The Department of Neurosurgery at the David Geffen School of Medicine at UCLA presents its second annual comprehensive update on emerging diagnostic and treatment modalities for diseases of the brain and spine drawing upon the department's world class neurosurgical indications.

COURSE OBJECTIVES

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

• R eview multidisciplinary approaches to intracranial disease in the pediatric population
• D efine the role of surgery in neuro-oncology
• D etermine the appropriate approach to tumors of the pituitary gland and sellar region
• C onstruct a logical plan for the surgical management of aneurysms
• D etermine the role of minimally invasive approaches to intracranial disease
• D etermine the role of endovascular and radiosurgical techniques for intracranial disease
• D evelop a systematic approach to the multifaceted management of brain trauma
• C onstruct a logical plan for the surgical management of intracranial hemorrhage
• D evelop a logical plan for the management of cavernous malformations
• C onstruct a logical plan for the treatment of arteriovenous malformations
• R eport a systematic approach to the multimodal management of brain trauma
• P ractice evidence-based care in the management of acute spinal injury

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 17.5 CME credits.

The Office of Continuing Medical Education, David Geffen School of Medicine at UCLA designates this activity for up to 17.5 AMA PRA Category 1 Credits™.

The Office of Continuing Medical Education, David Geffen School of Medicine at UCLA designates this activity for up to 17.5 AMA PRA Category 1 Credits™.

FINANCIAL DISCLOSURE

No commercial interest in the planning of this program has a financial interest in any proprietary pharmaceutical or device used in the presentation.

The FDA has issued a concept paper which classifies commercial support of scientific and educational activities as provided for continuing medical education.

Conflict of Interest

1. The Ontario government has reached a settlement with a leading international pharmaceutical company. The government has agreed to pay $200 million to settle the lawsuit.

CME STAFF AND FACULTY

Kevin Foley, MD
Professor, Neurosurgery & Orthopedic Surgery, University of Tennessee Health Science Center

Guest Speaker
Division of Functional Neurosurgery
Associate Professor and Vice Chair, UCLA Department of Neurosurgery

COURSE DIRECTORS

Luke Macyszyn, MD, MA
Assistant Program Director, Neurosurgery

Anthony Wang, MD
Neurosurgery and Neurology

Jean-Philippe Langevin, MD
Neurosurgery

Won Kim, MD
Professor

Linda Liau, MD, PhD, MBA
Neurosurgery

Langston Holly, MD
Professor

FACULTY

Ausaf Bari, MD, PhD
Assistant Professor

Manuel M. Buitrago Blanco, MD, PhD
Assistant Professor

Geoffrey Colby, MD, PhD
Assistant Professor

Aria Fallah, MD, MSc
Assistant Professor

Rich Everson, MD
Assistant Professor

Marvin Bergsneider, MD
Professor

Kevin Foley, MD
Professor Emeritus

Resources

The Office of Continuing Medical Education, David Geffen School of Medicine at UCLA designates this activity for up to 17.5 CME credits.

MARATHON SANTA MONICA

There is a very limited number of hotel rooms available at a discounted rate of $379, first come, first served basis. The special rate is available from February 28-March 2, 2019. To book a room, please email Jasmin Hernandez at hjhernandez@mednet.ucla.edu.

Parking
Discounted valet day parking is $15.

Location
1700 Ocean Ave, Santa Monica, CA 90401
Loews Santa Monica Beach Hotel, 310-458-6700

CME STAFF AND FACULTY

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COURSE DIRECTORS

Nader Pouratian, MD, PhD
Associate Professor and Vice Chair
Division of Functional Neurosurgery
UCLA Department of Neurosurgery

Luke Macyszyn, MD, MA
Assistant Professor
Departments of Neurosurgery & Orthopaedics
Associate Program Director, Neurosurgery
Spinal Deformities and Tumor Surgery

GUEST SPEAKER

Kevin Foley, MD
Professor, Neurosurgery & Orthopedic Surgery
University of Tennessee Health Science Center

FACULTY
David Geffen School of Medicine at UCLA

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Assistant Professor
Neurosurgery

Ulrich Batzdorf, MD
Professor Emeritus
Neurosurgery

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Neurosurgery and Neurology

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Associate Professor
Neurosurgery

Rich Everson, MD
Assistant Professor
Neurosurgery

Aria Fallah, MD, MSc
Assistant Professor
Neurosurgery

Itzhak Fried, MD, PhD
Professor
Neurosurgery

Langston Holly, MD
Professor
Neurosurgery

Won Kim, MD
Assistant Clinical Professor
Neurosurgery

Jean-Philippe Langevin, MD
Assistant Professor
Neurosurgery

Linda Liau, MD, PhD, MBA
Professor and Chair
Neurosurgery

Daniel Lu, MD
Associate Professor
Neurosurgery

Paul Vespa, MD
Professor
Neurosurgery and Neurology

Anthony Wang, MD
Assistant Professor
Neurosurgery

Isaac Yang, MD
Associate Professor
Neurosurgery
COURSE DESCRIPTION

The Department of Neurosurgery at the David Geffen School of Medicine at UCLA presents its second annual comprehensive update on emerging diagnostic and treatment modalities for diseases of the brain and spine drawing upon the department's world class expertise in each subspecialty. This course will feature sessions on intrinsic and extrinsic brain tumors, cerebrovascular disease, functional and stereotactic neurosurgery, spinal disease, as well as traumatic brain injury and neurocritical care. This year, the course will also feature a mini-symposium on recent advances in image-guided ablative surgery for tumors, epilepsy and movement disorders. Renowned faculty experts from UCLA neurosurgery will present novel treatment and management strategies to help healthcare professionals deliver the most advanced care to their patients. This two-day program will be delivered in topic-specific sessions, each followed by discussion and a question and answer break, to encourage active participation by the audience and discussion of challenging cases.

TARGET AUDIENCE

This course is targeted towards neurosurgeons (in practice and in training) medical oncologists, radiation oncologists, neurologists, allied health professionals, and neurosurgery, neurology and oncology residents and fellows.

COURSE OBJECTIVES

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

• Recommend the most up-to-date diagnostic, surgical, and minimally invasive advances in the evaluation and treatment of patients with brain and spinal pathology
• Identify and implement optimal patient-specific therapies for patients with brain tumors
• Select optimal treatment strategies for and recognize limitations of functional neurosurgical indications
• Compare the relative utility of distinct approaches for managing spinal disorders
• Review multidisciplinary approaches to intracranial disease in the pediatric population
• Differentiate the relative benefits of open, endovascular, and radiosurgical approaches to managing cerebrovascular disease
• Report a systematic approach to the multimodal management of brain trauma

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 12.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This CME activity meets the requirements, under California Assembly Bill 1195, continuing education for physicians.

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, policy of the Accreditation Council for Continuing Medical Education 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.

COURSE LOCATION

Loews Santa Monica Beach Hotel, 1700 Ocean Ave, Santa Monica, CA 90401
310-458-6700

Accommodations: There is a very limited number of hotel rooms available at a discounted rate of $379, first come, first served basis. The special rate is available from February 28-March 2, 2019. To book a room, please email Jasmin Hernandez at jhernandez@loewshotels.com. Please note that this is not a room block. No other rooms will be made available at the discounted rate once the limit has been reached.

Parking: Discounted valet day parking is $15.
## FRIDAY • MARCH 1 • 2019

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:45</td>
<td>Registration and Breakfast</td>
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<tr>
<td>8:45</td>
<td>Course Director’s Welcome</td>
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<tr>
<td></td>
<td>Nader Pouratian, MD, PhD and Luke Macyszyn, MD, MA</td>
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<tr>
<td>9:00</td>
<td>Brain Mapping for Glioma Surgery</td>
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<tr>
<td></td>
<td>Rich Everson, MD</td>
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<tr>
<td>9:20</td>
<td>Brain Metastases: Management and Challenging Cases</td>
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<td></td>
<td>Won Kim, MD</td>
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<tr>
<td>9:40</td>
<td>Immunotherapy and Clinical Trials for Brain Tumors</td>
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<tr>
<td></td>
<td>Linda Liau, MD, PhD, MBA</td>
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<tr>
<td>10:00</td>
<td>Discussion and Q&amp;A</td>
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<td>10:30</td>
<td>Break</td>
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### INTRINSIC BRAIN TUMORS

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>11:00</td>
<td>DBS: Indications and Limitations</td>
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<tr>
<td></td>
<td>Ausaf Bari, MD, PhD</td>
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<tr>
<td>11:20</td>
<td>Epilepsy: Mapping and Treating Brain Networks</td>
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<td></td>
<td>Itzhak Fried, MD, PhD</td>
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<tr>
<td>11:40</td>
<td>Neurosurgical Targets for Chronic Pain</td>
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<td>Jean-Philippe Langevin, MD</td>
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<tr>
<td>12:00</td>
<td>Facial Pain: A Treatment Matrix</td>
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<td></td>
<td>Won Kim, MD</td>
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<tr>
<td>12:20</td>
<td>Discussion and Q&amp;A</td>
</tr>
<tr>
<td>12:30</td>
<td>Lunch</td>
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</tbody>
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### FUNCTIONAL AND STEREOTACTIC NEUROSURGERY

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>13:30</td>
<td>Laser Ablation of Brain Tumors</td>
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<tr>
<td></td>
<td>Nader Pouratian, MD, PhD</td>
</tr>
<tr>
<td>13:50</td>
<td>Laser Ablation for Epilepsy</td>
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<td></td>
<td>Itzhak Fried, MD, PhD</td>
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<tr>
<td>14:10</td>
<td>MRI-guided Focused Ultrasound for Tremor and Beyond</td>
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<tr>
<td></td>
<td>Nader Pouratian, MD, PhD</td>
</tr>
<tr>
<td>14:30</td>
<td>Discussion and Q&amp;A</td>
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<tr>
<td>14:50</td>
<td>Break</td>
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**Register online with an American Express, Discover, MasterCard or Visa:**

- [www.cme.ucla.edu/courses](http://www.cme.ucla.edu/courses)
- [Register](http://www.cme.ucla.edu/courses)
- [Call 310-794-2624](tel:310-794-2624)

**REFUNDS:**

- [Los Angeles, CA 90024](http://www.cme.ucla.edu/courses)
- [10920 Wilshire Blvd., Suite 1060](http://www.cme.ucla.edu/courses)
- [UCLA Neurosurgery Update](http://www.cme.ucla.edu/courses)
- [Course Enrollment Options](http://www.cme.ucla.edu/courses)

**Course Director’s Greeting**

- [Aria Fallah, MD, Msc](http://www.cme.ucla.edu/courses)
- [Ulrich Batzdorf, MD](http://www.cme.ucla.edu/courses)
- [Aria Fallah, MD, Msc](http://www.cme.ucla.edu/courses)
- [2:00](http://www.cme.ucla.edu/courses)

**Course Adjourns**

- [Discussion and Q&A](http://www.cme.ucla.edu/courses)
- [Discussion and Q&A](http://www.cme.ucla.edu/courses)
- [Discussion and Q&A](http://www.cme.ucla.edu/courses)
- [Discussion and Q&A](http://www.cme.ucla.edu/courses)

**Course Number:**

- [M189-31](http://www.cme.ucla.edu/courses)

**Tuition:**

- $250 (Residents/Fellows)
- $300 (Allied Health Professionals)
- $50 (Physicians)

**Fee:**

- $150 (Residents/Fellows)
- $100 (Allied Health Professionals)
- $50 (Physicians)

**Register by**

- [February 1](http://www.cme.ucla.edu/courses)
- [February 1](http://www.cme.ucla.edu/courses)

**Cancellations must be received in writing by February 1, 2019,** 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 cancelled, discontinued, or rescheduled by the Office of CME, a full refund will be provided.
SPINAL SURGERY

3:10 Minimally Invasive Spine Surgery – Where Have We Come From and Where Are We Going?  
Kevin Foley, MD  

GUEST LECTURE

3:40 Minimally Invasive Intradural Spine Surgery  
Luke Macyszyn, MD, MA

4:00 Thoracic Myelopathy: An Underappreciated Cause of Neurological Dysfunction  
Langston Holly, MD

4:20 Advanced Spinal Cord Stimulation Techniques for Treatment of Degenerative Spine Disease  
Daniel Lu, MD

4:40 Anterior Reconstruction Techniques in Spinal Deformity  
Luke Macyszyn, MD, MA

5:00 Discussion and Q&A

5:30 Adjourn

5:30-7:00 Reception

SATURDAY • MARCH 2 • 2019

7:00 Breakfast

7:50 Course Director’s Greeting  
Nader Pouratian, MD, PhD and Luke Macyszyn, MD, MA

NEUROTRAUMA AND NEUROCRITICAL CARE

8:00 Controversies in Surgery for Traumatic Brain Injury: From Subdural to Craniectomy  
Rich Everson, MD

8:20 Intracranial Monitoring in Traumatic Coma: Emerging Targets for Therapy  
Manuel M. Buitrago Blanco, MD, PhD

8:40 Imaging in TBI: What it Means and How it Changes Management  
Paul Vespa, MD

9:00 Discussion and Q&A

9:30 Break

10:00 The Evolution of Image Guided Spine Surgery  
Kevin Foley, MD  

GUEST LECTURE
CEREBROVASCULAR SURGERY

10:30  Updates on Mechanical Thrombectomy for Stroke
       Geoffrey Colby, MD, PhD

10:50  Advanced Endovascular Therapy for Brain Aneurysms
       Geoffrey Colby, MD, PhD

11:10  Current Management Strategies for Vascular Malformations
       Anthony Wang, MD

11:30  Modern Treatment Paradigms for Moyamoya and Arterio-Occlusive Disease
       Anthony Wang, MD

11:50  Discussion and Q&A

12:00  Lunch

EXTRINSIC BRAIN TUMORS

1:00   Latest Updates for Meningiomas
       Isaac Yang, MD

1:20   Pearls and Pitfalls of Endoscopic Transsphenoidal Surgery
       Marvin Bergsneider, MD

1:40   Discussion and Q&A

PEDIATRIC NEUROSURGERY

2:00   Optimizing Treatment Selection in Infantile Hydrocephalus
       Aria Fallah, MD, Msc

2:20   Treatment Strategies for Chiari Malformation
       Ulrich Batzdorf, MD

2:40   Advances in Pediatric Epilepsy Surgery
       Aria Fallah, MD, Msc

3:00   Discussion and Q&A

3:30   Conference Adjourns
Office of Continuing Medical Education
David Geffen School of Medicine at UCLA
405 Hilgard Avenue
Box 956938
Los Angeles, CA 90095-6938