

9TH ANNUAL

# Bridging Breakthroughs in Neuroscience from Bench to Bedside

October 12 – 13, 2018



Li Ka Shing Center for  
Learning and Knowledge  
Stanford University  
Stanford, CA

A Continuing Medical Education Conference  
presented by the Department of Neurology  
and Neurosurgery at the Stanford University  
School of Medicine.

Sponsored by the Stanford University School of Medicine



**Stanford** | MEDICINE

## COURSE OVERVIEW

### STATEMENT OF NEED

This CME activity seeks to fulfill the educational needs of healthcare professionals who manage patients with neurologic diseases and disorders. This symposium will review the latest advances and best practices in the rapidly-evolving field of neuroscience by addressing clinical challenges in a variety of areas, including dementia, degenerative brain diseases, movement disorders, neuromuscular disorders, headache and pain, stroke, and neuro-oncology. Emphasis will be placed on information required to evaluate novel screening, develop diagnostic strategies, and identify the most effective therapeutic options for optimal treatment and/or referral of patients. Lectures with question-and-answer sessions or panel discussions will afford learners the opportunity to examine practice dilemmas, discuss available evidence, and apply effective case management.

### TARGET AUDIENCE

This is a national program designed for physicians, nurses and allied health professionals specializing in Emergency Medicine, Family Practice, Internal Medicine, Primary Care, Neurology, Interventional Radiology, Neurosurgery, Physical Medicine and Rehabilitation, and Neuro-Oncology.

### LEARNING OBJECTIVES

At the conclusion of this activity, participants should be able to:

- Review key factors important in the development and diagnosis of degenerative brain disease
- Outline current diagnostic and treatment options available for the management of appropriate patients with neuromuscular disorders
- Integrate new approaches to the prevention, diagnosis, and management of stroke into clinical decision making with patients who are at risk or have experienced stroke
- Incorporate advances in medical, radiological, and/or surgical therapy into treatment strategies for appropriate patients with brain tumors
- Summarize patient- and disease-related factors critical to the differential diagnosis of tremor

- Outline critical patient-related factors for the selection of appropriate candidates for device-assisted treatment of movement disorders
- Apply current clinical evidence when planning treatment strategies for patients with headache, back, or other types of chronic pain
- Incorporate advanced techniques into the neurological exam of appropriate patients under evaluation for neurological disorders
- Describe current clinical evidence regarding the use of neuro-stimulation in patients with refractory epilepsy

### ACCREDITATION

The Stanford University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

### CREDIT DESIGNATION

The Stanford University School of Medicine designates this live activity for a maximum of 12 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The California Board of Registered Nursing recognizes that Continuing Medical Education (CME) is acceptable for meeting RN continuing education requirements as long as the course is certified for *AMA PRA Category 1 Credit™ (rn.ca.gov)*. Nurses will receive a Certificate of Participation following this activity that may be used for license renewal.

### FACULTY DISCLOSURE

The Stanford University School of Medicine adheres to ACCME Criteria, Standards and Policies regarding industry support of continuing medical education. Disclosure of faculty and their commercial relationships will be made prior to the activity.

### COMMERCIAL SUPPORT ACKNOWLEDGEMENT

This CME activity is supported in part by educational grants. A complete list of commercial supporters will be published in the course syllabus.

## FACULTY *All faculty members and conference planners are from Stanford University School of Medicine unless otherwise noted.*

### COURSE DIRECTORS

**Jeffrey Dunn, MD, FAAN**  
Clinical Professor of Neurology and Neurological Sciences  
Division Chief, Clinical Neuroimmunology  
Director, Neurology Clerkship

**Casey Halpern, MD**  
Assistant Professor of Neurosurgery and, by courtesy, of Neurology and Neurological Sciences and Psychiatry and Behavioral Sciences

### STANFORD FACULTY

**Gregory Albers, MD**  
The Coyote Foundation Professor and Professor, by courtesy, of Neurosurgery  
Director, Stanford Stroke Center

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John E. Cahill Family Professor  
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Director, Stanford Movement Disorders Center

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Psychiatry and Behavioral Sciences

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Robert C. and Jeannette Powell  
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**Robert Cowan, MD, FAAN**  
Clinical Professor, Neurology and Neurological Sciences and, by courtesy, of Anesthesiology, Perioperative and Pain Medicine

**John Day, MD, PhD**  
Director, Neuromuscular Division and Clinics

Professor of Neurology and Pediatrics, and, by courtesy, Pathology

**Robert Dodd, MD, PhD**  
Associate Professor of Neurosurgery, of Radiology and, by courtesy, of Otolaryngology-Head and Neck Surgery

**Juan C. Fernandez-Miranda, MD, FACS**  
Professor of Neurosurgery  
Co-Director, Stanford Skull Base Surgery Program  
Surgical Director, Stanford Pituitary Center  
Co-Director, Stanford Surgical Neuro-Oncology Program  
Director, Surgical Neuroanatomy, Fiber Tractography, and Virtual Simulation Lab

**Robert Fisher, MD, PhD**  
Director, Neurology Teaching  
The Maslah Saul Professor in the Department of Neurology  
Director, Stanford Epilepsy Center  
Professor, by courtesy, of Neurosurgery

**Carolyn Fredericks, MD**  
Clinical Assistant Professor, Neurology and Neurological Sciences

**Jamshid Ghajar, MD, PhD, FACS**  
Clinical Professor of Neurosurgery  
Director, Stanford Concussion and Brain Performance Center

**Michael Greicius, MD, MPH**  
Associate Professor of Neurology and Neurological Sciences, by courtesy, Psychiatry and Behavioral Sciences  
Director, Stanford Center for Memory Disorders

**Pejman Ghanouni, MD, PhD**  
Assistant Professor of Radiology (General Radiology) and, by courtesy, of Neurosurgery and of Urology

**Jaimie M. Henderson, MD**

Director, Stereotactic and Functional Neurosurgery

John and Jene Blume—Robert and Ruth Halperin Professor  
Professor, by courtesy, of Neurology

**Andrew Hoffman, MD**  
Vice Chair for Academic Affairs, Department of Medicine  
Professor of Medicine (Endocrinology)

**Michel Kliot, MD**  
Clinical Professor, Neurosurgery

**Michael Leong, MD**  
Clinical Associate Professor  
Department of Anesthesiology, Perioperative and Pain Medicine  
Clinical Associate Professor, by courtesy, Neurosurgery

**Joshua Levin, MD**  
Clinical Assistant Professor, Orthopaedic Surgery and Neurosurgery

**Frank M. Longo, MD, PhD**  
George E. and Lucy Becker Professor in Medicine, Department of Neurology and Neurological Sciences

Professor, by courtesy, of Neurosurgery

**Mitchell Miglis, MD**  
Clinical Assistant Professor, Neurology and Neurological Sciences and Psychiatry and Behavioral Sciences—Stanford Center for Sleep Sciences

**Seema Nagpal, MD**  
Clinical Assistant Professor of Neurology and Neurological Sciences and, of Neurosurgery

**John Ratliff, MD, FACS**  
Professor and Vice-Chair of Neurosurgery  
Co-Director of the Spine and Peripheral

Nerve Surgery Division  
**Sarada Sakamuri, MD**  
Clinical Assistant Professor of Neurology and Neurological Sciences  
Associate Director, Neuromuscular Medicine Fellowship

**Jacinda Sampson, MD, PhD**  
Clinical Associate Professor of Neurology and Neurological Sciences

**Yuen So, MD, PhD**  
Director, Neurology Clinics, Department of Neurology  
Professor of Neurology

**David Spiegel, MD**  
Associate Chair, Psychiatry and Behavioral Sciences  
Jack, Samuel and Lulu Willson Professor of Psychiatry and Behavioral Sciences

**Gary K. Steinberg, MD, PhD**  
Bernard and Ronni Lacroute-William Randolph Hearst Professor of Neurosurgery, and by courtesy, of Neurology  
Chair, Department of Neurosurgery  
Founder and Co-Director, Stanford Stroke Center

**Nirali Vora, MD**  
Director, Global Health Neurology  
Associate Residency Director, Adult Neurology  
Clinical Assistant Professor of Neurology and Neurological Sciences

**Tony Wyss-Coray, PhD**  
Professor of Neurology and Neurological Sciences

**Thomas J. Wilson, MD**  
Co-Director, Center for Peripheral Nerve Surgery  
Clinical Assistant Professor of Neurosurgery

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## PROGRAM *\*Program is subject to change.*

### Friday, October 12, 2018

7:30-8:30 am	Registration and Continental Breakfast
8:30-8:35	Welcome and Announcements <i>Jeffrey Dunn, MD, FAAN</i>
<b>8:35-10:10</b>	<b>BRAIN PERFORMANCE</b> <i>Moderator: Frank M. Longo, MD, PhD</i>
8:35-8:55	<b>Imaging of Dementia</b> <i>Michael Greicius, MD, MPH</i>
8:55-9:15	<b>Dementia: Emerging Treatment Options</b> <i>Frank M. Longo, MD, PhD</i>
9:15-9:35	<b>Concussion and Brain Performance</b> <i>Jamshid Ghajar, MD, PhD, FACS</i>
9:35-9:55	<b>Young Blood for Old Brains</b> <i>Tony Wyss-Coray, PhD</i>
9:55-10:10	<b>Q&amp;A</b>
10:10-10:25	BREAK
<b>10:25-12:00 pm</b>	<b>NEUROMUSCULAR DISEASES</b> <i>Moderator: Michel Kliot, MD</i>
10:25-10:45	<b>Emerging Treatment Prospects for Muscular Dystrophy</b> <i>John Day, MD, PhD</i>
10:45-11:05	<b>When to Order an EMG</b> <i>Sarada Sakamuri, MD</i>
11:05-11:25	<b>Novel Uses of Nerve Transfers</b> <i>Thomas J. Wilson, MD</i>
11:25-11:45	<b>Indications for Surgical Spine Treatment</b> <i>John Ratliff, MD, FACS</i>
11:45-12:00	<b>Q&amp;A</b>
12:00-1:00	LUNCH
<b>1:00-2:35</b>	<b>STROKE</b> <i>Moderator: Robert Dodd, MD, PhD</i>
1:00-1:20	<b>Medical Review 2018 to Optimize Stroke Risk Factors</b> <i>Nirali Vora, MD</i>
1:20-1:40	<b>Thrombolysis and Stroke Care Update 2018</b> <i>Gregory Albers, MD</i>
1:40-2:00	<b>Neurointerventional Stroke Management</b> <i>Robert Dodd, MD, PhD</i>
2:00-2:20	<b>Cerebrovascular Surgery and Stem Cell Transplantation</b> <i>Gary K. Steinberg, MD, PhD</i>
2:20-2:35	<b>Q&amp;A</b>
2:35-2:50	BREAK
<b>2:50-4:25</b>	<b>HEADACHE AND PAIN</b> <i>Moderator: Robert Cowan, MD, FAAN</i>
2:50-3:10	<b>Breakthrough in Migraine Management</b> <i>Robert Cowan, MD, FAAN</i>
3:10-3:30	<b>Technology for Back Pain</b> <i>Michael Leong, MD</i>
3:30-3:50	<b>Comprehensive Spinal Pain Management</b> <i>Joshua Levin, MD</i>
3:50-4:10	<b>Hypnotherapy for Chronic Pain</b> <i>David Spiegel, MD</i>
4:10-4:25	<b>Q&amp;A</b>
4:25-4:30	<b>Concluding Remarks</b> <i>Gary K. Steinberg, MD, PhD</i>
4:30	ADJOURN

### Saturday, October 13, 2018

7:30-8:30 am	Registration and Continental Breakfast
8:30-8:35	Welcome and Announcements <b>Stanford Neuroscience Center Introduction</b> <i>Michel Kliot, MD</i>
<b>8:35-10:10</b>	<b>MOVEMENT DISORDERS</b> <i>Moderator: Jaimie M. Henderson, MD</i>
8:35-8:55	<b>Deep Brain Stimulation for Movement Disorders</b> <i>Jaimie M. Henderson, MD</i>
8:55-9:15	<b>New Insights for Deep Brain Stimulation</b> <i>Helen Bronte-Stewart, MD, MSE, FAAN, FANA</i>
9:15-9:35	<b>Mind-Body-Technology Connections: Functional Movement Disorders and Immersive Reality Treatments</b> <i>Kim Bullock, MD</i>
9:35-9:55	<b>Focused Ultrasound Treatment for Movement Disorders</b> <i>Pejman Ghanouni, MD, PhD</i>
9:55-10:10	<b>Q&amp;A</b>
10:10-10:25	BREAK
<b>10:25-12:00 pm</b>	<b>NEURO-ONCOLOGY</b> <i>Moderator: Juan C. Fernandez-Miranda, MD, FACS</i>
10:25-10:45	<b>New Developments in Cushing's Disease</b> <i>Andrew Hoffman, MD</i>
10:45-11:05	<b>Advances in Chemotherapeutics for Brain Tumors</b> <i>Seema Nagpal, MD</i>
11:05-11:25	<b>Radiosurgical Treatment of Adult Brain Tumors</b> <i>Steven D. Chang, MD</i>
11:25-11:45	<b>Endoscopic Endonasal Surgery for Skull Base Tumors: From Lab to OR</b> <i>Juan C. Fernandez-Miranda, MD, FACS</i>
11:45-12:00	<b>Q&amp;A</b>
12:00-12:15	BREAK: Get lunch for Breakout Session
12:15-1:15	<b>LUNCH BREAKOUT SESSION: Advanced Techniques of the Neurological Exam</b> <i>Jeffrey Dunn, MD, FAAN</i> <i>Carolyn Fredericks, MD</i> <i>Michel Kliot, MD</i> <i>Yuen So, MD</i>
<b>1:15-2:50</b>	<b>EPILEPSY/ALTERED MENTAL STATUS/WRAP UP</b> <i>Moderator: Robert Fisher, MD, PhD</i>
1:15-1:35	<b>Assessing the Autonomic Nervous System</b> <i>Mitchell Miglis, MD</i>
1:35-1:55	<b>Polynucleotide Repeat Disorders: the Dark Matter of the Neurogenetic Universe</b> <i>Jacinda Sampson, MD, PhD</i>
1:55-2:15	<b>Epilepsy and Neurostimulation Update 2018</b> <i>Robert Fisher, MD, PhD</i>
2:15-2:35	<b>CNS Demyelinating Disease and Biomarkers</b> <i>Jeffrey Dunn, MD, FAAN</i>
2:35-2:50	<b>Q&amp;A</b>
2:50-3:00	<b>Closing Remarks</b> <i>Frank M. Longo, MD, PhD</i>
3:00	ADJOURN

*\*Opportunities for Q&A will be provided at the conclusion of each program section.*

To register and pay online, visit <http://cme.stanford.edu/neuro>

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### REGISTRATION

Registration fee includes course materials, certificate of participation, and daily breakfast and lunch.

ATTENDEE TYPE	FEES	
	Early Bird Rate	After 9/12/18
Physicians	\$525	\$675
Nurses and Allied Health Professionals	\$350	\$425

Register online with Visa or Master Card by visiting [cme.stanford.edu/neuro](http://cme.stanford.edu/neuro).

If you prefer to pay by check or need assistance, please call (650) 497-8554 or email [stanfordcme@stanford.edu](mailto:stanfordcme@stanford.edu). Be sure to register with an email address that you check frequently. Your email address is used for critical information, including registration confirmation, evaluation, and certificate.

### CANCELLATION POLICY

Cancellations received in writing no less than 30 days before the course will be refunded, less a 20% administrative fee. No refunds will be made on cancellations received after that date. Please send cancellation requests to [stanfordcme@stanford.edu](mailto:stanfordcme@stanford.edu).

Stanford University School of Medicine reserves the right to cancel this program; in the event of cancellation, course fees will be fully refunded.



**CONFERENCE LOCATION**  
Li Ka Shing Center for Learning and Knowledge  
291 Campus Drive, Stanford, CA  
(650) 725-6884

### ACCOMMODATIONS

Nearby Hotels:

- Sheraton Palo Alto Hotel (650) 328-2800
- The Westin Palo Alto (650) 321-4422

Please contact the hotel directly to secure a reservation.

Additional hotel options:

<http://visit.stanford.edu/plan/lodging>.

### VISITING STANFORD UNIVERSITY

To learn more about traveling to Stanford University, please browse [visit.stanford.edu](http://visit.stanford.edu).

### CONTACT INFORMATION

For questions about the symposium, please contact Mary Sisney, CME Conference Coordinator at (650) 724-7166 or [msisney@stanford.edu](mailto:msisney@stanford.edu).

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