



Penn Medicine

Continuing Medical and Interprofessional Education

FRIDAY, JUNE 8, 2018

7:00 AM- 3:15 PM

Law Auditorium | Jordan Medical Education Center
Perelman Center for Advanced Medicine
3400 Civic Center Boulevard | Philadelphia, PA 19104

Penn Medicine's Abramson Cancer Center
and The Penn Brain Tumor Center PRESENT

NEURO-ONCOLOGY SYMPOSIUM BRAIN TUMORS 2018

Master Class In Brain Tumor Treatment – Best Practices

A CME/CNE-Certified Conference

REGISTER ONLINE AT

PennMedicine.org/Abramson/BrainCME



NEURO-ONCOLOGY SYMPOSIUM

BRAIN TUMORS 2018:

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LAW AUDITORIUM JORDAN MEDICAL EDUCATION CENTER

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3400 Civic Center Boulevard | Philadelphia, PA 19104

DIRECTIONS AND PARKING

The Law Auditorium is located in the Jordan Educational Center on the 5th Floor of the Perelman Center for Advanced Medicine South Pavillion.

For public transportation, directions, and parking information, go to PennMedicine.org/Perelman/visitor_info.

Perelman Center is conveniently reached by several public transportation routes.

- Amtrak, 30th Street Station
- Septa Regional Rail (University City Station)
- LUCY - Loop Through University City
- NJ PATCO Trains

Parking is available at the 3600 Civic Center Boulevard Parking Garage. Parking fees are not covered by this course.

Conference materials will be available online.

Please bring your electronic device to view presentations in real time.

OVERVIEW

The purpose of this educational activity is to provide a review of new treatment options in neuro-oncology, including surgical techniques and intraoperative imaging that have improved patient outcomes. Sessions will feature the latest advances in state-of-the-art care for practicing clinicians treating patients with brain tumors. Cutting-edge topics in precision medicine, including genetic, translational, and clinical research will also be featured. Each section will conclude with an audience interactive panel discussion with question and answer session.

OBJECTIVES

Upon completion of this course, participants should be able to:

- Review the new WHO classification of brain tumors and how molecular profiling affects diagnosis, MRI interpretation, prognosis and therapy of patients with gliomas
- Describe advances in the surgical treatment of brain tumors including the use of fiber tracking (DTI), awake craniotomy, brain mapping, laser thermocoagulation, and fluorescence IGS (image-guided surgery)
- Explain the role of immune system to defend against CNS malignancy including the new class of checkpoint inhibitors and the potential use of CAR-T cell therapy
- Review the benefits and application of proton therapy for low-grade and malignant gliomas
- Describe the scientific rationale, practical application, and survival benefit of electric field therapy for malignant brain tumors
- Explain the rationale and potential for viral therapies for malignant gliomas
- Describe recent advances in anti-angiogenic therapy in the treatment of gliomas

At the completion of this course patients and families will be able to:

- Describe the latest advances in brain cancer treatment
- Demonstrate familiarity with the terminology and technical aspects of brain cancer care
- Demonstrate patient-active behavior in working with the healthcare team to make ongoing treatment decisions

WHO SHOULD ATTEND

This symposium is designed for neurosurgeons, neuro-oncologists, neurologists, radiologists, medical oncologists, radiation oncologists, primary care physicians, oncology nurses, and other healthcare professionals involved in the treatment of patients with brain tumors. Additionally, patients and their caregivers, family members, advocates and members of the public who may benefit from understanding current innovative approaches to brain tumor care are invited.

REGISTRATION

Industry and Non-Penn Physicians	\$225
Non-Penn residents, fellows, nurses, and other healthcare professionals.....	\$150
Penn Faculty, staff, residents, fellows, and nurses	\$100
Penn Students.....	\$0
Patients, family members, advocates, and general public	\$0

Registration fee includes meals and access to course materials. In addition, pre-registered attendees will receive a copy of the book *Prescription for the Future: The Twelve Transformational Practices of Highly Effective Medical Organizations* by Ezekiel Emanuel. Also, physicians, residents, fellows and nurses will receive a copy of *Glioblastoma 1E* by Dr. Steven Brem.

For additional information please contact Barbara Lopez at lopezb@penmedicine.upenn.edu.

Register online at PennMedicine.org/Abramson/BrainCME

ACCREDITATION AND DESIGNATION OF CREDIT

ACCREDITATION

In support of improving patient care, Penn Medicine is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.



JOINTLY ACCREDITED PROVIDER™
INTERPROFESSIONAL CONTINUING EDUCATION

DESIGNATION OF CREDIT

PHYSICIANS: Penn Medicine designates this live activity for a maximum of 6.25 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

NURSES: The program will award 6.25 contact hours.

PHYSICIAN ASSISTANTS: AAPA accepts certificates of participation for educational activities certified for *AMA PRA Category 1 Credits™* from organizations accredited by ACCME or a recognized state medical society. PAs may receive a maximum of 6.25 Category 1 credits for completing this activity.

DISCLOSURES

Penn Medicine, Office of Continuing Medical and Interprofessional Education, adheres to the ACCME Standards for Commercial Support. Faculty and planner's disclosure information will be made available in the conference materials and syllabus. Faculty members are also expected to disclose to participants any discussion of off-label and / or investigational use of pharmaceutical products or devices within their presentations.

CANCELLATION POLICY

The University reserves the right to cancel or postpone any conference due to unforeseen circumstances. In the event of cancellation or postponement, the University will refund registration fees but is not responsible for any related costs or expenses to participants, including cancellation fees assessed by hotels, airlines and travel agencies.

In order to process refunds for conference withdrawals, we must receive cancellation in writing no later than 30 days prior to event.

SERVICES FOR THE DISABLED

If special arrangements are required for an individual with a disability to attend this meeting, please contact lopezb@penmedicine.upenn.edu, no later than 30 days prior to event.

NONDISCRIMINATION STATEMENT

The University of Pennsylvania values diversity and seeks talented students, faculty and staff from diverse backgrounds. The University of Pennsylvania does not discriminate on the basis of race, color, sex, sexual orientation, gender identity, religion, creed, national or ethnic origin, citizenship status, age, disability, veteran status or any other legally protected class status in the administration of its admissions, financial aid, educational or athletic programs, or other University administered programs or in its employment practices. Questions or complaints regarding this policy should be directed to the Executive Director of the Office of Affirmative Action and Equal Opportunity Programs, Sansom Place East, 3600 Chestnut Street, Suite 228, Philadelphia, PA 19104-6106; (215) 898-6993 (Voice) or (215) 898-7803 (TDD).

AGENDA

7:00 am Registration and Continental Breakfast

7:30 am Welcome and Introduction

Lawrence N. Shulman, MD
M. Sean Grady, MD

SPECIAL PRESENTATION

7:40 am A Prescription for the Future of American Healthcare

Ezekiel J. Emmanuel, MD

SCIENTIFIC SESSION 1 NEW CONCEPTS AND INNOVATIVE TECHNOLOGIES

MODERATOR: Arati Desai, MD

8:10 am The New WHO Classification and the Role of Integrated Molecular Profiling in the Diagnosis of Malignant Gliomas

Stefan Prokop, MD

8:25 am Clinically Useful Next Generation Sequencing in Glioblastoma

Jennifer Morrisette, PhD

8:40 am Advanced Neuroimaging of Brain Tumors: Radiogenomics, Predictive Biomarkers, and Response Assessment

Suyash Mohan, MD, PDCC

9:00 am Anatomic and Functional Mapping of Key Fiber Tracts to Optimize Outcomes

Steven Brem, MD

9:20 am Laser Thermocoagulation: A New Tool for Epilepsy and Brain Tumor Surgery

Timothy H. Lucas, MD, PhD

9:35 am Seeing Beyond the Visible: Fluorescent Imaging of Brain Tumors

John Y.K. Lee, MD

9:50 am Immunotherapy for Brain Tumors- Using CAR T-Cell Platform for Glioblastoma

Donald O'Rourke, MD

10:10 am Break



SCIENTIFIC SESSION 2

PROGRESS IN THE TREATMENT OF MALIGNANT BRAIN TUMORS

MODERATOR: Robert A. Lustig, MD, FACR

- 10:30 am** **The Intersection of Neurosurgery and Oncology: Tumor Margins using DESI-MS, the Neurosurgical Atlas, and Enhancing Surgical Outcomes**
Aaron Cohen-Gadol, MD
- 11:00 am** **From Temozolomide to Tumor Treating Fields – Making Progress in the Management of Malignant Gliomas**
Roger Stupp, MD
- 11:30 am** **Medical and Symptom Management of Patients with Brain Tumors**
Amy A. Pruitt, MD
- 11:45 am** **Seizure Management for Brain Tumor Survivors: Current Concepts**
Kathryn A. Davis, MD
- 12:00 pm** **Lunch**

SCIENTIFIC SESSION 3

PRECISION MEDICINE, RADIATION THERAPY, AND SURVIVORSHIP OF PATIENTS WITH BRAIN TUMORS

MODERATOR: Suyash Mohan, MD

- 1:00 pm** **Anti-Angiogenic Therapy and Current Clinical Trials**
Arati Desai, MD
- 1:30 pm** **Immunotherapy and Circulating Tumor DNA in Glioblastoma**
Stephen Bagley, MD
- 2:15 pm** **Photons and Protons: Customizing Precision Radiation Therapy for Patients with Malignant Brain Tumors**
Goldie A. Kurtz, MD
- 2:35 pm** **Targeted Therapy for Brain Metastases (Melanoma, Breast and Lung Cancer): Principles and Progress**
Tara C. Mitchell, MD
- 2:55 pm** **Stories of Patient Survivors: Navigating the Health Care System, Finding Information, Clinical Trials, Innovation, and Hope**
Arbena Merolli, MSW
Eleanor Miller, MSN, RN, OCN, CBCN
Karen Albright, MSN, CRNP
- 3:15 pm** **Summary and Meeting Adjournment**
Steven Brem, MD | Arati Desai, MD | Robert A. Lustig, MD, FACR | Donald M. O'Rourke, MD

SPEAKERS

ACTIVITY DIRECTOR



Steven Brem, MD
Professor of Neurosurgery
Chief of Surgical Neuro-Oncology
Co-Director of Penn Brain Tumor Center

ACTIVITY CO-DIRECTORS



Arati Desai, MD
Assistant Professor of Medicine
(Hematology Oncology)
Co-Director of Penn Brain Tumor Center



Robert A. Lustig, MD, FACP
Professor of Radiation Oncology
Chief of Clinical Operations in the
Department of Radiation Oncology



Suyash Mohan, MD
Assistant Professor of Radiology
(Neurosurgery)

GUEST SPEAKERS

Aaron A. Cohen-Gadol, MD
Associate Professor of Neurological Surgery
Indiana University School of Medicine

Roger Stupp, MD
Chief of Neuro-Oncology in the Department of Neurology
Professor of Neurological Surgery, Medicine (Hematology and
Oncology) and Neurology (Neuro-oncology)
Northwestern University Feinberg School of Medicine

PENN MEDICINE FACULTY

Karen Albright, MSN, CRNP
Nurse Practitioner of Neuro-Oncology

Stephen Bagley, MD
Instructor of Medicine (Hematology/Oncology)

Kathryn A. Davis, MD
Assistant Professor of Neurology

Ezekiel J. Emanuel, MD
Vice Provost for Global Initiatives, the Diane v.S. Levy and Robert
M. Levy University Professor, and Chair of the Department of
Medical Ethics and Health Policy at the University of Pennsylvania

M. Sean Grady, MD
Charles Harrison Frazier Professor of Neurosurgery
Chairman, Neurosurgery

Goldie A. Kurtz, MD
Assistant Professor of Clinical Radiation Oncology

John Y.K. Lee, MD
Associate Professor of Neurosurgery
Medical Director of Gamma Knife Center

Timothy H. Lucas, MD, PhD
Assistant Professor of Neurosurgery
Co-Director of Penn Center for Neuro-Engineering
and Therapeutics

Arbena Merolli, MSW
Clinical Social Worker
Manager - Neurosurgery Patient Affairs

Eleanor Miller, MSN, RN, OCN, CBCN
Oncology Nurse Navigator

Tara C. Mitchell, MD
Assistant Professor of Medicine (Hematology/Oncology)

Jennifer Morrissette, PhD
Associate Professor of Clinical Pathology & Laboratory Medicine
Scientific Director, Clinical Cancer Cytogenetics

Donald M. O'Rourke, MD
Associate Professor of Neurosurgery

Stefan Prokop, MD
Neuropathology Fellow, Pathology & Laboratory Medicine

Amy A. Pruitt, MD
Professor of Neurology

Lawrence N. Shulman, MD
Professor of Medicine (Hematology/Oncology)
Deputy Director Clinical Services, Abramson Cancer Center

SPECIAL PRESENTATIONS BY



Aaron Cohen-Gadol, MD, MSc, MBA

Aaron Cohen-Gadol is the President and the founder of The Neurosurgical Atlas. He is a professor at Indiana University Department of Neurosurgery and Goodman Campbell Brain and Spine. He is also the director of neurosurgical oncology and its fellowship, and co-director of the Neurological Tumors Signature Center at the Indiana University Simon Cancer Center. His areas of interest include surgical treatment of complex intracranial tumors and vascular lesions. His clinical research interests include neurosurgical operative anatomy, innovative operative approaches to deep lesions, and intraoperative fluorescence/mass spectroscopy. His basic science research is focused on novel drug therapies for glioblastoma.



Ezekiel J. Emanuel, MD

Ezekiel J. Emanuel is the Vice Provost for Global Initiatives, the Diane v.S. Levy and Robert M. Levy University Professor, and Chair of the Department of Medical Ethics and Health Policy at the University of Pennsylvania. He is also a Senior Fellow at the Center for American Progress. Dr. Emanuel was the founding chair of the Department of Bioethics at the National Institutes of Health and held that position until August of 2011. Until January 2011, he served as a Special Advisor on Health Policy to the Director of the Office of Management and Budget and National Economic Council. He is a breast oncologist and author.



Roger Stupp, MD

Roger Stupp holds an appointment as Division Chief of Neuro-Oncology and Co-Director of the Lou and Jean Malnati Brain Tumor Institute and Associate Director for Strategic Initiatives of the Northwestern University Robert H. Lurie Comprehensive Cancer Center. He is dedicated to translational cancer research, scientific cooperation and believes in the importance of well-designed clinical trials conducted within academic cooperative groups. Dr. Stupp has been a member of the European Organization for Research and Treatment of Cancer (EORTC) since 1994, and serves as a member of the Board of Directors and Executive Committee since 2006, as their President from 2012 - 2017. Dr. Stupp's research focuses on early drug development, the combination of chemo- and radiotherapy, multidisciplinary cancer management, namely in the areas of lung cancer and brain tumors. Roger Stupp is best known for his contributions in landmark trials establishing temozolomide and, most recently tumor treating fields as the standard of care for glioblastoma patients.



Penn Medicine

Abramson Cancer Center

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NCI Comprehensive
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