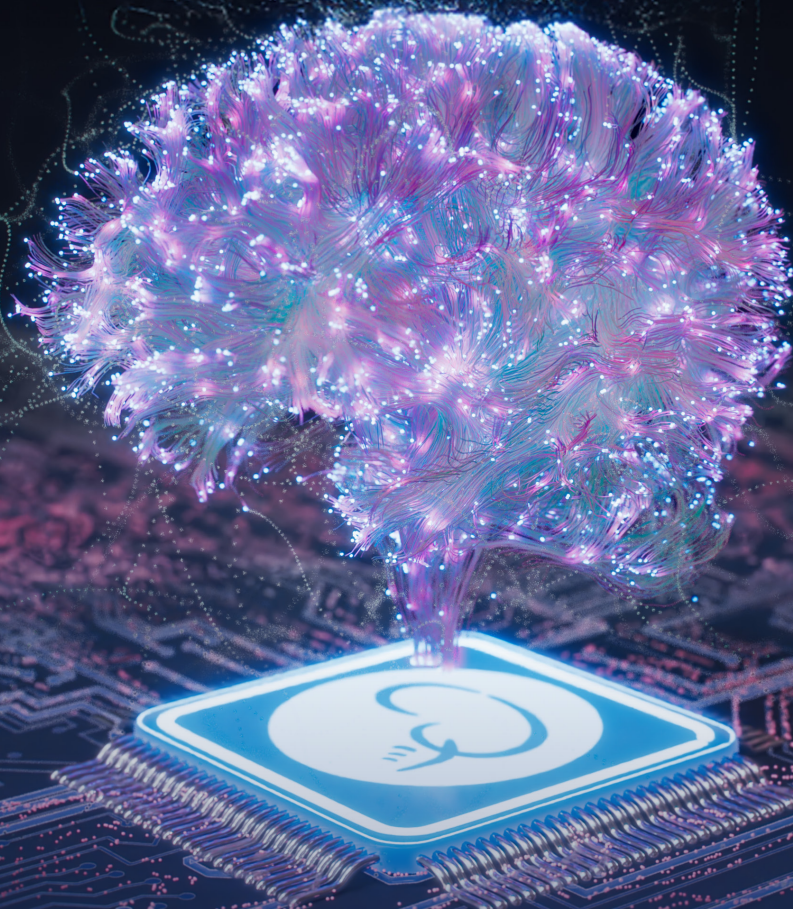


2026

Barrow Neurological Institute
Neuroscience Symposium

New Frontiers in Neuroscience



May 13-15, 2026

Goldman Auditorium and Sonntag Pavilion
Barrow Neurological Institute
350 West Thomas Road, Phoenix, AZ



Barrow
Neurological Institute

Minding What Matters Most®

AGENDA | May 13, 2026 | Day One

Day 1 | Goldman Auditorium

11 a.m. WELCOME LUNCH - Sonntag

TRANSLATIONAL NEUROSCIENCE

- Noon Lost Connections – Modeling Synaptic Failure in Dementias
Rita Sattler, PhD, MSc
- 12:15 p.m. Lost Connections - Mapping MRI Biomarkers of Network Disruption in Dementias
Ashley Stokes, PhD
- 12:30 p.m. Found Connections – Biorepository efforts to drive translational research
Robert Bowser, PhD

NEURO-ONCOLOGY

- 12:40 p.m. The Pursuit of a Cure: Early-Phase Innovation to Phase 3 Impact in Neuro-Oncology
Yoshie Umemura, MD
- 1 p.m. Accelerating CNS Drug Development Through Tissue-Based Trials
Shwetal Mehta, PhD

NEUROCRITICAL

- 1:20 p.m. Spreading Depolarizations as a Therapeutic Target in Acute Brain Injury
Rachel Thomas, MD, PhD
- 1:40 p.m. Neuroprognostication After Cardiac Arrest
Daniella Sisniega, MD

STROKE

- 2 p.m. IV Thrombolysis in the Extended Time Window
Paige Banyas, DO
- 2:20 p.m. Expanding Access to Acute Stroke Care: The Impact of Telestroke in Arizona
Judea Wiggins, MD

2:40 p.m. Q & A

2:50 p.m. BREAK - Marley Lobby

GLOBAL NEUROSCIENCES

- 3:10 p.m. Introduction: It Takes a Village
Dilan Ellegala, MD
- Global Neurology**
- 3:15 p.m. Working Locally, Thinking Globally: Addressing the Epilepsy Treatment Gap
Ryan Wagner, MD, PhD
- 3:30 p.m. South Africa and the Forefront of Global Neuroscience: Expanding Horizons and Building Lasting Foundations
Irtiza Ahmad Chaudhry, MBBCh, BSc
- 3:40 p.m. Shaping My Path While Building Procedural Skills Through Global Training
Sandane Chauke-Korae, MBBCh
- 3:50 p.m. Epilepsy Care in South Africa: Barrow Experience
Vladimir Shvarts, MD, FACNS
- Global Neurosurgery**
- 4 p.m. Sustaining Progress in Tanzania and Emerging Partnerships in Latin America
Anthony Gross
- 4:10 p.m. The Barrow Neuroradiology Global Experience: Highlights and Insights
Jeremy Hughes, MD
- 4:20 p.m. Clinical Practice Within Constraints: A Collaborative Model of Neuroscience Nursing at KCMC
Mackenzie Granitz, BSN, RN, CNRN, SCRN
- 4:30 p.m. Concluding Remarks & Q&A session
F. David Barranco, MD

4:45 p.m. Adjourn

6 p.m. Reception at Phoenix Art Museum

AGENDA | May 14, 2026 | Day Two

Day 2 | Goldman Auditorium

7:10 a.m. BREAKFAST - Marley Lobby/Sonntag

NEUROLOGY KEYNOTE

- 8 a.m. Mapping and Modulating Human Brain Circuits
Michael D. Fox, MD, PhD

9 a.m. Q & A / BREAK

NEUROTECHNOLOGY

- 9:10 a.m. How to Build a Successful Robotics Program
Christina Kwasnica, MD
- 10 a.m. Clinical Applications of BCI in Neurologic Disease
Shafeeq S. Ladha, MD
- 10:25 a.m. Decoding Neural Activity with the N1 Neuralink Implant
Sehej Bindra

10:50 a.m. Q & A

PRECISION EPILEPSY SURGERY

- 11 a.m. Physiology-Guided Surgical Targeting for Neuromodulation
Andrew Yang, MD, MS
- 11:15 a.m. Individualized Stimulation Paradigms in Epilepsy Neuromodulation
David Harris, MD
- 11:30 a.m. Role of Genetic Testing in Surgical Management of Refractory Epilepsy
Yajing Y. Xiong, MD

11:50 a.m. Q & A

Noon LUNCH - Sonntag

AGENDA | May 14, 2026 | Day Two

Day 2 | Goldman Auditorium (continued)

VASCULAR NEUROSURGERY

- 1 p.m. Surgery for Spinal Cord Arteriovenous Malformations
Michael T. Lawton, MD
- 1:15 p.m. Microplastics and Cerebrovascular Diseases
Tomoki Hashimoto, MD
- 1:30 p.m. Outcomes of Resection of Brainstem Cavernoma with one vs. two hemorrhages
Davis Taylor, MD

11:45 p.m. Q & A

NEUROENDOVASCULAR INTERVENTION

- 1:50 p.m. E Shunt System for Treatment of Hydrocephalus
Neil Majmundar, MD
- 2 p.m. Asymptomatic Carotid Artery Stenosis: Insights from CREST2
Ashutosh Jadhav, MD, PhD
- 2:10 p.m. Advances in Treatment of Wide-Neck Aneurysms
Richard Williamson, MD
- 2:20 p.m. Middle Meningeal Artery Embolization for the Treatment of Migraine Headache
Andrew Ducruet, MD

2:30 p.m. Q & A

2:40 p.m. BREAK

SPINE

- 3 p.m. Mixed Reality and the Impact on Surgeon Training, Education, and Protection of Surgical Outcomes
Chinami Michaels, MS
- 3:20 p.m. Adult Spinal Deformity: Current Management Trends
Jay Turner, MD, PhD
- 3:40 p.m. Applications of Minimally Invasive Spine Surgery
Laura A. Snyder, MD, FAANS
- 4 p.m. Spinal Cord Injury: New Frontiers in Surgical Treatment
Rory Murphy, MD
- 4:15 p.m. Outpatient Spinal Surgery: Indications and Implications on Health Care Expenditure
Mark Oppenlander, MD, FAANS

4:30 p.m. Adjourn

5:30 p.m. Reception - Phoenix Heard Museum

AGENDA | May 15, 2026 | Day Three

Day 3 | Goldman Auditorium

7:30 a.m. BREAKFAST - Marley Lobby/Sonntag

NEUROSURGERY KEYNOTE

- 8:30 a.m. A New Era of Experiential Medicine: Cognitive Enhancement Technologies
Adam Gazzaley, MD, PhD

- 9:30 a.m. **FIRESIDE CHAT** | Neuralink patient "Real World Scenarios - N1 Implant"
Michael T. Lawton, MD, & Alex Conley

10:30 a.m. Adjourn



Barrow Neurological Institute Faculty

Paige Banyas, DO

Neurologist, Stroke

F. David Barranco, MD

Chief Medical Officer
Neurosurgeon, Brain and
Spine Surgery

Robert Bowser, PhD

Chief Scientific Officer
Professor, ALS, Proteomics,
Biomarkers

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Assistant Director
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Neuroscience Nurse Educator

Anthony Gross

Program Manager
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Research Center
Professor, Neuroanesthesiology
and Neurobiology

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Ashutosh Jadhav, MD, PhD

Interventional Neurologist

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Brain Injury Specialist
Chair, Physical Medicine &
Neuro-Rehabilitation

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Biomarkers

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Fellow, Cerebrovascular &
Skull Base Surgery

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Neurologist
Neurocritical Care

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Director, Barrow Clinical
Outcomes Center
Associate Professor,
Neurosurgery

Yoshie Umemura, MD

Chief, Neuro-Oncology

Ryan Wagner, MD, PhD

Adult Neurology Resident

Judea Wiggins, MD

Neurologist, Stroke

Richard W. Williamson, MD

Endovascular Neurosurgeon

Yajing Y. Xiong, MD

Neurologist, Epilepsy

Andrew Yang, MD, MS

Neurosurgeon, Cranial
Neurosurgery

Visiting Faculty

Sehej Bindra

Neuralink

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University of the
Witwatersrand
Resident Neurosurgeon

Sandane Chauke-Korae, MBBCh

University of the
Witwatersrand
Resident Neurologist

Michael D. Fox, MD, PhD

Director, Center for Brain
Circuit Therapeutics,
Raymond D. Adams Endowed
Chair in Neurology

Kaye Family Director,
Psychiatric Brain Stimulation
Program, Professor, Harvard
Medical School

Adam Gazzaley, MD, PhD

David Dolby Distinguished
Professor, Neurology,
Physiology and Psychiatry -
UCSF, Founder & Executive
Director, Neuroscape

Weill Institute for
Neurosciences, Co-Founder
& Chief Science Advisor,
Akili Interactive, Nature
Photography, Wanderings
University of California,
San Francisco, Sandler
Neurosciences Center

Alex Conley

Patient



Target Audience

This activity is intended for neurosurgeons, neurologists, residents, fellows, and medical students involved in the care of patients with neurological diseases.

Objectives

- Recognize neurological disorders and become familiar with appropriate data-driven treatments
- Learn the diagnostic evaluation and decision-making process for medical and neurosurgical interventions
- Increase the understanding and clinical competence to improve clinical practice and outcomes in neurological and neurosurgical conditions
- Understand the evaluation algorithms and evidence-based treatment options for vascular, neurodegenerative, and neoplastic disorders

CONTINUING MEDICAL EDUCATION CREDIT INFORMATION

Accreditation

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of American College of Surgeons and Barrow Neurological Institute. The American College of Surgeons is accredited by the ACCME to provide continuing medical education for physicians.

AMA PRA Category 1 Credits™

The American College of Surgeons designates this live activity for a maximum of 13.00 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.



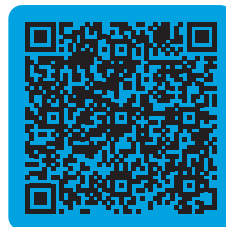
Award of CME credits by ACS is based on compliance of the program with the ACCME accreditation requirements and does not imply endorsement by ACS of the content, the faculty, or the sponsor of the program.

AND

Successful completion of this CME activity, which includes participation in the evaluation component, enables the learner to earn credit toward the CME of the American Board of Surgery's Continuous Certification program.

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