

**27TH ANNUAL
BRAIN TUMOR UPDATE
AND
16TH ANNUAL SYMPOSIUM ON
BRAIN METASTASES
AND SPINE TUMORS**

7-8
NOVEMBER
2026

Live Conference

Saturday - Sunday, November 7-8, 2026

Intercontinental Los Angeles Downtown

Accredited by: USC Office of Continuing Medical Education

TO REGISTER



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This symposium is supported by an endowed lectureship known as
The Henry L. Jaffe, MD Annual Oration in Therapeutic Radiology.

PROGRAM AGENDA
SATURDAY, NOVEMBER 7, 2026

7:00 AM

Registration and Breakfast

7:50 AM

Welcome *Eric L. Chang, MD and
Gabriel Zada, MD, MS*

**SESSION I: SPINAL TUMORS
AND METASTASES**

Moderator: *Patrick Hsieh, MD*

8:00 AM

**Neuro-Imaging of Spine Tumors: A Primer
for the Uninitiated**

Nasim Sheikh-Bahaei, MD

8:15 AM

**Key Hole Minimal Invasive Surgery for
Spine Tumors: When Should We Do It?**

John Liu, MD

8:30 AM

**How to Apply Emerging Technology
in the Surgical Management of Spinal
Tumors**

Ajit Krishnaney, MD

8:45 AM

**Rad Onc Perspective on Radiation
Planning and Delivery in Setting of
Carbon Fiber for the Spine Tumors**

Joshua Palmer, MD

9:00 AM

**Surgical Management of Spinal
Metastases: Complication Avoidance**

Patrick Hsieh, MD

9:15 AM

**Spine Radiosurgery for Spine Metastases:
How to Select Suitable Patients**

Lilyana Angelov, MD

9:30 AM

Faculty Panel – Case Discussion

9:50 AM

Break

**SESSION II: TECHNOLOGY AND
BRAIN TUMOR MANAGEMENT**

Moderator: *David Peereboom, MD*

10:10 AM

**Frame and Frameless Cobolt-60
Radiosurgery CBCT and Fractionation:
Unprecedented Flexibility?**

Dheerendra Prasad, MD

10:25 AM

**Advances in Neuroradiology: How Do
We Assess Treatment Related Imaging
Changes in 2026?**

Douglas Martin, MD, PhD

10:40 AM

**Reirradiation of Same Brain Metastasis
Using Radiosurgery**

Steve Braunstein, MD, PhD

10:55 AM

Protons and BNCT *John Suh, MD*

11:10 AM

Panel Discussion

11:30 AM

Lunch

**SESSION III: BRAIN
METASTASES**

Moderators: *Eric L. Chang, MD and
John Suh, MD*

12:35 PM

**Translational Biology for Brain
Metastases: What Does the Future
Look Like?**

Diganta Das, PhD

12:50 PM

**Role of AI in Diagnostics: Augmenting
or Replacing the Radiologist?**

Douglas Martin, MD, PhD

1:05 PM

**Immunotherapy for Brain Metastases:
Does Timing Matter?**

David Peereboom, MD

1:20 PM

**Targeted Therapy: What Driver
Mutations are Actionable?**

Mina Lobbous, MD, MSPH

1:35 PM

**LITT in Management of Brain
Metastases: What are Current
Indications?**

Gene Barnett, MD, MBA

1:50 PM

**Advances in Surgery for Brain
Metastases: Intralesional, En Bloc, or
Parafascicular?**

Frank Attenello, MD, MS

2:05 PM

Break

2:25 PM

**Preop Radiosurgery for Brain Mets:
Where Does the Data Stand Today?**

Aram Modrek, MD, PhD

2:40 PM

**Radiosurgery for Multiple Brain
Metastases: What's the Upper Limit?**

Eric L. Chang, MD

2:55 PM

**Collagen Based Cs-131 Tiles vs. Postop
Radiosurgery for Brain Metastases**

Jason Ye, MD vs. Samuel Chao, MD

3:10 PM

Panel Discussion

3:25 PM

Closing Remarks

3:30 PM **Adjourn**

PROGRAM AGENDA
SUNDAY, NOVEMBER 8, 2026

7:15 AM

Registration and Breakfast

7:55 AM

Welcome Back *Gabriel Zada, MD, MS*

SESSION IV: PITUITARY

Moderators: *Gabriel Zada, MD, MS, John Carmichael, MD, and Pablo Recinos, MD*

8:00 AM

Advances in the Diagnostics and Treatment of Cushing's Disease

Bernice Omotosho, MD, MHSc

8:15 AM

Advances in Diagnostics and Treatment of Acromegaly *Divya Yogi-Morren, MD*

8:30 AM

Modern Endoscopic Surgery for Pituitary Adenomas *Gabriel Zada, MD, MS*

8:45 AM

From the Endoscope to the Exoscope: Emerging Platforms for Parasellar Skull Base Surgery *Pablo Recinos, MD*

9:00 AM

Management of Prolactinomas *John Carmichael, MD*

9:15 AM

Stereotactic Radiosurgery for Pituitary Adenomas *John Suh, MD*

9:30 AM

Updated Pathology of PitNets *Kyle Hurth, MD, PhD*

9:45 AM

Break

10:10 AM

Medical and Chemotherapeutic Options for Refractory PitNets *Frances Chow, MD, MS*

10:25 AM

Visual Assessment of Patients with Pituitary Lesions *Jeffrey Gluckstein, MD*

10:40 AM

The Sella: Complex Case Presentations

*John Carmichael, MD
Frances Chow, MD, MS
Kyle Hurth, MD, PhD
Bernice Omotosho, MD, MHSc
Pablo Recinos, MD
John Suh, MD
Divya Yogi-Morren, MD
Gabriel Zada, MD, MS*

SESSION V: SEX, HORMONES AND BRAIN TUMORS

Moderator: *Gabriel Zada, MD, MS*

11:00 AM

Sex Differences in Gliomas *Justin Lathia, PhD*

11:20 AM

Updated Pathology of Meningiomas *Kyle Hurth, MD, PhD*

11:40 AM

Sex, Hormones and Meningiomas *Mark Malkin, MD*

12:00 PM

Lunch

SESSION VI: GLIOMAS

Moderator: *David Peereboom, MD*

1:00 PM

Perillyl Alcohol Clinical Trials for Gliomas *Thomas Chen, MD, PhD*

1:15 PM

Tumor Treating Fields and Immunotherapy for Glioblastoma *Frances Chow, MD, MS*

1:30 PM

IDH Inhibitors for Gliomas: Mechanisms and Pathways *Frances Chow, MD, MS*

1:45 PM

Next Generation Sequencing and Methylation Profiling for Gliomas *Timothy Chan, MD, PhD*

2:00 PM

Diffuse Midline Gliomas *Alyssa Lucas, MD*

2:15 PM

Panel Discussion

2:30 PM

Concluding Remarks *Eric L. Chang, MD and Gabriel Zada, MD, MS*

2:45 PM **Adjournment**

This symposium is supported by an endowed lectureship known as
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Annual Oration in
Therapeutic Radiology**

SYMPOSIUM DIRECTORS - Keck School of Medicine of USC



**Eric L. Chang, MD, FACP,
FASTRO, FARS**

Professor and Chair,
Department of Radiation
Oncology



**Gabriel Zada, MD, MS,
FAANS, FACS**

Professor of Neurological
Surgery, Otolaryngology
and Internal Medicine;
Director, USC Brain Tumor

Center, Department of Neurological Surgery

SYMPOSIUM DIRECTORS - Cleveland Clinic



**Gene Barnett, MD, MBA,
FAANS, FACS**

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Burkhardt Brain Tumor
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Neurological Surgery



Ajit Krishnaney, MD

Professor and Vice
Chair, Department of
Neurosurgery; Director,
Spine Tumor Surgery
Program Center for Spine
Health



David Peereboom, MD

Associate Director, Clinical
Research, Rose Ella
Burkhardt Brain Tumor
and Neuro-Oncology
Center



Pablo Recinos, MD

Section Head, Skull
Base Surgery, Rose Ella
Burkhardt Brain Tumor
and Neuro-Oncology
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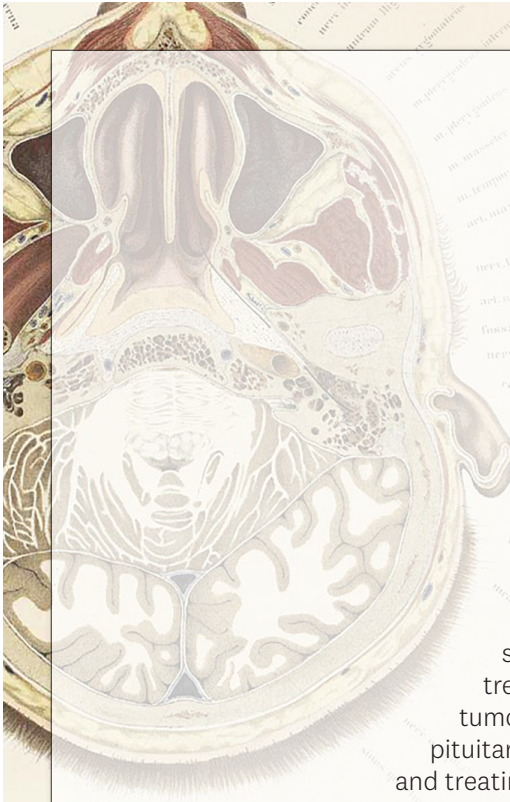
**John Suh, MD, FACP,
FASTRO**

Chairman, Department
of Radiation Oncology,
Rose Ella Burkhardt
Brain Tumor and Neuro-
Oncology Center

SYMPOSIUM FACULTY

- **Lilyana Angelov, MD**
Cleveland Clinic
- **Frank Attenello, MD, MS**
Keck School of Medicine of USC
- **Steve Braunstein, MD, PhD**
University of California, San Francisco
- **John Carmichael, MD**
Keck School of Medicine of USC
- **Timothy Chan, MD, PhD**
Cleveland Clinic
- **Samuel Chao, MD**
Cleveland Clinic
- **Thomas Chen, MD, PhD**
Keck School of Medicine of USC
- **Frances Chow, MD, MS**
University of California, Irvine
- **Diganta Das, PhD**
Keck School of Medicine of USC
- **Jeffrey Gluckstein, MD**
Keck School of Medicine of USC
- **Patrick Hsieh, MD**
Keck School of Medicine of USC
- **Kyle Hurth, MD, PhD**
Keck School of Medicine of USC
- **Justin Lathia, PhD**
Cleveland Clinic
- **John Liu, MD**
Keck School of Medicine of USC
- **Mina Lobbous, MD, MSPH**
Cleveland Clinic
- **Alyssa Lucas, MD**
Cleveland Clinic
- **Mark Malkin, MD, FRCPC, FAAN**
Cleveland Clinic
- **Douglas Martin, MD, PhD**
Cleveland Clinic
- **Aram Modrek, MD, PhD**
Keck School of Medicine of USC
- **Bernice Omotosho, MD, MHSc**
Keck School of Medicine of USC
- **Joshua Palmer, MD**
The Ohio State University
- **Dheerendra Prasad, MD, MCh**
Roswell Park Comprehensive
Cancer Center
- **Nasim Sheikh-Bahaei, MD**
Keck School of Medicine of USC
- **Jason Ye, MD**
Keck School of Medicine of USC
- **Divya Yogi-Morren, MD**
Cleveland Clinic

Medical illustrations by Wilhelm Braune, 1831-1892,
*Topographisch-anatomischer Atlas, nach Durchschnitten
an gefrorenen Cadavern.* Leipzig, Verlag von Veit & Comp.,
1867-1872. Courtesy of the U.S. National Library of Medicine,
National Institutes of Health, Bethesda, Maryland.



COURSE DESCRIPTION

The 27th Annual Brain Tumor Update and the 16th Annual Symposium on Brain Metastases and Spine Tumors

is co-provided by the Keck School of Medicine of the University of Southern California and Cleveland Clinic.

This advanced multidisciplinary meeting is led by expert faculty from Cleveland Clinic and Keck School of Medicine of USC, with additional internationally recognized guest faculty.

This symposium is designed to improve competency to assess and treat patients with brain tumors and tumors of the spine, especially as it relates to comparing treatments for brain metastases and spine tumors, evaluating new technologies, treating pituitary tumors, meningiomas, and assessing and treating gliomas, with the overall goal of improving outcomes in these patient populations.

There will be a sub-focus session IV dedicated to multimodal management of pituitary tumors.

LEARNING OBJECTIVES

By the end of the course, participants will be able to:

- Summarize innovations in neuroimaging, advances in surgical management, radiotherapeutic management, and medical therapy, and palliative care for bone tumors of the spine.
- Critically appraise the issues for treatments for brain metastases, including advances in radiosurgery and other surgical treatments, targeted therapy, and the possibility of immunotherapy.
- Know the technological innovations in neuroimaging, radiation medicine, and surgery for brain tumor management and define their role in clinical practice.
- Integrate the contemporary management of meningiomas, including the roles of surgery, radiation, and adjuvant therapy and their relation to outcomes.
- Use contemporary management of pituitary tumors and its subtypes, including the roles of surgery, radiation, and adjuvant therapy and their relation to outcomes.
- Know the advances in molecular diagnostics, epigenetics, cellular therapy, and immunotherapy of gliomas.

TARGET AUDIENCE

Neurosurgeons, Radiation Oncologists, Medical Oncologists, Neuro-oncologists, Neurologists, Endocrinologists, Neuro-radiologists, Neuropathologists, Physician Assistants, Nurse Practitioners, Nurses and allied healthcare professionals who work with patients with tumors.

ACCREDITATION STATEMENT

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

CREDIT DESIGNATION

The Keck School of Medicine of the University of Southern California designates this live activity for a maximum of 11 *AMA PRA Category 1 Credits™*. **Physicians** should claim only the credits commensurate with the extent of their participation in the activity.

The following may apply *AMA PRA Category 1 Credit(s)™* for license renewal: **Registered Nurses** may report up to 11 credit hour(s) toward the CME requirements for license renewal by their state Board of Registered Nurses (BRN). CME may be noted on the license renewal application in lieu of a BRN provider number.

Physician Assistants: The National Commission on Certification of Physician Assistants states that *AMA PRA Category 1 Credits™* accredited courses are acceptable CME requirements for recertification.

HOTEL INFORMATION

A room block will be available at the Intercontinental Los Angeles Downtown:

Intercontinental Los Angeles Downtown
900 Wilshire Boulevard, Los Angeles, CA 90017

Room rate: \$299. **Cut-off date:** Must book hotel room to secure these rates before October 23, 2026. **Reserve a room by scanning the QR Code.**

TO RESERVE ROOM



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CANCELLATION POLICY

Registration cancellations must be emailed to the USC Office of CME by November 3, 2026, 12:00 pm PST for a refund. A \$50 cancellation fee will be applied for requests received after November 3, 2026.

In the event of course cancellation by conference organizers, all registration fees will be fully refunded. USC will not refund any travel costs incurred.



REGISTRATION

27th Annual Brain Tumor Update and 16th Annual Symposium on Brain Metastases and Spine Tumors - November 7 – 8, 2026

Early-bird price for live registration ends November 3, 2026 at 12:00 pm, PST.
To register after November 3, register on-site on November 7 at the venue.

Tuition:	Early-Bird	After November 3
MD/DO	☐ \$249	☐ \$299
NP/PA/APP or RN/AH or PT	☐ \$199	☐ \$249
Fellow/Resident/Student	☐ \$99	☐ \$99

TO REGISTER



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Register: **Mail:** 1540 Alcazar Street, CHP 223, Los Angeles, CA 90033
Mail-in registration must be postmarked by November 3, 2026.
Online: keckusc.cloud-cme.com/brainmets2026 **Visa or Mastercard only**
Phone: (323) 442-2555 **AMEX, Mastercard or Visa**
Email: usccme@usc.edu
On-site: Available November 7, 2026, 7:00 am, Intercontinental Los Angeles Downtown.

NAME _____ DEGREE _____
MEDICAL LICENSE NUMBER _____ TELEPHONE _____
ADDRESS _____
CITY _____ STATE _____ ZIP _____
SPECIALTY _____
EMAIL ADDRESS* _____
INSTITUTIONAL AFFILIATION _____

SPECIAL DIETARY OR PHYSICAL NEEDS _____

We strive to accomodate dietary recommendations. Please note that not all food items may meet special require-
ments. Food items will be labeled for your convenience. ***Registration confirmation and event reminder will be
emailed.**

Method of Payment: No cash payment accepted.

- ☐ **Check** (Check payable to USC. Check payment must be postmarked by November 3, 2026)
☐ **Credit Card** (American Express by Phone/Mail only, Mastercard or Visa online)

CREDIT CARD NUMBER _____

EXPIRATION DATE _____ SECURITY CODE _____

AUTHORIZED SIGNER _____ AMOUNT \$ _____

COURSES ARE SUBJECT TO CANCELLATION.



Keck School of Medicine of **USC**

Office of Continuing Medical Education

1540 Alcazar Street, CHP 223, Los Angeles, CA 90033



**27th Annual Brain Tumor Update and
16th Annual Symposium on Brain Metastases
and Spine Tumors**

November 7 – 8, 2026

Live Conference

Intercontinental Hotel - Downtown Los Angeles

900 Wilshire Blvd, Los Angeles, California, 90017

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