**Mentoring in Neurosurgery**

Upon completion of this program, participants should be able to:

- Express familiarity with the resident match process and tools for resident selection and retention
- Describe approaches to developing leadership within departments and health care systems
- Describe mentorship approaches for fostering neurosurgical education and leadership
- Discuss pathways of career development and participation in clinical, basic and translational research, academic, and administrative roles
- Identify routes for neurosurgical research training across the spectrum from medical student to faculty
- Define the role of neurotrauma, pediatric neurosurgery, and critical care in neurosurgical education and contemporary clinical practice
- Discuss and debate the big data initiatives in training, research, and education

**FRIDAY, May 18, 2018**

4:00-6:00 pm  Registration  
Hotel Hershey, Ballroom Foyer

**SATURDAY, May 19 – Executive Council Members Only**

7:00-8:00 am  Members & PD Breakfast  
Hotel Hershey, Ballroom

11:30 am-4:00 pm  Executive Council Meeting  
Hotel Hershey, Starlight West
SATURDAY, May 19 – All
8:00 am-5:00 pm  Registration:  

**RESIDENCY: PROGRAM DIRECTOR SESSION**  
Moderator: Gregory J. Zipfel, MD

8:00-9:30 am  *Mock Residency Review Committee (RRC)*  
– Pamela L. Derstine, PhD, MHPE; Nicholas M. Barbaro, MD

8:00-8:15  
– RRC Update – Pamela L. Derstine, PhD, MHPE

8:15-8:30  
– RRC Process Introduction – Nicholas M. Barbaro, MD

8:30-9:15  
Mock RRC Panel  
– Griffith R. Harsh IV, MD  
– Pamela L. Derstine, PhD, MHPE  
– Nicholas M. Barbaro, MD  
– Harry Rosenbluth, MBA  
– Karin M. Muraszko, MD  
– Nickalus R Khan, MD

9:15-9:30  
Questions and Discussion

9:30-9:45 am  *Break*

9:45-11:00 am  *Milestones 2.0 Update*  
– Nathan R. Selden, MD, PhD  
– Stanley J. Hamstra, PhD  
– Oren Sagher, MD  
– Griffith R. Harsh IV, MD

9:45-10:00am  
What we learned from Milestones 1.0 – Hamstra

10:00-10:15  
Goals, Process and Milestones 2.0 Structure – Selden

10:15-10:30  
Focused MK and PC Milestones for  
Residency and Fellowship – Sagher

10:30-10:45  
General Milestones for the Neurosurgeon – Harsh

10:45-11:00  
Questions and Discussion

11:00am-Noon  
*Evolutions in Medical Student Education*  
Moderator: E. Sander Connolly Jr., MD
**SCIENTIFIC AND SOCIAL PROGRAM**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker/Details</th>
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</thead>
<tbody>
<tr>
<td>11:00-11:15 am</td>
<td><em>Accelerated Programs in Medical Education</em></td>
<td>Therese M. Wolpaw, MD, Vice Dean for Educational Affairs, Penn State College of Medicine</td>
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<tr>
<td>11:15-11:30 am</td>
<td><em>Medical Student Mentorship for the Neurosciences through Focused Interest Groups</em></td>
<td>Jeffrey N. Bruce, MD</td>
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<tr>
<td>11:30-11:45 am</td>
<td><em>Integration of Neuroscience Laboratory Research Into Medical Education</em></td>
<td>James Connor, PhD, vice Chair for Research, Penn State Department of Neurosurgery</td>
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<tr>
<td>11:45-Noon</td>
<td><em>Panel Questions and Answers</em></td>
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<td>Noon-1:00 pm</td>
<td><em>Lunch Seminar</em></td>
<td>Hotel Hershey, Ballroom</td>
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<td></td>
<td><em>Resident Scholarship and Publications</em></td>
<td>James T. Rutka, MD, PhD, Nelson M. Oyesiku, MD, PhD, William T. Couldwell, MD, PhD</td>
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<td></td>
<td><em>Moderator: Linda M. Liau, MD, PhD</em></td>
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<tr>
<td>1:00-1:15pm</td>
<td><em>Neurosurgical Portal: Update</em></td>
<td>Warren R. Selman; MD, Nicholas C. Bambakidis, MD</td>
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<tr>
<td>1:15-1:30 pm</td>
<td><em>Research Committee Update</em></td>
<td>Robert M. Friedlander, MD</td>
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<td>1:30-1:45 pm</td>
<td><em>CoRE Update</em></td>
<td>Richard W. Byrne, MD</td>
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<td>1:45-2:00 pm</td>
<td><em>Medical Student Committee Update</em></td>
<td>Mark S. Dias, MD</td>
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<td>2:00-2:10 pm</td>
<td><em>Questions and Answers</em></td>
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<td>2:10-2:30 pm</td>
<td><em>Break</em></td>
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<tr>
<td>2:30-4:00 pm</td>
<td><em>Diversity in Medical Education and Neurosurgery Seminar</em></td>
<td>Shelly D. Timmons, MD, PhD</td>
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<tr>
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<td><strong>A. Lynette Chappell-Williams, JD — The Rooney Rule and Academic Medicine Diversity</strong></td>
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<td></td>
<td><strong>B. Stacey C. Wolfe, MD — Women in Neurosurgery</strong></td>
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<td></td>
<td><strong>C. John 'Jay' Wellons, III, MD, MSPH — Global diversity in neurosurgery</strong></td>
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Learning Objectives:
At the end of this session, participants will be able to:
• Describe the merits that diversity yields to neurosurgical training programs
• Learn about options for achieving and improving the diversity of your residency program
• Describe the merits of diversity in medical school education and in neurosurgical faculty

4:00-6:00 pm   SNS Committee Meetings

4:00-6:00 pm   CAST Meeting  Rose Garden
4:30-5:30 pm   Research Meeting  Tea House
4:30-5:30 pm   CORE & Resident Courses Committees  Blue Mnt I
4:30-5:30 pm   Portal Executive Committee  Blue Mnt II
4:30-5:30 pm   Medical Student Committee  Blue Mnt III

6:30-8:30 pm   Opening Reception: The Hershey Story Museum
Light hors d’oeuvres served. Attire: Business (Transportation from the Hotel Hershey will be provided)
**SCIENTIFIC AND SOCIAL PROGRAM**

**SUNDAY, May 20**

7:00 am-5:00 pm  Registration  
**Hotel Hershey**

**Entire day’s events, excluding breakfast, will be held offsite at Penn State Milton S. Hershey Medical Center (PSHMC). Transportation will be available from the hotel to the medical center. Travel time from the hotel to the medical center is approximately 15 minutes.**

6:30-7:15 am  Breakfast  
**Hotel Hershey**

7:15 am  Bus transportation from Hotel Hershey

**SESSION 1: SUNDAY MORNING**

The Penn State Department of Neurosurgery Host Program

*Penn State Milton S. Hershey Medical Center, Junker Auditorium*

8:00-8:05 am  Welcome from Local Host and Program Chair

Robert E. Harbaugh, MD, and Jason P. Sheehan, MD, PhD

8:05-8:15 am  Welcome from the Dean, Penn State College of Medicine, CEO, PSHMC and Vice President for Health Affairs, Penn State University

A. Craig Hillemeier, MD, Dean

8:15-8:45 am  History and Overview of the Penn State Department of Neurosurgery

Robert E. Harbaugh, MD

8:45-9:00 am  Pediatric Neurosurgery Program

Mark S. Dias, MD

9:00-9:15 am  Cerebrovascular & Endovascular Neurosurgery Program

Kevin M. Cockroft, MD

9:15-9:30 am  Spine Surgery Program

G. Timothy Reiter, MD

9:30-9:45 am  Neuro-Oncology & Skull Base Surgery Program

Brad E. Zacharia, MD

9:45-10:00 am  Peripheral Nerve Surgery Program

Kimberly S. Harbaugh, MD

10:00-10:15 am  Break

10:15-10:30 am  Stereotactic and Functional Neurosurgery Program

James McInerney, MD

10:30-10:45 am  Epilepsy and Pain Management Surgery Program

Michael D. Sather, MD
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>10:45-11:00 am</td>
<td>Neurocritical Care Program</td>
<td>Haejoe Park, MD</td>
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<tr>
<td>11:00-11:15 am</td>
<td>Neurotrauma Program</td>
<td>Shelly D. Timmons, MD, PhD</td>
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<tr>
<td>11:15-11:30 am</td>
<td>Basic, Translational and Clinical Research</td>
<td>Elias B. Rizk, MD</td>
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<tr>
<td>11:30-11:45 am</td>
<td>Center for Neural Engineering</td>
<td>Steven J. Schiff, MD, PhD</td>
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<tr>
<td>11:45-12:00 Noon</td>
<td>Neurosurgery Residency Program and CAST Fellowships</td>
<td>James McInerney, MD</td>
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<tr>
<td>Noon-1:00 pm</td>
<td>Lunch</td>
<td>PSHMC Front Lawn</td>
</tr>
</tbody>
</table>
SESSION 2: SUNDAY AFTERNOON

Mentoring for leadership

Penn State Medical Center Junker Auditorium

Moderator: Daniel L. Barrow, MD

1:00-1:05 pm  
Introduction of Keynote Speaker
– Robert E. Harbaugh, MD

1:05-1:40 pm  
**Keynote Address:** The role of the academic medical center in a health system
– Eric J. Strucko, Associate Vice President for Finance and Business and controller for Penn State College of Medicine

1:40-1:45 pm  
Q&A

1:45-2:40 pm  
Leadership development
Moderator: Alan R. Cohen, MD

1:45-2:00 pm  
Leadership development in Neurosurgery
– Shelly D. Timmons, MD, PhD

2:00-2:15 pm  
Leadership development in the U.S. Army
– Richard A. Lacquement Jr., PhD, Dean of the US Army War College

2:15-2:30 pm  
Teaching Leadership for college students
– Melissa Doberstein (Director of Penn State Leadership Academy)

2:30-2:40 pm  
Q&A

2:40-2:45 pm  
**Neurosurgery Medical Student Teaching Award**
– Presented by Daniel L. Barrow, MD

2:45-2:50 pm  
**Distinguished Service Award to Kim J. Burchiel, MD**
– Presented by Nicholas M. Barbaro, MD

2:50-3:10 pm  
Break

3:10-4:10 pm  
Service Line versus Departmental based Health Care Delivery and Implications for Neurosurgical Education
– Moderator: William T. Couldwell, MD, PhD

3:10-3:25 pm  
Neurosciences Service Line Model
– Nicholas C. Bambakidis, MD

3:25-3:35 pm  
Departmental Based Model
– Aaron S. Dumont, MD

3:35-3:45 pm  
Philanthropy and the Mission of Graduate Medical Education
– M. Sean Grady, MD

3:45-4:10 pm  
Panel
### SCIENTIFIC AND SOCIAL PROGRAM

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<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>4:10-4:15 pm</td>
<td>Introduction of Winn Award Lecturer</td>
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<td>– E. Antonio Chiocca, MD, PhD</td>
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<td>4:15-5:00 pm</td>
<td>Winn Award Lecture: **</td>
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<tr>
<td>7:00-10:00 pm</td>
<td>Reception: Hershey Gardens and Butterfly Pavilion</td>
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<td>Heavy hors d’oeuvres served. Attire: Business</td>
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**MONDAY, May 21**

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>7:00 am-5:00 pm</td>
<td>Registration</td>
<td>Hotel Hershey, Ballroom Foyer</td>
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<tr>
<td>6:30-7:30 am</td>
<td>Members Only Breakfast &amp; Business Meeting</td>
<td>Hotel Hershey, Ballroom</td>
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<tr>
<td>6:30-7:30 am</td>
<td>Non-Member Breakfast</td>
<td>Hotel Hershey, Castilian Room</td>
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</table>
**SESSION 3: MONDAY MORNING**

Continuum of Training  
*Hotel Hershey, Ballroom*

**Moderator:** Sepideh Amin-Hanjani, MD

**8:00-8:15 am** Neurosurgical Training and Evidence Based Medicine  
– Brad E. Zacharia, MD, and Michael J. Glantz, MD

**8:15-8:25 am** Neurotrauma Training in Residency and Fellowship  
– Geoff Manley, MD

**8:25-8:35 am** Neurocritical Care Training in Residency and Fellowship  
– Robert E. Harbaugh, MD

**8:35-8:45 am** Pediatric Neurosurgery Training in Residency and Fellowship  
– Frederick A. Boop, MD

**8:45-8:55 am** Endovascular and Cerebrovascular Training in Residency and Fellowship  
– Robert H. Rossenwasser, MD, MBA

**8:55-9:00 am** Socioeconomic training for Residents  
– John K. Ratliff, MD

**9:00-9:10 am** Panel Question and Answer

**9:10-9:15 am** Introduction of Keynote Speaker  
– H. Hunt Batjer, MD

**Keynote Address: Role of Fellowship Training in Medical Education**  
– Thomas J. Nasca, MD

**9:45-10:00 am** Break

**10:00-10:15 am** Update from NIH/NINDS  
– Walter J. Koroshetz, MD

**10:15-11:00 am** Research Training Across the Spectrum: Panel Discussion  
Moderator: Russell R. Lonser, MD

**10:15-10:25 am** Overview—NIH Perspective  
– John D. Heiss, MD

**10:25-10:35 am** R25 Program Update  
– Daniel Yoshor, MD

**10:35-10:45 am** K12 Program Update  
– Emad N. Eskandar, MD

**10:45am-11:00am** Panel Question and Answer

**11:00-11:10 am** Introduction of Nicholas Barbaro, MD, SNS President  
– Kim J. Burchiel, MD
11:10-11:55 am  Presidential Address: Lifelong Mentoring in Neurosurgery
   – Nicholas M. Barbaro, MD

11:55-Noon  Presentation of the Presidential Gavel
   – Nicholas M. Barbaro, MD, to Daniel Barrow, MD

Noon-1:00 pm  Lunch  Hotel Hershey, Ballroom
SCIENTIFIC AND SOCIAL PROGRAM

SESSION 4: MONDAY AFTERNOON

Neurosurgical Training Beyond the Operating Room and Basic Science Laboratory

Hotel Hershey, Ballroom

Moderator: Judy Huang, MD

1:00-1:15 pm  
*Historical Vignette*  
– Donald O. Quest, MD

1:20-1:25 pm  
*Introduction of Keynote Speaker*  
– Robert E. Harbaugh, MD

1:25-2:00 pm  
**Keynote Address:** Assessing Burnout and Fostering Resilience  
– Daniel Shapiro, PhD, Vice Dean for Faculty and Administrative Affairs, Penn State College of Medicine.

2:00-2:10 pm  
Q&A

2:10-2:25 pm  
Break

Moderator: Matthew A. Howard, III, MD

2:25-2:45 pm  
*Virtual reality and Neurosurgical Training*  
– Fady T. Charbel, MD

2:45-3:05 pm  
*Development of an “Expert” Virtual Reality Performance Model for Neurosurgical Training*  
– Roland F. Del Maestro, MD

3:05-3:25 pm  
*Microsurgical and Anatomy Laboratory*  
– Harry R. van Loveren, MD

3:25-3:45 pm  
*Business School*  
– Gene H. Barnett, MD, MBA

3:45-4:05 pm  
*Public Health School*  
– Anil Nanda, MD

4:05-4:15 pm  
Panel Discussion

4:10-4:15 pm  
Introduction of Grossman Award Lecture  
– Nicholas M. Barbaro, MD

4:15-4:50 pm  
**Grossman Award Lecture:** Brain Circuits for Opioid Analgesia and Reward  
– Howard Fields, MD, PhD

4:50-5:00 pm  
Q&A

6:30-10:00 pm  
*Dinner/Dance:* Hotel Hershey (Attire: Black Tie Optional)
TUESDAY, May 22

6:30-7:30 am  Breakfast  Hotel Hershey, Ballroom

SESSION 5: TUESDAY MORNING  Hotel Hershey, Ballroom

Committee Updates

Moderator:  Sunil J. Patel, MD

7:30-7:45 am  CAST Update  – Arthur L. Day, MD
7:45-8:00 am  Resident Course Update  – Gregory J. Zipfel, MD
8:00-8:15 am  RUNN Course Update  – Allan H. Friedman, MD
8:15-8:30 am  ABNS Update  – B. Gregory Thompson, MD
8:30-8:45 am  Washington Committee Update  – Ann R. Stroink, MD
8:45-9:00am  Panel of speakers for Patient Safety and Answers

Patient Safety and Risk Management in Neurosurgical Care and Training

Moderator:  Richard W. Byrne, MD

9:00-9:15am  Training Medical Residents on Legal Issues Impacting Their Patients  – Medha D. Makhlouf, JD, Director Medical-Legal Partnership Clinic and Assistant Professor of Law, Dickinson School of Law
9:15-9:30am  Patient Safety and Quality Improvement within Neurosurgery  – J. Christopher Zacko, MD
9:30-9:35 am  Introduction of Keynote Speaker  – Anil Nanda, MD
9:35-10:00 am  Keynote Address: “Will academic medicine falter or lead?”  – Darrell G. Kirch, MD, President and CEO of the AAMC
10:00 am  Adjourn
10:00-noon  Executive Council Meeting Hotel Hershey, Overlook Room