

NEURO-ONCOLOGY BRAIN TUMORS SYMPOSIUM 2020

A CME/CNE-accredited Conference

FRIDAY, OCTOBER 30, 2020 | 7:00 am - 4:00 pm

Agenda

- 7:00 am Log-in to Virtual Conference Visit Virtual Exhibit Hall
- 7:30 am Educational Meeting Begins Welcome and Introductions Steven Brem, MD – Chief, Neurosurgical Oncology M. Sean Grady, MD – Director, Neuroscience Service Line Daniel Yoshor, MD – Chairman, Neurosurgery Lawrence N. Shulman, MD – Deputy Director Abramson Cancer Center

SPECIAL PRESENTATION

7:40 am From Icarus to Aequanimitas, Revisited Joseph C. Maroon, MD, FACS – Professor of Neurosurgery Former President of the Congress of Neurological Surgeons Author of the book, Square One: A Simple Guide to a Balanced Life

SCIENTIFIC SESSION 1:

New Concepts And Innovative Technologies MODERATOR: Arati Desai, MD

8:10 am	The 2016 WHO Classification and the Role of Integrated Molecular Profiling in the Diagnosis of Malignant Gliomas		
	MacLean Nasrallah, MD, PhD – Pathology & Laboratory Medicine		
8:30 am	Clinically Useful Next Generation Sequencing in Glioblastoma		
	Jennifer JD Morrissette, PhD – Pathology & Laboratory Medicine		
8:40 am	Advanced Neuroimaging of Brain Tumors:		
	Radiogenomics, predictive biomarkers, and response assessment		
	Suyash Mohan, MD, PDCC – Radiology		
9:00 am	Overview of PET Imaging for Primary and Secondary Brain Tumors		
	Seyed Ali Nabavizadeh, MD – Radiology		



NEURO-ONCOLOGY BRAIN TUMORS SYMPOSIUM 2020

9:20 am Seeing Beyond the Visible: Fluorescent imaging of brain tumors John Y. K. Lee, MD, MSCE – Neurosurgery

- 9:50 am Immunotherapy for Brain Tumors Advances in CAR T-Cell Therapy for Glioblastoma Donald M. O'Rourke, MD – Neurosurgery
- 10:10 am Break/Visit Virtual Exhibits and Experts

SCIENTIFIC SESSION 2:

Progress In the Treatment of Malignant Brain Tumors MODERATOR: <u>Robert A. Lustig, MD, FACR</u>

- **10:30 am** Advances in Brain Mapping of Brain Tumors <u>Alexandra Golby, MD</u> – Neurosurgery
- **11:00 am** Advances in the Treatment of Gliomas Susan Chang, MD – Neuro-Oncology
- 11:30 am
 Medical and Symptom Management of Patients with Brain Tumors

 Amy A. Pruitt, MD Neurology
- 11:45 am
 Seizure Management for Brain Tumor Survivors: Current concepts

 Kathryn A. Davis, MD, MTR Neurology
- 12:00 pm Primer on COVID-19 Kathleen M. Murphy, MD – Infectious Diseases

12:15 pm COVID-19 and Cancer Previously recorded conversation from 9/30/2020 as part of the Cancer and COVID-19: Update from Penn's Abramson Cancer Center - a CME-accredited conference (to view in entirety click here) Anthony S Fauci, MD – Director, National Institute of Allergy and Infectious Diseases (NIAID) Charu Aggarwal, MD, MPH – Medical Oncology Robert H. Vonderheide, MD, DPhil – Director, Abramson Cancer Center



NEURO-ONCOLOGY BRAIN TUMORS SYMPOSIUM 2020

12:20 pm Break/Visit Virtual Exhibits and Experts

SCIENTIFIC SESSION 3:

Advances in Precision Surgery, Medical and Radiation Oncology – Survivorship of Patients With Brain Tumors

MODERATOR: Suyash Mohan, MD, PDCC

- 1:00 pm Integrating New Technologies in the Treatment of Malignant Brain Tumors, from LITT to Connectomics - Oncofunctional Optimization Steven Brem, MD – Neurosurgery
- 1:30 pm
 Circulating Tumor DNA in Glioblastoma

 Stephen Bagley, MD, MSCE
 – Hematology Oncology
- **1:50 pm** Anti-Angiogenic Therapy and Current Clinical Trials Arati Desai, MD – Medical Oncology
- 2:15 pm Advances in Radiation Therapy for Patients with Brain Tumors Goldie A. Kurtz, MD – Radiation Oncology
- 2:35 pm Targeted Therapy for Brain Metastases (Melanoma, Breast and Lung Cancer): Principles and progress Tara C. Mitchell, MD – Medical Oncology
- 2:55 pm Stories of Patient Survivors: Navigating the health care system, finding information, clinical trials, innovation, and hope <u>Elizabeth Heisler, PA-C</u> – Neurosurgery <u>Eleanor Miller, MSN, RN, OCN, CBCN</u> – Neuro Oncology
- 3:15 pm CME Concludes

Special Town Hall Meeting with Dr. Steven Brem for Patients, Caregivers, and Family Members Steven Brem, MD – Neurosurgery

4:00 pm Town Hall Concludes



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Overview

The purpose of this educational activity is to provide a review of new treatment options in neurooncology, including surgical techniques, and intraoperative imaging, along with, radiation and systemic therapies that have improved patient outcomes. Sessions will feature the latest advances in state-of-theart 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. Activity format will provide significant opportunity for interaction with expert faculty and other attendees with the aim of implementing new standards of patient care. Participants will leave with up-to-date, practical information which will have immediate clinical application, as well as technical and scientific background on the current state, and where the latest scientific advances may take the field.

Learning Objectives

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

- Implement WHO classification of brain tumors and how molecular profiling affects diagnosis, MRI interpretation, prognosis and therapy of patients with gliomas
- List 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)
- Identify 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
- List the benefits and application of proton therapy for low-grade and malignant gliomas
- Identify the scientific rationale, practical application, and survival benefit of electric field therapy for malignant brain tumors
- Identify the rationale and potential for viral therapies for malignant gliomas
- List recent advances in anti-angiogenic therapy in the treatment of gliomas

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.

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.



NEURO-ONCOLOGY BRAIN TUMORS SYMPOSIUM 2020

DESIGNATION OF CREDIT

PHYSICIANS: Penn Medicine designates this live activity for a maximum of **6.75** 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 6.75 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 **6.75** Category 1 credits for completing this activity.

FACULTY

Activity Director

<u>Steven Brem, MD</u> Professor of Neurosurgery Chief of Surgical Neuro-Oncology Co-Director of Penn Brain Tumor Center Perelman School of Medicine at the University of Pennsylvania/Penn Medicine Philadelphia, PA, USA

Activity Co-Directors

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Associate Professor of Radiology (Neuroradiology) Perelman School of Medicine at the University of Pennsylvania/Penn Medicine Philadelphia, PA, USA



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Guest Speakers

Susan M. Chang, MD

Professor in Residence and Vice Chair of Neurological Surgery Lai Wan Kan Endowed Chair Director, Division of Neuro-Oncology Program Leader, UCSF Comprehensive Cancer Center Director, UCSF Neuro-Oncology Gordon Murray Caregiver Program Co-Director of the Sheri Sobrato Brisson Brain Cancer Survivorship Program Principal Investigator, Brain Tumor Research Center University of California San Francisco San Francisco, CA, USA

Anthony S Fauci, MD

Director, National Institute of Allergy and Infectious Diseases (NIAID) Chief, NIAID Laboratory of Immunoregulation National Institutes of Health, Bethesda, Maryland

Alexandra Golby, MD

Professor of Neurosurgery Professor of Radiology Director of Image-guided Neurosurgery Co-Director AMIGO (advanced multi-modality image-guided OR) Co-Director clinical fMRIHaley Distinguished Chair in the Neurosciences Harvard Medical School Boston, MA, USA

Joseph C. Maroon, MD, FACS

Clinical Professor, Heindl Scholar in Neuroscience University of Pittsburgh Pittsburgh, PA, USA

Penn Speakers

Charu Aggarwal, MD, MPH

Leslye M. Heisler Associate Professor for Lung Cancer Excellence Perelman School of Medicine at the University of Pennsylvania / Penn Medicine Philadelphia, Pennsylvania



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M. Sean Grady, MD

Charles Harrison Frazier Professor of Neurosurgery Director, Neuroscience Service Line Perelman School of Medicine at the University of Pennsylvania / Penn Medicine Philadelphia, PA, USA

Elizabeth Heisler, PA-C

Neurosurgery Penn Medicine Philadelphia, PA, USA

Goldie A. Kurtz, MD

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John Y. K. Lee, MD, MSCE

Professor of Neurosurgery and Otorhinolaryngology: Head and Neck Surgery Medical Director, Gamma Knife Center Clinical Director, Center for Precision Surgery Perelman School of Medicine at the University of Pennsylvania/Penn Medicine Philadelphia, PA, USA

Eleanor Miller, MSN, RN, OCN, CBCN

Neuro Oncology Penn Medicine Philadelphia, PA, USA



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Tara C. Mitchell, MD

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Jennifer JD Morrissette, PhD

Associate Professor of Clinical Pathology and Laboratory Medicine Clinical Director, Center for Personalized Diagnostics Perelman School of Medicine at the University of Pennsylvania/Penn Medicine Philadelphia, PA, USA

Kathleen M. Murphy, MD

Assistant Professor of Clinical Medicine (Infectious Diseases) Perelman School of Medicine at the University of Pennsylvania // Penn Medicine

Seyed Ali Nabavizadeh, MD

Assistant Professor of Radiology Perelman School of Medicine at the University of Pennsylvania/Penn Medicine Philadelphia, PA, USA

MacLean Nasrallah, MD, PhD

Assistant Professor of Clinical Pathology and Laboratory Medicine Perelman School of Medicine at the University of Pennsylvania/Penn Medicine Philadelphia, PA, USA

Donald M. O'Rourke, MD

John Templeton, Jr., M.D. Professor in Neurosurgery Director, GBM Translational Center of Excellence, Abramson Cancer Center Director, Human Brain Tumor Tissue Bank Perelman School of Medicine at the University of Pennsylvania/Penn Medicine Philadelphia, PA, USA

Amy A. Pruitt, MD

William N. Kelley Professor of Neurology Perelman School of Medicine at the University of Pennsylvania/Penn Medicine Philadelphia, PA, USA



NEURO-ONCOLOGY BRAIN TUMORS SYMPOSIUM 2020

Lawrence N. Shulman, MD

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Robert H Vonderheide, MD, DPhil

Director, Abramson Cancer Center John H. Glick Abramson Cancer Center's Director Professor Vice Dean for Cancer Programs, PSOM Vice President for Cancer Programs, UPHS Perelman School of Medicine at the University of Pennsylvania / Penn Medicine Philadelphia, Pennsylvania

Daniel Yoshor, MD

Charles Harrison Frazier Professor of Neurosurgery Chair, Department of Neurosurgery Vice President, Clinical Integration and Innovation Perelman School of Medicine at the University of Pennsylvania/Penn Medicine Philadelphia, PA, USA

PLANNING COMMITTEE MEMBERS

Cynthia L Griffo, MS, RN Director, Communications and Education Penn's Abramson Cancer Center Barbara Lopez Associate Director, Education and Outreach Penn's Abramson Cancer Center



NEURO-ONCOLOGY BRAIN TUMORS SYMPOSIUM 2020

DISCLOSURE OF RELEVANT FINANCIAL RELATIONSHIPS

Staff in the Office of Continuing Medical and Interprofessional Education at Penn Medicine (Belinda Rose, CHCP and Vaughn Wurst) and Planning Committee Members (Cynthia Griffo, MS, RN and Barbara Lopez) have reported that they have no relevant financial relationships with any commercial interest related to the content of this educational activity.

Faculty Name

The following faculty and planning committee members have disclosed that they have no relevant financial relationship with any commercial interests related to the content of this educational activity.

Steven Brem, MD Susan Chang, MD Arati Desai, MD Anthony S Fauci, MD Alexandra Golby, MD M. Sean Grady, MD Elizabeth Heisler, PA-C Goldie A. Kurtz, MD Robert A. Lustig, MD, FACR Joseph C. Maroon, MD, FACS Eleanor Miller, MSN, RN, OCN, CBCN Suyash Mohan, MD, PDCC Kathleen M. Murphy, MD Maclean Nasrallah, MD Amy A. Pruitt, MD Lawrence N. Shulman, MD Daniel Yoshor, MD

The following faculty and planning committee members have reported the relevant financial relationships with commercial interests related to the content of this educational activity

Faculty Name Charu Aggarwal, MD, MPH	Name of Commercial Interest AstraZeneca, Aventis, Bristol-Myers Squibb, Eli Lilly, Genentech, Merck	Relationship Consultant
Stephen Bagley, MD	Bayer, Novocure Eli Lilly , Guardant Health, Incyte Novocure, Tesaro	Advisor/Review Panel Grants/Research Support
Kathryn A. Davis, MD	Eisai, GW Pharmaceuticals Eton Pharmaceuticals Eisai, Epilepsy Co, SK Life Sciences Liva Nova Pfizer	Advisor/Review Panel Grants/Research Support Consultant
John Y.K. Lee, MD	Medtronic, Inc.	Stock Shareholder



NEURO-ONCOLOGY BRAIN TUMORS SYMPOSIUM 2020



Grants/Research Support

Faculty Name Tara C. Mitchell <i>,</i> MD	Name of Commercial Interest Array, Bristol-Myers Squibb, Merck	Relationship Advisor/Review Panel
Jennifer Morrissette, PhD	BioRad, Novartis AG ThermoFisher	Consultant Stock Shareholder
Seyed Ali Nabavizadeh, MD	Blue Earth Diagnostics	Grants/Research Support
Donald O'Rourke, MD	Tmunity Therapeutics Tmuity Therapeutics Novartis AG	Grants/Research Support Holder of Intellectual Property Rights Holder of Intellectual Property Rights

Robert Vonderheide, MD, DPhil Fibrogen, Eli Lilly, Janssen

Relevant Financial Relationships: Financial relationships are those relationships in which the individual benefits by receiving a salary, royalty, intellectual property rights, consulting fee, honoraria, ownership interest (e.g. stocks, stock options or other ownership interest, excluding diversified mutual funds), or other financial benefit. Financial benefits are usually associated with roles such as employment, management position, independent contractor (including contracted research), consulting, speaking and teaching, membership on advisory committees or review panels, board membership and other activities from which remuneration is received or expected.



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