# Children's Brain Tumor Network
### Until every child is cured

# 2022
# SCIENTIFIC SUMMIT
## PROGRAM SCHEDULE

## MONDAY, OCTOBER 17, 2022

### CHILDREN'S NATIONAL RESEARCH & INNOVATION CAMPUS
### WASHINGTON, D.C.

| BREAKFAST AVAILABLE | 8:15–9:00 AM |
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| DRIVING CBTN GOALS FOR RESEARCH AND DISCOVERY & PRECISION MEDICINE | 9:00–9:10 AM |
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| TITLE | PRESENTER |
|---|---|
| Opening Remarks | Carl Koschmann, *Associate Professor of Pediatric Oncology* University of Michigan Health *CBTN Scientific Co-Chair* |

| KEYNOTE ADDRESS: FORWARD TOWARDS PRECISION MEDICINE | 9:10–9:40 AM |
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| Building a Digital Health Strategy: The First Step in Precision Medicine | Ken Harris, Head, *Academic Medicine and State/Local Government Healthcare Providers* Amazon Web Services |
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| PBTA OVERVIEW: DISEASE & DATA TYPES FOR RESEARCH | 9:40–9:55 AM |
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| Creating a Pediatric Brain Tumor Discovery Ecosystem: Current State and Future Directions | Adam Resnick, $D^3b$ Co-Executive Director Children's Hospital of Philadelphia *CBTN Scientific Director* |
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| PEDIATRIC BRAIN TUMOR PRECISION MEDICINE CHALLENGES, OPPORTUNITIES & ADVANCEMENTS | 9:55–10:55 AM |
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| My Pediatric and Adult Rare Tumor Network (MyPART) | Mary Francis Wedekind, *Center for Cancer Research* National Cancer Institute |
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| The Zero Childhood Cancer's Digital Precision Medicine Platform: Scaling Up from High-risk to all Children, Adolescents and Young Adults with Cancer in Australia | Mark Cowley, *Associate Professor* Children's Cancer Institute |
| PNOC027: Functional Precision Medicine for Medulloblastoma | Rob Wechsler-Reya, *Adjunct Professor* Sanford Burnham Prebys |
| Computational Screen to Identify Potential Targets for the CBTN Cohort | Avi Ma'Ayan, *Professor of Pharmacological Sciences* Icahn School of Medicine at Mount Sinai |

| BREAK | 10:55–11:05 AM |
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## DNA                                                                11:05–12:05 PM

| TITLE | PRESENTER |
|---|---|
| Genetic Origin and Somatic Evolution of Childhood Medulloblastoma | Sebastian Waszak, *Associate Professor of Neurology* UCSF School of Medicine |
| Germline Predisposition Across Neuroblastoma and Pediatric Brain Tumors | Sharon Diskin, *Department of Biomedical & Health Informatics* Children's Hospital of Philadelphia |
| A Pediatric Brain Tumor Atlas of Genes Deregulated by Somatic Genomic Rearrangement | Chad Creighton, *Co-Director of Cancer Bioinformatics* Baylor College of Medicine |
| Circular Extrachromosomal DNA in Childhood cancers | Lukas Chavez, *Assistant Professor* UC San Diego Health |

## WORKING LUNCH – TRAINING & NETWORKING OPPORTUNITIES (IN-PERSON)    12:05–1:00 PM

## RNA                                                                1:00–1:30 PM

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| Transcriptional Analysis Identifies Distinct Immune Clusters In Pediatric Nervous System Tumours | Arash Nabbi, *Post-Doctoral Fellow* University of Calgary |
| New Methods to Diagnose and Measure Drug Resistance in Childhood Cancer | Adam Shlien, *Department of Paediatric Laboratory Medicine* Hospital for Sick Children (SickKids) |

## SINGLE-CELL/SPATIAL TRANSCRIPTOMICS                                1:30–2:15 PM

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| Pro-inflammatory Microglia and the Mesenchymal Transformation of Pediatric Ependymoma | Pablo Gonzalez-Camara, *Assistant Professor of Genetics* University of Pennsylvania |
| Project HOPE: Single-cell Studies of Pediatric Glioma | Aaron Diaz, *Assistant Professor of Neurological Surgery* UCSF Weill Institute for Neurosciences |
| Single-cell Analysis of Therapy Response in Pediatric High-grade Glioma | Kai Tan, Director, *Center for Single-cell Biology* Children's Hospital of Philadelphia |

## DNA METHYLATION                                                    2:15–2:30 PM

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| The Role of Methylation Profiling in Diagnosis of Central Nervous System Tumors of Childhood | Ken Aldape, *Chief of the Laboratory of Pathology* National Cancer Institute |

## PROTEOMICS                                                         2:30–3:15 PM

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| CPTAC and its Goals for Translational Integration of Proteomics/Proteogenomics | Henry Rodriguez, *Director of the Office of Cancer Clinical Proteomics Research* National Cancer Institute |
| Proteomic Analysis to Understand Biology and Disease | Hui Zhang, *Professor of Pathology* Johns Hopkins Medicine |
| Proteogenomic Study of Pediatric and AYA Brain Tumors | Pei Wang, *Professor of Genetics and Genomic Sciences* Icahn School of Medicine at Mount Sinai |

| BREAK | 3:15–3:30 PM |
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| IMAGING | 3:30–4:15 PM |
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| TITLE | PRESENTER |
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| Imaging of Tumor Microenvironments in Pediatric Neuro-Oncology, Current Efforts and Future Directions | Ali Nabavizadeh, *Assistant Professor of Radiology* University of Pennsylvania |
| Computational Neuroradiology in Pediatric Neuro-Oncology: Towards Integrated Data-Driven Discovery Using CBTN Data | Anahita Fathi Kazerooni, *Research Instructor* University of Pennsylvania |
| Every Patient Deserves Their Own Equation | Kristin Swanson, *Mathematical Oncologist* Mayo Clinic |

| CLINICAL DATA | 4:15–5:00 PM |
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| Transforming How Researchers Share Data: Lessons from the Pediatric Cancer Data Commons | Sam Volchenboum, *Associate Professor of Pediatrics* University of Chicago Medicine |
| CBTN: Case Example | Sarah Leary, *Medical Director, Pediatric Brain Tumor Program* Seattle Children's Hospital |

| CLOSING REMARKS | 5:00 PM |
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| Closing Remarks & Info for the Evening Program | Michael Prados, *Professor of Neurological Surgery* UCSF Department of Neurological Surgery *CBTN Scientific Co-Chair* |

| POSTER SESSION | 5:30–7:30 PM |
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