroscience-symposium-registration/

Mail or Fax your registration form and payment to:
Lindsey Possehl | Conference Planning Office
Barrow Neurological Institute | 350 West Thomas Road | Phoenix, Arizona 85013 USA | Fax: 602.294.5028

Prefix (Dr., Mr., Ms.) Name_____________________________________________________________ Degree____________

Professional Title (Director, Neurosurgeon, etc.)_________________________________________________________________

Company / Institution_____________________________________________________________________________________________

Address____________________________________________________   City___________________  State______   Zip_____________

Telephone_________________________________________________   Fax__________________________________________________

Email Address____________________________________________________________________________________________________

- Check or money order payable to: St. Joseph’s Hospital and Medical Center (in US funds drawn on a US bank ONLY) A $20 charge applies to checks returned for insufficient funds.
- Visa  MasterCard  American Express  Discover

Card Number_______________________________________________________  Expiration Date_______________________

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Cardholder’s Name (if corporate card, give company name)         Cardholder’s Signature and Billing Zip Code

For more information contact Lindsey Possehl | Email: Lindsey.Possehl@DignityHealth.org  |  602.406.3067

Refund Policy: A refund, less $75.00 processing fee, will be made for cancellations submitted in writing prior to April 19, 2017. No refunds will be made thereafter. Barrow reserves the right to cancel or change any program for due causes. Cancellation of a program by Barrow will result in a full refund of tuition. Barrow and SJHMC are not responsible for the refund of travel or hotel expenses under any circumstance.

Hotel Info

A primary block of guest rooms has been reserved at the Camelback Inn for the Symposium, with a smaller block of rooms at the Omni Montelucia for those preferring to stay there. We suggest you book your rooms as soon as you are able to confirm your respective travel plans. A shuttle will be available from the hotels to the hospital during the Symposium times.

**Spetzler Retirement Gala and Attendee Dinner Location:**

JW Marriott Camelback Inn Resort & Spa
5402 East Lincoln Drive
Scottsdale, AZ 85253

https://aws.passkey.com/event/15450609/owner/10769/home

Optional Resort Location:

Omni Scottsdale Resort & Spa at Montelucia
4949 East Lincoln Drive
Scottsdale, Arizona, 85253


A shuttle will be available for those staying at the Omni.