SIXTH ANNUAL

INNOVATIVE APPROACHES TO BRAIN TUMOR MANAGEMENT

Seattle Science Foundation



Continuing Medical Education



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ESTEEMED FACULTY

Charles Cobbs, M.D.

Course Co-Chair
Director, Ben & Catherine Ivy Center
Swedish Neuroscience Institute
Seattle, Washington

Zachary N. Litvack, M.D., FAANS, FACS

Course Co-Chair
Director, Skull Base & Minimally Invasive
Neurosurgery
Swedish Neuroscience Institute
Seattle, Washington

Kester Phillips, M.D.

Course Co-Chair Neuro-oncologist Ben & Catherine Ivy Center Seattle, Washington

Nicholas Butowski. M.D.

Professor, Neurological Surgery
Director, Translational Research, Neuro-Oncology
Neuro-Oncology Chair, CNS Tumors Site Committee UCSF
Helen Diller Family Comprehensive Cancer Center
University of California San Francisco
San Francisco, California

Alexandre Carpentier, M.D., Ph.D.

Neurosurgeon, Researcher, Professor Hospital Pitié-Salpêtrière Paris, France

Costas Hadjipanayis, M.D., Ph.D.

Professor, Chair of Neurosurgery Mount Sinai New York, New York

John Henson, M.D., M.B.A.

Chief of Oncology Services Georgia Center for Oncology Research & Ed. Atlanta, Georgia

Shawn Hervey-Jumper, M.D., FAANS

Associate Professor
University of California San Francisco
Principal Investigator,
Brain Tumor Research Center
San Francisco, California

Rajiv Khanna, Ph.D.

Professor QIMR Berghofer Medical Research Institute Brisbane, Australia

Stephen Magill, M.D., Ph.D.

Neurosurgeon Ohio State University Columbus, Ohio

Robert M. Prins, Ph.D.

Associate Professor Brain Research Institute, UCLA Los Angeles, California

Soma Sengupta M.D., Ph.D., FRCP

Associate Professor in Neurology & Rehabilitation Medicine Harold C. Schott Endowed Chair of Molecular Therapeutics Associate Director of the University of Cincinnati Brain Tumor Center Director of Medical Neuro-oncology Cincinnati, Ohio

Michael E. Sughrue, M.D.

Neurosurgeon Prince of Wales Hospital Sydney, Australia

Nicholas Vitanza, M.D.

Hematology Oncologist Seattle Children's Hospital Seattle, Washington

AGENDA

7:25 a.m. Welcome & Introductions

Charles Cobbs, M.D., Zachary N. Litvack, M.D. & Kester Phillips, M.D.

7:30 a.m. Ultrasound Induced Blood Brain Barrier (USBBB) Transient Opening for Brain Tumors

Alexandre Carpentier, M.D., Ph.D.

Objectives:

- Describe how a USBBB opening is transient and safe
- Identify how a USBBB opening allows for increased any drug uptake
- Outline how a USBBB opening can be performed either by external device, or implanted device

7:45 a.m. Q & A

7:50 a.m. Fluorescence-Guided Surgery of Gliomas

Costas Hadjipanayis, M.D., Ph.D.

Objectives:

- Identify the unmet need for glioma surgery
- Describe how fluorescence-guided surgery (FGS) is performed
- Summarize how FGS can impact glioma surgery and patient outcomes

8:05 a.m. Q & A

8:10 a.m. Translating Scientific Insights into Novel Therapies for Meningioma

Stephen Magill, M.D., Ph.D.

Objectives:

- Describe how molecular profiling of meningiomas informs risk of recurrence
- Discuss why some recurrent meningiomas might benefit from CDK4/6 inhibition

8:25 a.m. Q & A

8:30 a.m. Familial Issues in Brain Tumor Patients

John Henson, M.D.

Objectives:

- Discuss the hereditary basis of cancer
- Identify specific CNS syndromes in hereditary cancer

8:45 a.m. Q & A

8:50 a.m. Update on Immunotherapy for Glioblastoma

Robert M. Prins, Ph.D.

Objectives:

- Describe the factors that can dictate clinically effective immunotherapy in solid tumors
- Identify how the Window of Opportunity/neoadjuvant trial designs impact our understanding of brain tumor immunotherapy

9:05 a.m. Q & A

9:10 a.m. What the Non-Surgeon Needs to Know About Tumor Surgery

Shawn Hervey-Jumper, M.D.

Objectives:

- Describe the goal of glioma surgery
- Describe the relative benefits of extent of resection across glioma subtype

9:25 a.m. Q & A

9:30 a.m. **Promising Clinical Trials for Glioblastoma**

Nicholas Butowski, M.D.

Objectives:

- Identify the challenges of clinical trials in glioblastoma
- Summarize the convection enhanced and oncolytic virus clinical trials for glioblastoma
- Discuss the use of GBM AGILE for glioblastoma

9:45 a.m. Q & A

9:50 a.m. Break & Technology Update (not for CME credit)

10:20 a.m. **CAR-T Cell Targeting of High-Grade Pediatric CNS Tumors**

Nicholas Vitanza, M.D.

Objectives:

- Discuss the background of therapeutic need for pediatric CNS tumors
- Identify how CAR-T cells may be a treatment option for pediatric CNS tumors

10:35 a.m. Q & A

10:40 a.m. **Brain Tumor Survivorship**

Soma Sengupta, M.D., Ph.D.

Objectives

- Identify when does survivorship start
- Explain the importance of brain tumor survivorship

10:55 a.m. Q & A

11:00 a.m. Cytomegalovirus (CMV) Directed Immunotherapy for Glioblastoma (GBM) (pre-recorded) Rajiv Khanna, M.D.

Objectives:

- Discuss how adoptive T cell therapy that is directed to CMV antigens is safe for GBM
- Outline how CMV-specific T cell therapy before GBM recurrence may improve overall
- Recognize how off-the-shelf T cell therapies offer rapid therapeutic options for GBM patients

11:15 a.m. Q & A

11:20 a.m. Connectomics: Changing the Onco-Functional Balance by Preserving and Rewiring Brain **Networks**

Michael E. Sughrue, M.D.

Objectives:

- Discuss the advances in the anatomy of human brain networks
- Summarize the methods for machine learning in the clinical application of connectomics

11:35 a.m. Q & A

Course Wrap Up 11:40 a.m.

11:45 a.m. **Adjourn**

Acknowledgements

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Educational Grant

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Course Planning Committee

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Seattle, Washington

Kester Phillips, M.D.

Course Co-Chair
Neuro-oncologist
Ben & Catherine Ivy Center
Seattle, Washington

Linda Sahlin

Director of Education Seattle Science Foundation Seattle, Washington

Megan Scanlon

Education Specialist Seattle Science Foundation Seattle, Washington

Course Evaluation

Please take a moment to complete our online evaluation, which will be emailed to you. Your feedback helps to ensure the effectiveness of this CME activity, as well as improve future educational activities. All responses are considered anonymous. https://www.surveymonkey.com/r/LH6R859

If you do not receive the survey via email, please call (206) 732-6500 or email cme@seattlesciencefoundation.org.

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Identifying and Resolving Conflicts of Interest

Purpose: The information provided addresses several requirements of the ACCME to help **ensure purpose** in CME activities. Everyone in a position to control the content of a CME activity must disclose all relevant financial relationships with commercial interests to the CME provider. This information must be disclosed to participants prior to the beginning of the activity. Also, CME providers must resolve current conflicts of interest prior to the educational activity.

Definitions: "Financial relationships" are those relationships in which the individual benefits by receiving a salary, royalty, intellectual property rights, consulting fee, honoraria for promotional speakers' bureau, 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. ACCME considers relationships of the person involved in the CME activity to include financial relationships of a spouse or partner.

The ACCME defines a "commercial interest" as any entity producing, marketing, re-selling or distributing health care goods or services consumed by, or used on, patients. Among the exemptions to this definition are government organizations, non-health care related companies and non-profit organizations that do not advocate for commercial interests.

Circumstances create a "conflict of interest" when an individual has an opportunity to affect CME content about products or services of a commercial interest with which he/she has a financial relationship.

ACCME focuses on financial relationships with commercial interests in the 12-month period preceding the time that the individual is being asked to assume a role controlling content of the CME activity. ACCME has not set a minimal dollar amount for relationships to be significant. Inherent in any amount is the incentive to maintain or increase the value of the relationship.

The ACCME defines "relevant financial relationships" as financial relationships in any amount occurring within the past 12 months that create a conflict of interest.

CME Activity Planning Committee Members: I If a conflict of interest exists, the Planning Committee member must withdraw from the Planning Committee unless the conflict can be resolved. Resolution may be made by one of the following methods: (1) Peer review of CME content will be conducted at another oversight level to assure no commercial bias exists; (2) Change in focus of course so the activity does not include information related to products or services about which the planning committee member has a conflict; (3) Severing relationship(s) between the member and any related commercial interest; (4) Others to be determined by SSF CME Committee.

CME Activity Presenter: When a conflict of interest exists, the Planning Committee must address the conflict by one of the following methods: (1) Review content to be presented by speaker in advance to assure content balance; (2) Change topic so the presentation is not related to products or services where a conflict exists; (3) Select a different presenter without any related commercial interest; (4) Include presentations by other faculty to provide an overall balance to the content of the course; (5) Limit or specify the sources for recommendations that the presenter can use. Each speaker is required to give a balanced, evidence-based presentation based on published research. No conclusions or recommendations without external validation may be made by a speaker with a conflict of interest.

Faculty Disclosure Summary

The following planners and presenters (or their spouses/domestic partners) have/had a financial relationship with a commercial interest: (S = Speaker; P = Planner)

Nicholas Bukowski, M.D. (S): Contracted Research: Bayer Corporation, Boehringer Ingelheim Vetmedica GmbH, Bristol-Myers Squibb Aventis, Merch and Company, Inc., Denovo, Bristol-Myers Squibb Sanofi Pharmaceuticals Partnership, CNS, Karyopharm, Istari, Mimivax, Novocure, Biomimex, Oncoceutics, Kiyatec, Stellar Orbus, Medicenna; Consultant: Delmar, Cellinta, VBL, PlusTherapeutics

Alexander Carpentier, M.D., Ph.D. (S): Consultant, Stockholder, Patent Holder: CarThera; Grant/Research Support: French Ministry, H2020 EITHealth, H2020 EIC Accelerator (European Innovation Concil), R01 NCI Nat Cancer Institute

Constantinos Hadjipanayis, M.D., Ph.D. (S): Royalty: NX Development Corporation; Consultant: Synaptive Medical; Speaker: Zeiss

John Henson, M.D., MBA (S): Fees for Non-CE Services Received Directly from a Commercial Interest or its Agent: Parexel

Rajiv Khanna, Ph.D. (S): Consultant: Atara Biotherapeutics; Contracted Research: Atara Biotherapeutics

Soma Sengupta, M.D., Ph.D. (S): Receipt of Intellectual Property Rights/Patent Holder: AMLAL Pharmaceuticals

Michael Sughrue, M.D. (S): Ownership Interest: Omniscient Neurotechnology

The following planners and presenters (or their spouses/domestic partners) have/had no financial relationship with a commercial interest (S = Speaker; P = Planner)

Charles Cobbs, M.D. (P); Shawn Hervey-Jumper, M.D. (S); Zachary Litvack, M.D. (P); Stephen Magill, M.D. (S); Kester Phillips, M.D. (P); Robert M. Prins, Ph.D. (S); Nicholas Vitanza, M.D. (S); Linda Sahlin (P); Megan Scanlon (P)

All planners and presenters attested that their content suggestions and/or presentation(s) will provide a balanced view of therapeutic options and will be entirely free of promotional bias. All presentations have been reviewed by a planner with no conflicts of interest to ensure that the content is evidence-based and unbiased.