AGENDA

7:55 a.m.  Welcome & Announcements
Charles Cobbs, M.D. & Zachary N. Litvack, M.D.

8 a.m.  Advances in The Diagnosis, Evaluation, and Systemic Management of Leptomeningeal Metastasis
Kester Phillips, M.D.
Objectives:
- Identify the pathophysiology and clinical manifestation of leptomeningeal metastasis
- Identify emerging diagnostic tools for leptomeningeal metastasis
- Identify emerging systemic therapeutic options for leptomeningeal carcinomatosis

8:15 a.m.  Q&A

8:20 a.m.  Transiently Opening the Blood-Brain Barrier to Treat Malignancies: Challenges and Opportunities
Matthew Smith-Cohn, D.O.
Objectives:
- Outline the challenges the blood-brain barrier poses in treating primary and secondary malignancies to the brain
- Review treatment approaches being studied to transiently open the blood-brain barrier to increase drug delivery

8:35 a.m.  Q&A

8:40 a.m.  Molecular Evaluation & Treatment of Gliomas
Howard Colman, M.D.
Objectives:
- Identify and apply recent changes in glioma molecular characterization based on cIMPACT and WHO 2021 criteria
- Describe the relationship between integrated histological/molecular diagnosis and appropriate therapy for gliomas

9:05 a.m.  Q&A

9:10 a.m.  What’s New in Surgery for Glioma?
Zachary Litvack, M.D.
Objectives:
- Identify an understanding and knowledge of the latest evidence guiding surgical intervention for brain tumors
- Identify an understanding and knowledge of when surgery is an is not indicated for primary or recurrent brain tumors
- Identify an understanding and knowledge of alternatives and adjuncts to resection
9:25 a.m.  Q&A

9:30 a.m.  Update of Imaging in Brain Tumors
David Olayinka Kamson, M.D., PhD
Objectives:
• Outline ongoing imaging harmonization efforts
• Review new interpretations for old imaging techniques
• Showcase novel experimental imaging approaches

9:45 a.m.  Q&A

9:50 a.m.  Clinical and Molecular Determinants of Outcome for Non-Optic Pathway Gliomas in Adults with Neurofibromatosis Type 1
Carlos Guillermo Romo, M.D.
Objectives:
• Outline the difference in clinical and molecular features of gliomas in people with NF1 compared to sporadic cases
• Identify the treatment options and outcomes for adults with NF1 and a non-optic pathway glioma

10:05 a.m.  Q&A

10:10 a.m.  Update on Immunotherapy of Gliomas
Michael Lim, M.D.
Objectives:
• Describe the current state of immunotherapy for brain tumors
• Identify the strategies to overcome glioma induced immunosuppression

10:25 a.m.  Q&A

10:30 a.m.  Multi-omic analysis of GBM tissues treated with neoadjuvant anti-PD1 therapy at recurrence reveals candidates for combination checkpoint immunotherapy
Jim Heath, Ph.D.
Objectives:
• Outline how the cellular microenvironment of the tumor can be characterized
• Describe how that characterization provides hypotheses for drug targets
• Identify major differences between the microenvironment of melanoma tumors relative to GBM tumors

10:45 a.m.  Q&A

10:50 a.m.  Targeting Cancer Stem Cells for Treatment of Glioblastoma
Parvinder Hothi, Ph.D. (pre-recorded)
Objectives:
• Outline the role of cancer stem-like cells in glioblastomas
• Outline the methods for culturing and viable storage of tumor stem cells
• Explain the use of high-throughput drug screening in devising personalized treatments

11:05 a.m.  Q&A
11:10 a.m.  Incorporation of BRAF – targeted therapy Into Neuro-Oncology Clinical Practice
Karisa Schreck, M.D.
Objectives:
- Recognize molecular alterations for which BRAF – targeted therapy might be efficacious
- Identify appropriate small molecule targeted therapy of clinical trials for an individual patient
- Recognize toxicities of RAF – targeted therapy

11:25 a.m.  Q&A

11:30 a.m.  Innovative Translational Research for Glioblastoma at The Ivy Center at Swedish
Charles Cobbs, M.D.
Objectives:
- Identify critical issues related to immunotherapy for glioblastoma
- Identify key molecules for enhancing/targeting immunotherapy for glioblastoma

11:45 a.m.  Q&A

11:50 a.m.  Primary CNS Lymphoma: An Overview of Management & Highlight of Advances
Joe Mendez, M.D.
Objectives:
- Describe the initial evaluation/work-up of a patient with suspected newly diagnosed Primary CNS Lymphoma (PCNSL)
  a. Identify how to outline the work up to evaluate for the extent of CNS involvement
  b. Identify how to outline the work up to evaluate for systemic involvement
- Identify familiarities with the commonly used induction and consolidation therapies used to treat PCNSL
- Discuss familiarities with the role of targeted therapy and immunotherapy in PCNSL

12:05 p.m.  Q&A

12:10 p.m.  The 2021 WHO Classification of Tumors of the CNS (WHO CNS5)
Daniel Brown, M.D., MBA
Objectives:
- Outline both the major general changes as well as the specific changes in the more common taxonomic tumor categories.
- Recognize the developments that are advancing the role of molecular diagnostics in CNS tumor classification.
- Recognize shifting approaches to CNS nomenclature and grading emphasizing the importance of integrated diagnoses and layered reports.

12:40 p.m.  Q&A
12:45 p.m. Proton Therapy for Leptomeningeal Disease  
*Lia Moriguchi Halasz, M.D.*  
**Objectives:**  
- Explain how proton therapy may improve the therapeutic index for patients with leptomeningeal disease  
- Examine published data on craniospinal irradiation for leptomeningeal metastases  
- Explore future directions in proton therapy for leptomeningeal disease

1 p.m. Q&A

1:05 p.m. Survivorship Care in Neuro-Oncology  
*Akanksha Sharma, M.D.*  
**Objectives:**  
- Review the importance of survivorship care for patients with brain tumors and their loved ones, emphasizing its unique place in cancer care  
- Explain the key areas of importance as it applies to survivorship care for this patient population and the existing evidence on management for each  
- Identify existing models of survivorship programs in neuro-oncology and a potential framework for the development of these programs at brain tumor centers

1:20 p.m. Q&A

1:25 p.m. Wrap Up

1:30 p.m. Adjourn
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

**Matthew Smith-Cohn, D.O.**
Course Co-Chair  
Neuro-oncologist  
Ben & Catherine Ivy Center  
Seattle, Washington

**Daniel Brown, M.D., MBA**
Chair, Department of Pathology & Laboratory Medicine  
Chief, Section of Neuropathology  
Medical Director NHL Lab Medicine  
Lehigh Valley Health Network  
Allentown, PA

**Howard Colman, M.D., Ph.D.**
Leader of Center for Neurologic Cancer  
Huntsman Cancer Institute  
Salt Lake City, Utah

**Lia Moriguchi Halasz, M.D.**
Associate Professor & Residency Director of Department of Radiation Oncology  
Joint Associate Professor Department of Neurological Surgery  
Co-Director Alvord Brain Tumor Center  
Attending Physician UW Medical Center, SCCA  
Proton Therapy Center & Harborview Medical Center

**Jim Heath, Ph.D.**
President Institute for Systems Biology  
Institute Systems Biology  
Seattle, Washington

**Parvinder Hothi, Ph.D.**
Head Lab Scientist  
Ben & Catherine Ivy Center  
Swedish Neuroscience Institute  
Seattle, Washington

**David Olayinka Kamson, M.D., Ph.D.**
Assistant Professor of Neurology  
Department of Neuro-Oncology  
Johns Hopkins Medicine  
Baltimore, Maryland

**Michael Lim, M.D.**
Chair of Neurosurgery  
Stanford Hospital  
Palo Alto, California

**Joe Mendez, M.D.**
Assistant Professor of Neurosurgery  
University of Utah & Huntsman Cancer Institute  
Salt Lake City, Utah

**Carlos Guillermo Romo, M.D.**
Assistant Professor of Neurology  
Johns Hopkins Hospital  
Baltimore, Maryland

**Karisa Shreck, M.D., Ph.D.**
Assistant Professor of Neurology  
The Johns Hopkins Hospital  
Baltimore, Maryland

**Akanksha Sharma, M.D.**
Assistant Professor Neuro-Oncology Translational