The UCLA Comprehensive Stroke Center and Neurovascular Program present the 23rd Annual UCLA Brain Attack! '18 Symposium on State-of-the-Art Stroke Management

Sponsored by:

UCLA COURSE DIRECTOR
Sidney Starkman, MD
Director, Emergency Neurology, Departments of Emergency Medicine and Neurology

UCLA FACULTY PLANNING COMMITTEE
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Sponsored by:

In association with:

American Heart Association
American Stroke Association

NATIONAL STROKE ASSOCIATION
HOPE AFTER STROKE
Saturday, May 5, 2018

7:30 AM  Registration and Continental Breakfast

8:00  Welcome - S. Thomas Carmichael, MD, PhD

8:10  Stroke Prevention in Atrial Fibrillation: Medical and Device Therapies  
Noel G. Boyle, MD, PhD

8:40  Patent Foramen Ovale Closure and Medical Treatment: Decision-Making in the Era of Evidence-Based Device Therapy  
Jamil A. Aboulhosn, MD

9:10  Faster and Smarter at Primary Stroke Centers: Door to Needle, Door In Door Out, and Calibrated Patient Care  
Neal M. Rao, MD

9:40  Break

10:00  Thrombectomy – Magnitude of Benefit in Early and Late-Presenting Patients and New Devices  
Reza Jahan, MD

10:45  Using Neuroimaging to Identify Patients Who Will Benefit from Stroke Therapies  
Bryan Y. Yoo, MD

11:15  The Role of Collaterals in Determining Fast and Slow Progressors  
David S. Liebeskind, MD

11:45  Changing the Landscape of Stroke Pre-Hospital Care: In-Field Experience from California’s First Mobile Stroke Unit  
May Nour, MD, PhD

12:15 PM  Lunch

1:30  Afternoon Remarks - Gregory W. Hendey, MD

1:40  Update on Brain Aneurysms: to Treat or Not to Treat  
Geoffrey P. Colby, MD, PhD

2:10  Advances in the Endovascular Treatment of Cerebral Aneurysms  
Satoshi Tateshima, MD, PhD

2:40  Moyamoya Disease and Pediatric Stroke  
Anthony C. Wang, MD

3:10  Break

3:30  Optimizing Recovery Beyond the First Three Months  
Bruce H. Dobkin, MD

4:00  Code Brain: Code Stroke Patients without Stroke  
Lucas Restrepo, MD, PhD

4:30  Ideal Stroke Prevention: PCSK9 Inhibitors, New Blood Pressure Goals, and the End of Atherosclerosis  
Jeffrey L. Saver, MD

5:00  Adjourn
COURSE OBJECTIVES

At the conclusion of this program participants should be able to:

• Utilize recent advances in the treatment of atrial fibrillation and in the treatment of atherosclerosis
• Apply methods to accelerate time to thrombolysis and time to endovascular intervention
• Summarize recent developments in endovascular treatment of acute ischemic stroke
• Employ recent developments in management of intracranial aneurysms, Moyamoya disease, and pediatric stroke

TARGET AUDIENCE

Neurologists, Neurosurgeons, Interventional Neuroradiologists, Emergency Physicians, Family Practice Physicians, Internists, and other health care professionals who want to enhance their knowledge of the management of patients with cerebrovascular diseases.

FACULTY

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Assistant Professor of Neurosurgery*

Bryan Y. Yoo, MD
Assistant Clinical Professor of Radiology*
Division of Neuroradiology

*David Geffen School of Medicine at UCLA
Acute Treatment
For patients with new onset stroke symptoms, a “Brain Attack” rapid care program provides:
- immediate evaluation by emergency physicians and neurologists
- CT / MRI scan within minutes of emergency department arrival
- prompt neurovascular intensive/intermediate level care
- trials of novel therapies for ischemic and hemorrhagic stroke and acute interventional and surgical therapies.

Stroke in Children and Young Adults
Experts in pediatric neurology, neurosurgery, interventional and diagnostic neuroradiology, and stroke neurology work together at the UCLA Comprehensive Stroke Center to provide comprehensive evaluation and treatment for pediatric and young adult patients with cerebrovascular disorders including Moyamoya syndrome, sickle cell anemia, hyper-coagulable states, cardioembolic stroke, arteriovenous malformations, and aneurysms.

Rehabilitation
The newly opened California Rehabilitation Institute is a 138 bed free-standing acute rehabilitation hospital in Century City that is a joint venture with UCLA and Cedars-Sinai, and provides state-of-the-art care to maximize recovery for patients with stroke.

Carotid Endarterectomy
Microneurosurgical endarterectomy, with intraoperative brain monitoring, is available for asymptomatic and symptomatic carotid artery stenosis.

Perfusion
For patients eligible to receive intravenous tPA, thrombolysis is rapidly administered. In addition, neurointerventionalist teams are available around the clock to perform emergency endovascular neurothrombectomy procedures.

Carotid and Intracranial Angioplasty and Stenting
UCLA provides angioplasty and stenting for selected patients with intracranial and extracranial carotid or verteobasilar stenoses.

NIH Studies
The UCLA Comprehensive Stroke Center is a co-lead center for the NIH Los Angeles-Southern California StrokeNET, one of twenty-five regional networks in the country for performing studies of stroke prevention, acute treatment, and recovery. In addition, UCLA is the coordinating center for the Los Angeles Neurological Emergency Treatment Trials (LA-NETT), which is a network conducting a number of clinical trials in emergency neurology, including acute stroke and status epilepticus.

Prevention
The Stroke Clinic provides comprehensive evaluation and treatment recommendations for individuals at increased risk for ischemic and hemorrhagic stroke, including those with atrial fibrillation, carotid artery stenosis, transient ischemic attacks, and newly diagnosed unruptured aneurysms or vascular malformations.
Cerebral Aneurysms, Moyamoya Disease, and Pediatric Stroke

Tremendous strides have been made in the management of complex vascular lesions of the brain and spinal cord. This symposium will provide a review of the basic principles of clinical and interventional management of cerebral aneurysms and subarachnoid hemorrhage. Developments in microsurgical and endovascular techniques will be discussed. Also, Moyamoya disease and pediatric stroke will be reviewed.

THE UCLA NEUROVASCULAR PROGRAM

The UCLA Neurovascular Program has developed management protocols for the diagnosis and treatment of cerebrovascular disorders which incorporate diagnostic and interventional neuroradiology, microneurosurgery, stereotactic radiosurgery, neuroanesthesiology, neurocritical care, and intensive medical management. The members of the UCLA Neurovascular team have worked cooperatively for three decades with all of the management components available on-site at UCLA, allowing for efficient coordination of the various techniques.

Neurovascular Disorders Treated at UCLA:

**Intracranial Aneurysms**
Ruptured intracranial aneurysms may be treated either surgically or by endovascular technique. Postoperatively, transcranial Doppler and cerebral blood flow studies are available to assess for the development of vasospasm. Severe, medically refractory vasospasm is treated using balloon dilation angioplasty and or pharmcologic intra-arterial infusion, performed by the interventional neuroradiology team. Giant and complex aneurysms often require treatment using new endovascular techniques of flow diversion or extracranial-intracranial arterial bypass.

**Arteriovenous Malformations (AVMs)**
The Neurovascular Program has extensive experience in the management of large and complex AVMs in children and adults, which are generally treated with embolization followed by microneurosurgical resection. Functional brain mapping for surgical planning is a critical component of management of AVMs. Deep and critically located AVMs are treated with stereotactic radiosurgery which is combined with embolization in larger lesions. Dural arteriovenous malformations are usually treated definitively by embolization alone, but in some complex cases, surgery or combined techniques are necessary. Spinal AVMs are treated by microsurgical excision, endovascular therapy, or most commonly, a combination of the two techniques. UCLA is also a designated HHT (hereditary hemorrhagic telangiectasia) Center of Excellence, and provides treatment for the whole range of lesions, including brain AVMs, that are seen in families.

**Cavernous Angiomas of the Brain, Brain Stem, and Spinal Cord**
Cavernous angiomas are generally treated by microsurgical excision when they have caused significant symptoms. Lesions of the brain stem and spinal cord can now be treated successfully using microneurosurgical techniques, when appropriate, usually in combination with intraoperative electrophysiologic monitoring.

**Vein of Galen Malformations**
Transarterial and transvenous endovascular approaches are employed to reduce flow through the fistula, combined in some cases with neurosurgical treatment.

**Intracranial Arterial Stenosis**
Stroke due to narrowing of the brain arteries carries one of the highest rates of recurrent stroke, as much as 25 percent. Treatment of narrowing of the intracranial arteries is performed by a multidisciplinary team of experts in both medical management and novel endovascular and surgical revascularization techniques, including angioplasty, stenting, bypass, and indirect revascularization surgeries.

UCLA Medical Center Facilities:

**Stroke Unit**
UCLA’s Acute Stroke Unit, one of the first in the nation, offers comprehensive, cutting edge acute inpatient care for patients suffering from cerebral infarction, hemorrhage or other cerebrovascular diseases.

**UCLA Neurocritical Care**
The UCLA Neurocritical Care program is an internationally acclaimed center of excellence in patient care, training, and research. The 24-bed Singleton Neuro-ICU features numerous state-of-the-art technologies including continuous EEG monitoring, cerebral microdialysis, brain oximetry, transcranial doppler, the world’s first ICU Robot (InTouch Health), and a comprehensive ICU Supercomputing System.

**California Rehabilitation Institute**
The California Rehabilitation Institute provides acute rehabilitation during the initial time of complex medical and neurological recovery post stroke with the goal of reducing the impairments and disability associated with stroke and maximizing recovery.

**UCLA Clinical Image Processing Laboratory**
The laboratory is equipped with a full spectrum of 3D, image fusion, and post-processing software for cerebrovascular structural and perfusion study analysis.

**Neurosurgical Operating Rooms**
The state-of-the-art neurosurgical operating rooms at UCLA, which accommodate more than 1,200 cases annually, include video systems for viewing microsurgical procedures, electrophysiologic equipment for brain monitoring, intraoperative angiography, and a frameless stereotactic imaging workstation (BrainLAB).

**UCLA Cerebral Blood Flow Laboratory (Clinical)**
This facility provides comprehensive transcranial Doppler evaluations and cerebral blood flow testing on inpatients and outpatients.

**Interventional Neuroradiology Suites**
The interventional neuroradiology suites are equipped with the latest digital equipment, including 3-D rotational angiography designated for the performance of endovascular procedures. More than 400 such procedures are performed annually at UCLA.

**Stereotactic Radiosurgery**
The stereotactic radiosurgery section at UCLA utilizes state-of-the-art instrumentation for the treatment of vascular malformations of the brain. This multidisciplinary effort of neurosurgeons, physicists, radiologists, and radiation oncologists is planned on a three-dimensional and multiplanar computerized model using high resolution brain mapping imaging techniques.

**Henry and Arline Gluck Mobile Stroke Rescue Program**
UCLA has developed a Mobile Stroke Unit (mobile CT ambulance) for advanced diagnosis, triage, and treatment of prehospital patients, including prehospital thrombolysis for acute ischemic stroke and prehospital reversal of anticoagulation for acute intracranial hemorrhage.

UCLA Comprehensive Stroke Center website: www.stroke.ucla.edu

**Stroke Neurology 310-794-6379**
**Interventional Neuroradiology 310-267-8761**
**Neurocritical Care 310-267-9448**
**Emergency Neurology 310-794-0600**
Selected Advances in Stroke Care and Research from THE UCLA COMPREHENSIVE STROKE CENTER

- **First device therapy for acute ischemic stroke**
  - Coil Retriever, Stent Retriever
  - Invented/Developed at UCLA

- **Leading device therapies for cerebral aneurysms**
  - Guglielmi detachable coil, Matrix coil
  - Invented at UCLA

- **Leading catheter therapy for intracranial arteriovenous malformations and fistulae**
  - Onyx liquid embolic agent
  - Developed at UCLA

- **First MRI demonstration of successful reversal of advanced stroke injury in humans**

- **First validated instrument for paramedic recognition of stroke**
  - Los Angeles Prehospital Stroke Screen (LAPSS)

- **First validated instrument for paramedic recognition of large vessel occlusion (LVO)**
  - Los Angeles Motor Scale (LAMS)

- **First prehospital neuroprotective treatment of stroke trial**
  - Field Administration of Stroke Therapy - Magnesium (FAST-MAG)

- **First stroke device studied utilizing FDA approved exception from informed consent under emergency circumstances**

- **First multi-center trial of body weight-supported treadmill training and drug therapies for stroke**

- **First clinical cellphone PACS system for remote review of CT and MRI scans in acute stroke**
  - Developed at UCLA

- **First US multicenter trial of endoscopic treatment for acute intracerebral hemorrhage**

- **First trial of indirect revascularization for patients with intracranial atherosclerosis**

- **First routine use of intraoperative digital subtraction angiography for evaluation after surgical aneurysm and AVM treatment**

- **First Neuro ICU-adjacent comprehensive stroke imaging center with CT, PET, 3T MRI**

- **First ICU and ED robot for remote monitoring of stroke patients**

- **First cerebral blood flow laboratory to use bedside xenon CBF studies and TCD for stroke critical care and research**

- **First clinical information system with acute stroke management dashboard**

- **First to deploy write-once, write-everywhere stroke note for clinical documentation and automated quality and research database completion**

- **First systematic secondary prevention program for cerebral atherosclerosis**
  - Preventing Recurrence of Thromboembolic Events through Coordinated Treatment (Stroke PROTECT Program)

- **First accredited undergraduate program for Student Stroke Research**
  - UCLA Student Stroke Team

- **First accredited undergraduate program for Stroke Community Education and Research**
  - UCLA Stroke Force

- **First confirmation that stroke diagnosis in the field by paramedics and neurologists by cell phone is highly accurate**
  - Field Administration of Stroke Therapy - Magnesium (FAST-MAG)

- **First validation of wearable, remote wireless health monitoring for stroke**
  - Developed by UCLA Wireless Health Institute faculty and students

- **First medical system in the Western United States to operate a Mobile Stroke Unit**
  - UCLA Arline and Henry Gluck Stroke Rescue Program
ENROLLMENT - Extremely Limited.

**EARLY ENROLLMENT IS ADVISED**

We accept American Express, MasterCard, Visa, and Discover.

Online Registration

By Phone: Call (310) 794-2620.

ENROLLMENT FEES

Includes course registration, syllabus, continental breakfast, break refreshments, and lunch.

- $200 Early Enrollment
- $225 (After April 6th)
- $150 UC Faculty/Staff

LOCATION

UCLA Carnesale Commons
251 Charles E. Young Drive, West
Los Angeles, CA 90095
(see next page for map and directions)

PARKING

From 7:00 AM to 1:00 PM, a $12 pre-paid parking permit will be supplied by the course and provided to you at the Sunset Village parking structure entrance for non-UCLA attendees.

Please convey that you are attending the UCLA Brain Attack! Symposium and the attendant will issue you the pre-paid parking permit.

If you arrive outside the specified time frame, you may purchase a parking permit at the Westwood parking kiosk off Westwood Boulevard at your own expense of $12, cash only.

ACCREDITATION

The Office of Continuing Medical Education, David Geffen School of Medicine at UCLA is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Office of Continuing Medical Education, David Geffen School of Medicine at UCLA designates this live activity for a maximum of 7.00 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Disclosure

The FDA has issued a concept paper which classifies commercial support of scientific and educational programs as promotional unless it can be affirmed that the program is “truly independent” and free of commercial influence. In addition to independence, the FDA requires that non-promotional, commercially supported education be objective, balanced, and scientifically rigorous. The policy further states that all potential conflicts of interest of the CME staff and faculty be fully disclosed to the program’s participants. In addition, Accreditation Council for Continuing Medical Education policy mandates that the provider adequately manages all identified potential conflicts of interest prior to the program. We at UCLA fully endorse the letter and spirit of these concepts.

Refunds

Cancellations must be received in writing by April 6, 2018, and will be subject to a $75 processing fee. No refunds will be given after that date. If, for any reason, the course must be canceled, discontinued, or rescheduled by the Office of Continuing Medical Education, a full refund will be provided. You may fax your refund request to 310-794-2624.

ACCOMMODATIONS

Although not specifically endorsed by this conference, a list of hotels conveniently located to UCLA is available here: http://www.uclahealth.org/Pages/patients/lodging.aspx

For additional information

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DRIVING DIRECTIONS
From the 405 Freeway
Exit on Sunset Blvd. Proceed EAST on Sunset Blvd. and enter the campus by turning RIGHT onto Bellagio Drive. Proceed to the stop sign at the top of the hill. Turn LEFT at the stop sign onto De Neve Drive. Proceed 3/10 of a mile down the hill to the SV (Sunset Village) parking structure. The structure will be on your right. Turn RIGHT into the parking structure.

The Symposium organizing committee would like to thank Nathalie Kaldjian, graphic artist in UCLA Facilities Management Geographic Information Systems, for creating the map.