

The UCLA Stroke Center and Neurovascular Program present the

XIXTH ANNUAL

UCLA

BRAIN ATTACK! '14

A State-of-the-Art Symposium on Stroke Management

SATURDAY • MAY 17 • 2014

Beverly Hills Hotel 9641 Sunset Boulevard, Beverly Hills, CA 90210

UCLA Course Director:

Sidney Starkman, MD

Director, Emergency Neurology, Departments of Emergency Medicine and Neurology

UCLA Faculty Planning Committee:

Bruce Dobkin, MD

Director, Neurological Rehabilitation and Research Program, Department of Neurology

Gary Duckwiler, MD

Director, Division of Interventional Neuroradiology, Department of Radiology

Neil Martin, MD

Chair, Department of Neurosurgery

Jeffrey Saver, MD

Director, Stroke Neurology, Department of Neurology

Paul Vespa, MD

Director, Neurocritical Care, Departments of Neurosurgery and Neurology

Sponsored by:



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UCLA

BRAIN ATTACK! '14

A State-of-the-Art Symposium on Stroke Management

Saturday, May 17, 2014

7:30AM Registration and Continental Breakfast

STROKE PREVENTION

8:00 Update on Stroke Prevention in Atrial Fibrillation: Utilizing Novel Oral Anticoagulants and Role of Cardiac Devices
Noel Boyle, MD, PhD

8:30 Present and Future Treatment of Cervical and Intracranial Arterial Stenosis
Neil Martin, MD and Nestor Gonzalez, MD

9:15 Imaging Transient Ischemia to Avert Stroke
David Liebeskind, MD

ISCHEMIC STROKE

9:45 Imaging Appropriate for Acute Stroke Management
Bryan Yoo, MD

10:15 Break

VASCULAR MALFORMATIONS

10:30 Managing Unruptured Arteriovenous Malformation
Nancy McLaughlin, MD, PhD, FRCSC

11:00 Interventional Management of AV Malformations and Dural Fistulas
Viktor Szeder, MD, PhD, MSc

BEYOND THE HOSPITAL

11:30 Advances in Pre-Hospital and Emergency Department Stroke Care
Latisha Ali, MD

12:00PM Lunch

Saturday, May 17, 2014 (cont.)**HOT TOPICS IN STROKE CARE**

- 1:00 Pre-Hospital Stroke Care: Neuroprotection and Thrombolysis in the Field
Sidney Starkman, MD and Jeffrey Saver, MD
- 1:45 Warp Speeds: Shortening Door to Needle and Door to Puncture Time
Neal M. Rao, MD
- 2:15 *Break*

HEMORRHAGIC STROKE

- 2:30 Current Management of Cerebral Aneurysms
Satoshi Tateshima, MD, PhD
- 3:00 Controversies in the Practical Management of Intracerebral Hemorrhage
Paul Vespa, MD
- 3:30 Unfolding Amyloid Angiopathy
Lucas Restrepo, MD, PhD

NEUROREHABILITATION

- 4:00 From Hospital to Home: Advancements in Rehabilitation
Andrew Dorsch, MD

STROKE SYSTEMS

- 4:30 Stroke Regional Networks for Treatment and Research
Jeffrey Saver, MD
- 5:00 Adjourn

COURSE OBJECTIVES

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

- *Describe recent developments in stroke prevention strategies*
- *Discuss standard and new treatment options for cerebrovascular diseases*
- *Understand the significance of primary and secondary stroke center designations*

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

Latisha Katie Ali, MD

Assistant Clinical Professor of Neurology*
Director, UCLA TeleStroke Program

Noel G. Boyle, MD, PhD

Professor of Medicine*
Director, Cardiac Electrophysiology Labs
& Electrophysiology Fellowship Program

Andrew Dorsch, MD

Assistant Clinical Professor*
Department of Neurology

Nestor R. Gonzalez, MD

Associate Professor of Neurosurgery and Radiology*
Ruth and Raymond Stotter Endowed Chair
in Neurosurgery
Director of Education, Interventional Neuroradiology

David S. Liebeskind, MD

Professor of Clinical Neurology*
Neurology Director, Stroke Imaging
Director, UCLA Vascular Neurology Residency Program
Associate Neurology Director, UCLA Stroke Center

Neil Martin, MD

Professor and W. Eugene Stern Chair*
Department of Neurosurgery

Nancy McLaughlin, MD, PhD, FRCSC

Assistant Clinical Professor*
Department of Neurosurgery

Neal M. Rao, MD

Visiting Assistant Professor of Neurology*
Director, Olive View-UCLA Medical Center Stroke
Program

Lucas Restrepo, MD, PhD

Assistant Clinical Professor*
Department of Neurology

Jeffrey Saver, MD

Professor of Clinical Neurology*
Director of Stroke Neurology
Director of UCLA Stroke Unit

Sidney Starkman, MD

Clinical Professor of Emergency Medicine
and Neurology*
Co-Director, UCLA Stroke Center
Director, UCLA Stroke Network

Viktor Szeder, MD, PhD, MSc

Assistant Clinical Professor*
Co-Director, Fellowship Program
Division of Interventional Neuroradiology

Satoshi Tateshima, MD, PhD

Associate Clinical Professor*
Division of Interventional Neuroradiology

Paul Vespa, MD

Professor of Neurosurgery and Neurology*
Director, Neurocritical Care

Bryan Y. Yoo, MD

Assistant Clinical Professor of Radiology*
Division of Neuroradiology

* David Geffen School of Medicine at UCLA

BRAIN ATTACK! '14

ISCHEMIC STROKE:

Thrombolysis and Emergency Treatment, Prevention and Rehabilitation

The UCLA Stroke Center presents its annual Brain Attack symposium to review the practical, clinical aspects of stroke prevention, diagnosis, and treatment. The course will cover stroke risk factors, diagnostic testing, and medical and interventional therapy.

Intravenous tPA is currently the only approved therapy for treatment of acute ischemic stroke. The results of recent studies suggest that neurointerventional techniques of intra-arterial mechanical and/or pharmacologic thrombolysis can be beneficial up to 8 hours after symptom onset in most patients, and beyond 8 hours in select patients. A highly coordinated team approach is required to provide these treatments safely and effectively.

Neuroimaging techniques are playing an increasingly important role in the evaluation of stroke patients. Faculty will provide an in-depth discussion of innovative MR and CT techniques.

The UCLA Stroke Center

The UCLA Stroke Center maintains a comprehensive treatment and clinical trials program for patients with cerebrovascular disorders. The UCLA Stroke Center – the first Joint Commission certified primary stroke center in Los Angeles County, now certified as a Comprehensive Stroke Center – provides multidisciplinary care for patients with stroke and kindred disorders including prevention, acute brain rescue, interventional neuroradiological and surgical therapy, and multimodal rehabilitation. The UCLA Stroke Center's treatment approach includes emergency physicians, stroke neurologists, vascular neurosurgeons, vascular surgeons, diagnostic and interventional neuroradiologists, and rehabilitation physicians.

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 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.

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.

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

Cerebral and Carotid Angioplasty and Stenting: UCLA provides angioplasty and stenting for selected patients with intracranial and extracranial carotid/vertebrobasilar stenoses.

Thrombolysis: For patients eligible to receive intravenous tPA, thrombolysis is rapidly administered. In addition, interventional neuroradiologic teams are available around the clock to deliver, for selected patients, endovascular or intra-arterial pharmacologic and mechanical thrombolysis.

NIH Studies: The UCLA 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 ischemic and hemorrhagic stroke.

Rehabilitation: The inpatient Neurologic Rehabilitation and Research Unit and complementary outpatient rehabilitation facilities provide state-of-the-art care to maximize recovery for patients with stroke.

UCLA Stroke Hotline for Acute Cases: 1-877-DrStroke (1-877-377-8765)

Stroke Neurology: jsaver@ucla.edu or 310-794-6379

Vascular Neurosurgery: Neil Martin, M.D., Nestor Gonzalez, M.D. 310-825-5111

Inpatient Rehabilitation and Research Unit: 310-794-6556

Neurosurgery Clinic: 310-794-1572 (outpatient)

Emergency Neurology: starkman@ucla.edu or 310-794-0594

UCLA Transfer Center: 310-825-0909

UCLA Stroke Center: www.stroke.ucla.edu

UCLA Stroke Protect: www.strokeprotect.mednet.ucla.edu

UCLA TeleStroke: www.telestroke.ucla.edu

UCLA Interventional Neuroradiology: www.aneurysm-stroke.com

BRAIN ATTACK! '14

Atherosclerosis, Aneurysms, and Cerebrovascular Malformations

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 radiologic management of carotid and intracranial stenoses, subarachnoid hemorrhage and aneurysms, and vascular malformations. Developments in microsurgical and endovascular techniques as well as critical care neurology will be discussed.

The UCLA Neurovascular Program

The UCLA Neurovascular Program has developed management protocols for the diagnosis and treatment of cerebrovascular disorders which incorporate recent developments in stroke neurology, microneurosurgery, diagnostic and interventional neuroradiology, stereotactic radiosurgery, neuroanesthesiology, and critical care. The members of the UCLA Neurovascular team have worked cooperatively since 1986 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 pharmacologic intra-arterial infusion, performed by the interventional neuroradiology team. Giant and complex aneurysms often require combined treatment using endovascular techniques in conjunction with extracranial-intracranial arterial bypass, or surgery under hypothermic circulatory arrest.

Arteriovenous Malformations (AVMs)

The Neurovascular Program has extensive experience in the management of large 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.

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, 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 Stroke Center website <http://www.stroke.ucla.edu>

Vascular Neurosurgery 310-825-5482

Stroke Neurology 310-794-6379

Interventional Neuroradiology 310-267-8761 or 310-267-8762

Neurocritical Care 310-267-9448

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 Super-computing System.

Neurologic Rehabilitation and Research Unit

The NRRU 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 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 angiography 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.

Selected Advances in Stroke Care and Research from the **UCLA Stroke Center**

- **First device therapy for acute ischemic stroke**
 - MERCI Retriever
 - Invented 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 as liquid embolic agent for intracranial arteriovenous malformations and fistulae
 - 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 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 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 Thrombo-embolic Events through Co-ordinated 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

SYMPOSIUM INFORMATION

ENROLLMENT - *Extremely Limited.*

****EARLY ENROLLMENT IS ADVISED****

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

Online Registration

Please follow registration procedures located at www.cme.ucla.edu - Click on "Courses" on the left side of the page. Then click on "**UCLA Brain Attack! '14**".

FAST-MAG Investigators and UCLA Stroke Center Family: Visit our website for special instructions. **Do not complete the online registration process.** Please print and complete the corresponding form and fax to (310) 794-0599.

By Phone: Call (310) 794-2620.

TUITION

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

\$200 Early Enrollment

\$225 (After April 18th)

\$150 UC Faculty/Staff

Free FAST-MAG Physician Investigators
(Tuition is covered by FAST-MAG Grant.)

LOCATION

Beverly Hills Hotel

9641 Sunset Boulevard
Beverly Hills, CA 90210

(see next page for map and directions)

PARKING

Valet Parking is \$15 for the event.

ACCOMMODATIONS

Reservations at the Beverly Hills Hotel are subject to availability. Early reservations are suggested.

Mention the **UCLA Brain Attack! '14 Symposium** to inquire about the availability of a special conference rate.

For reservations, please call the Beverly Hills Hotel directly: **310-276-2251**.

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 **7.5 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 now 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 18, 2014, and will be subject to a \$50 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.

FOR ADDITIONAL INFORMATION

Contact the Office of Continuing Medical Education, David Geffen School of Medicine at UCLA, Brain Attack! '14, 10920 Wilshire Blvd, Suite 1060, Los Angeles, CA 90024-6512
Telephone: 310-794-2620
E-Mail: EAYala@mednet.ucla.edu

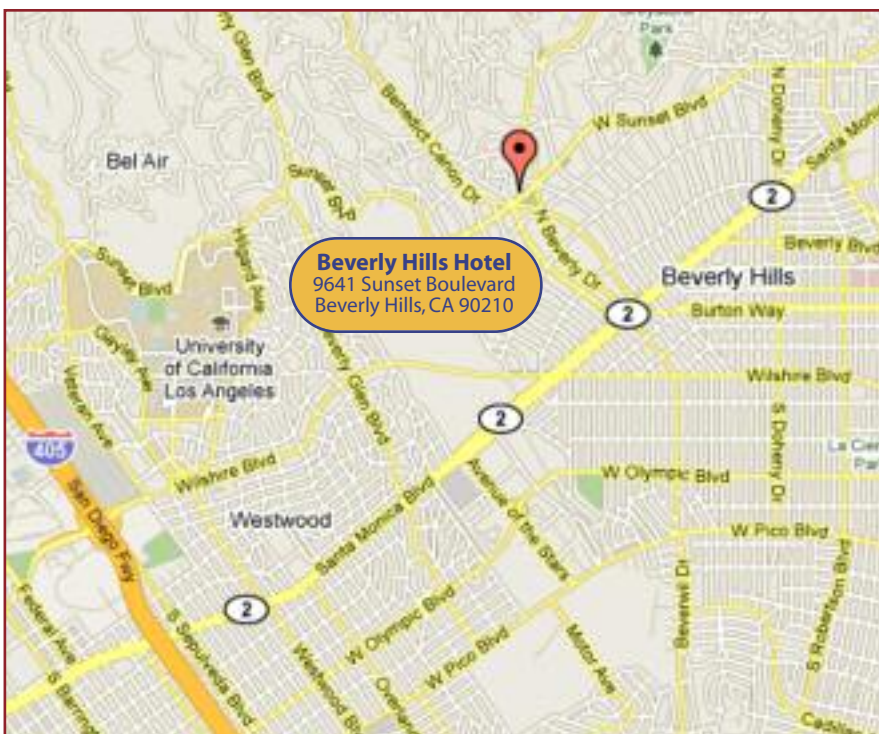
Beverly Hills Hotel

9641 Sunset Boulevard
Beverly Hills, CA 90210
(310) 276-2251



The Beverly Hills Hotel, One of the Dorchester Collection.

Located on world-famous Sunset Boulevard, on 13 acres in the center of Beverly Hills, The Beverly Hills Hotel is surrounded by lush tropical gardens, exotic flowers, and private walkways, which offer privacy and tranquility in a true residential setting.



DIRECTIONS

From Los Angeles International Airport (LAX)

- Travel east on Century Boulevard to the 405 N
- Take the 405 North to Sunset Boulevard
- Exit at Sunset Boulevard
- Turn right, traveling east for four miles
- The Beverly Hills Hotel is on the left
- Turn left at Crescent Drive into the driveway

PARKING

Valet Parking is \$15 for the event.