

An AACR Special Conference in Cancer Research  
**Brain Cancer**  
October 19-22, 2023 | Hilton Minneapolis | Minneapolis, MN

**APPROVED**

**CURRENT AS OF 10/11/23**

**Conference Cochairs:**

Nada Jabado, McGill University, Montréal, QC, Canada

Jeremy N. Rich, University of Pittsburgh, Pittsburgh, PA

Michael D. Taylor, Texas Children's Hospital and Baylor College of Medicine, Houston, TX

CONFERENCE PROGRAM

**THURSDAY, OCTOBER 19**

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**Registration**

4:00 pm-8:00 pm | Minneapolis Grand Ballrooms Foyer

**Welcome and Introduction**

6:30 pm-6:40 pm | Minneapolis Grand Ballroom ABC

Jeremy N. Rich, University of Pittsburgh, Pittsburgh, PA

Michael D. Taylor, Texas Children's Hospital, Baylor College of Medicine,  
Houston, TX

**Opening Keynote Address**

6:40 pm-7:30 pm | Minneapolis Grand Ballroom ABC

6:40-6:45

**Introduction of Keynote Speaker**

Nada Jabado, McGill University, Montréal, QC, Canada

*Not CME-eligible*

6:45-7:30

**(Re)emerging Principles of Curative Cancer Therapy: Will the Rules  
Apply to GBM?**

William G. Kaelin Jr., Dana Farber Cancer Institute, Boston,  
MA

*CME-eligible*

**Opening Reception**

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7:30 pm-9:00 pm | Minneapolis Grand Ballroom ABC

## FRIDAY, OCTOBER 20

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### Continental Breakfast

7:00 am-8:00 am | Minneapolis Grand Ballroom D

### Plenary Session 1: Novel therapeutic modalities

8:00 am-10:00 am | Minneapolis Grand Ballroom ABC

*Session Chair: Duane A. Mitchell, University of Florida*

*CME-eligible*

8:00-8:30	<b>Cellular immunotherapy targeting malignant brain tumors</b> Duane A. Mitchell, University of Florida, Gainesville, FL
8:30-9:00	<b>GD2-CAR T Cells for Diffuse Midline Gliomas</b> Crystal Mackall, Stanford University, Stanford, CA
9:00-9:30	<b>CAR T Cells for glioblastoma: lessons learned and road ahead</b> Christine E. Brown, City of Hope, Duarte, CA
9:30-10:00	<b>Targeting clonal heterogeneity in treatment-refractory Glioblastoma with novel and empiric immunotherapies</b> Sheila K. Singh, McMaster Children's Hospital, Ontario, Canada

### Break

10:00 am-10:30 am | Minneapolis Grand Ballrooms Foyer

### Plenary Session 2: Tumor immunology and microenvironment

10:30 am-12:00 pm | Minneapolis Grand Ballroom ABC

*Session Chair: Peter Siegel, McGill University*

*CME-eligible*

10:30 -11:00	<b>Brain tumors hijack neuronal mechanisms to thrive</b> Frank A. Winkler, German Cancer Research Center, Heidelberg, Germany
11:00 -11:30	<b>Decoding the language of tumor-neuron crosstalk in glioma</b>

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Benjamin Deneen, Baylor College of Medicine, Houston, TX

11:30 -12:00      **Distinct immune landscapes characterize highly and minimally invasive brain metastases**  
Peter Siegel, McGill University, Montréal, QC, Canada

### Patient Navigation Luncheon

12:00 pm-1:00 pm | Minneapolis Grand Ballrooms D

### Brain Tumor Network Session: Commitment to Connection: How Patient Navigation Can Support the Neuro-Oncology Community

12:30 pm-1:30 pm | Minneapolis Grand Ballroom D

Session Chair: *Jeremy N. Rich, University of Pittsburgh*

*Not CME-eligible*

12:30	Welcome & Introduction Jeremy N. Rich, University of Pittsburgh, Pittsburgh, PA
12:40	Panel Discussion Clark Chen, University of Minnesota, Minneapolis, MN Courtney Burnett, HealthPartners, MN Jill Wyant, Madison Air, Minneapolis, MN
1:20pm	Q&A

### Break

1:30 pm-2:00 pm | Minneapolis Grand Ballrooms Foyer

### Plenary Session 3: Tumor metabolism

2:00 pm-4:00 pm | Minneapolis Grand Ballrooms ABC

Session Chair: *Sameer Agnihotri, University of Pittsburgh*

*CME-eligible*

2:00-2:30	<b>Targeting metabolic complexity in glioblastoma stem cells</b> Jeremy N. Rich, University of Pittsburgh, Pittsburgh, PA
2:30-3:00	<b>Targeting hallmarks of brain tumors with metabolic vulnerabilities</b> Sameer Agnihotri, University of Pittsburgh, Pittsburgh, PA

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3:00-3:30

### **Oncometabolism in childhood brain cancer**

Sriram Veneti, University of Michigan, Ann Arbor, MI

### **Break**

4:00 p.m.- 4:15 p.m.

### **Spotlight on Proffered Talks I**

4:15 pm-5:45 pm | Minneapolis Grand Ballrooms ABC

Session Chair: *Sriram Veneti, University of Michigan*

*CME-eligible*

4:15-4:30

### **Beta-adrenergic blockade licenses the use of immunotherapy in primary brain tumors and brain metastases**

Selena Lorrey, Duke University, Durham, NC

4:30-4:45

### **Uncovering novel therapeutic avenues for glioma by exploring the functional interplay of FGFR1, p53, and ribosome biogenesis**

Mikael Lindström, Karolinska Institutet, Stockholm, Sweden

4:45-5:00

### **In vivo genome-wide CRISPR/Cas9 screens conducted in an immunocompetent mouse model of glioblastoma identify novel in vivo tumor liabilities and potential mechanisms of resistance to chimeric antigen receptor T-cell (CAR-T) therapy**

Catherine Koch, MIT, Boston, MA

5:00-5:15

### **Targeting EPHB2/ABL1 restores anti-tumor immunity in a preclinical model of ependymoma**

Taylor Uccello, Massachusetts General Hospital and Harvard Medical School, Boston, MA

5:15-5:30

### **CAR T-cell motility response to interstitial fluid flow and tumor microenvironment**

Gabriela Geraldo Mendes, Virginia Tech University, Roanoke, VA

5:30-5:45

### **The role of tumor microenvironment in metastasis and relapses of medulloblastoma using immunocompetent mouse models**

Niusha Khazaei, McGill University, Montreal, QC, Canada

### **Lightning Talks I**

5:45 pm-6:00 pm | Location

Session Chair: *Jeremy N. Rich, University of Pittsburgh*

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- 5:45-5:48 Introduction by Dr. Rich
- 5:49-5:51 **Phase II trial evaluating the association of peripheral blood immunologic response and therapeutic response to immune checkpoint inhibition in patients with newly diagnosed glioblastoma and gliosarcoma**  
Matthew Watowich, National Cancer Institute, Bethesda, MD [A019]
- 5:52-5:54 **A new international program to accelerate novel therapeutics for brain tumors: presenting the brain tumor research novel therapeutics accelerator**  
Charlotte Aitken, Tessa Jowell Brain Cancer Mission, London, United Kingdom [A034]
- 5:55-5:56 **Testing neuro-oncology tenets: are MRI findings and symptoms different with true progression compared with immunotherapy-related treatment effect in patients with primary brain tumors?**  
Emma Byrne, National Cancer Institute, Bethesda, MD [A044]

### Poster Session A / Reception

6:00 pm-8:00 pm | Minneapolis Grand Ballroom D

## SATURDAY, OCTOBER 21

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### Continental Breakfast

7:00 am-8:00 am | Minneapolis Grand Ballroom D

### Plenary Session 4: Epigenetics and epitranscriptomics

8:00 am-10:00 am | Minneapolis Grand Ballrooms ABC

*Session Chair: Marco Gallo, Texas Children's Hospital and Baylor College of Medicine*

*CME-eligible*

- 8:00-8:30 **Oncohistones: how to co-opt chromatin architecture to regulate developmental transcriptional programs**  
Nada Jabado, McGill University, Montréal, Quebec City, Canada
- 8:30-9:00 **Elucidating the genetic alterations that predispose to the development and malignant progression of IDH-mutant glioma**

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Daniel Schramek, Lunenfeld-Tanenbaum Research Institute, Toronto, Ontario, Canada

9:00-9:30

### **Rearrangements and the 3D genome**

Rameen Beroukhim, Dana-Farber Cancer Institute, Boston, MA

9:30-10:00

### **KMT2D suppresses SHH-driven medulloblastoma progression and metastasis**

Alexandra Joyner, Memorial Sloan Kettering Cancer Center, New York, NY

### **Break**

10:00 am-10:30 am | Minneapolis Grand Ballrooms Foyer

### **Second Keynote Address**

10:30 am-11:15 am | Minneapolis Grand Ballrooms ABC

10:30-10:32

### **Introduction of Keynote Speaker**

Michael D. Taylor, Texas Children's Hospital and Baylor College of Medicine, Houston, TX

*Not CME-eligible*

10:32-11:15

### **Metabolic reprogramming and cancer progression in patients**

Ralph J. DeBerardinis, University of Texas Southwestern, Dallas, TX

*CME-eligible*

### **Special Lecture**

11:15 am-11:45 am | Minneapolis Grand Ballrooms ABC

*CME-eligible*

### **ZIC1: A Context Dependent Medulloblastoma Driver in the Rhombic Lip**

Michael D. Taylor, Texas Children's Hospital and Baylor College of Medicine, Houston, TX

### **Spotlight on Proffered Talks II**

11:45 am-12:45 pm | Minneapolis Grand Ballrooms ABC

*Session Chair: Michael E. Pacold, NYU Langone Health*

*CME-eligible*

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- 11:45-12:00    **Modeling epigenetic lesions that cause gliomas**  
Gilbert Rahme, Dana-Farber Cancer Institute, Boston, MA
- 12:00-12:15    **H3.3K27M diffuse midline gliomas are sensitive to SWI/SNF chromatin remodeler degradation**  
Mateus Mota, University of Michigan, Ann Arbor, MI
- 12:15-12:30    **Associations between PM 2.5, vegetation density and childhood brain tumors: a case-control registry-based study from Texas 1995-2011**  
Lindsay Williams, University of Minnesota, Minneapolis, MN
- 12:30-12:45    **Asc1lb progenitor-specific RB conditional inactivation in zebrafish models rare CNS primitive neuroectodermal tumors**  
Maura McGrail, Iowa State University, Ames, IA

### Lunch on own

12:45 pm-2:15 pm

### Plenary Session 5: 3D genomes and spatial sequencing

2:15 pm-3:45 pm | Minneapolis Grand Ballrooms ABC

Session Chair: *Claudia Kleinman, McGill University*

CME-eligible

- 2:15 -2:45                    **3D genomes in childhood brain cancers**  
Marco Gallo, Texas Children's Hospital and Baylor College of Medicine, Houston, Texas
- 2:45-3:15                    **Epigenome engraving of cellular lineage in childhood high-grade gliomas**  
Claudia Kleinman, McGill University, Montreal, QC, Canada
- 3:15-3:45                    **Deep learning-based virtual brain tumors for virtual clinical trials**  
Richard J. Gilbertson, University of Cambridge, Cambridge, England

### Lightning Talks II

3:45 pm-4:00 pm | Minneapolis Grand Ballrooms ABC

Session Chair: *Nada Jabado, McGill University*

CME-eligible

3:45-3:47    Introduction by Dr. Jabado

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- 3:48-3:50 **Clinico-genomic characteristics of breast cancer brain metastasis: a multi-institutional analysis from AACR Project GENIE BPC**  
Hannah Fuchs, Memorial Sloan Kettering Cancer Center, New York, NY
- 3:51-3:53 **Establishment of patient-derived brain metastasis initiating cells as a novel preclinical model of breast cancer metastatization**  
Stefania Faletti, Istituto Europeo di Oncologia, Milan, Italy
- 3:54-3:56 **CHD5 suppresses glioblastoma by inhibiting MYC**  
Xueqin Sherine Sun, Cold Spring Harbor Laboratory, New York, NY

### Poster Session B/ Reception

4:00 pm-6:00 pm | Minneapolis Grand Ballroom D

## SUNDAY, OCTOBER 22

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### Continental Breakfast

7:00 am-8:00 am | Minneapolis Grand Ballroom D

### Plenary Session 6: Emerging molecular targets

8:00 am-9:30 am | Minneapolis Grand Ballrooms ABC

*Session Chair: Joseph F. Costello, University of California, San Francisco*

*CME-eligible*

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|-----------|---|
| 8:00-8:30 | <b>Targeted therapies in childhood brain tumors; what can we learn from MAPK targeting in low grade glioma</b><br>Darren Hargrave, University College London Great Ormond Street Hospital, London, United Kingdom |
| 8:30-9:00 | <b>Methylation-based diagnostics of CNS neoplasms</b><br>Kenneth D. Aldape, National Institute of Health, Bethesda, Maryland  |
| 9:00-9:30 | <b>Immortal and evolving: The formative years of tumor cells</b><br>Joseph F. Costello, University of California, San Francisco, San Francisco, CA  |



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### Break

9:30 am-9:45 am | Minneapolis Grand Ballrooms Foyer

### Plenary Session 7: Brain metastasis

9:45 am-11:30 am | Minneapolis Grand Ballrooms ABC

*Session Chair: Priscilla K. Brastianos, Harvard Medical School/MGH*

*CME-eligible*

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|-------------|--|
| 9:45-10:15  | <b>Metabolic reprogramming in leptomeningeal metastasis</b><br>Adrienne A. Boire, Memorial Sloan Kettering Cancer Center, New York, NY   |
| 10:15-10:45 | <b>In search of precision medicine approaches for central nervous system metastases: from bench to bedside (and back to bench)</b><br>Priscilla K. Brastianos, Harvard Medical School/Massachusetts General Hospital, Boston, MA |
| 10:45-11:15 | <b>Metabolic dependencies of brain metastases</b><br>Michael E. Pacold, NYU Langone Health, New York, NY   |
| 11:15-11:30 | <b>Brain metastases roadmap reveals conserved regulatory dynamics rooted in dormant tumor cells</b><br>Remi Klotz, University of Maryland School of Medicine, Baltimore, MD  |

### Closing Remarks

11:30 -11:35 am

#### Closing remarks

Michael D. Taylor, Texas Children's Hospital and Baylor College of Medicine, Houston, TX