

Childhood Cancer Research Symposium

Wednesday 7 February 2018

Hudson Institute of Medical Research

Program Chairs: Dr Jason Cain, Assoc/Prof Ron Firestein and Prof Bryan Williams

8:50 – 9:00	Symposium Opening: Prof Elizabeth Hartland Director and CEO, Hudson Institute of Medical Research
	Session 1: Paediatric Brain Tumours - Chaired by Dr Jason Cain
9:00 – 9:30	Prof Annie Huang (SickKids Hospital, Toronto, Canada): Learning from rare brain cancers of infancy Dr Huang is Senior Neuro-Oncologist with the Paediatric Brain Tumour Program at The Hospital for Sick Children (SickKids Hospital), Toronto, where she also holds appointments as Senior Scientist in cell biology and Principal Investigator at the Arthur and Sonia Labatt Brain Tumour Research Centre. She is an Assoc/Prof in the Departments of Paediatrics, Lab Medicine and Pathobiology, University of Toronto.
9:30 – 9:45	Dr Daniel Gough (Hudson Institute of Medical Research): Sexually dimorphic roles for STAT3 in medulloblastoma Dr Gough is a Biochemist, Cancer Biologist and Head of the STAT Cancer Biology Group in the Centre for Cancer Research at Hudson Institute. Dr Gough's research focuses on signal transduction pathways which engage the signal transducer and activator of transcription (STAT) proteins in normal development and how these pathways alter in childhood cancers.
9:45 – 10:15	Dr Jens Bunt (Queensland Brain Institute): When oncology and neuroscience collide: The role of nuclear factor one genes in brain development and tumorigenesis Dr Bunt is a Research Fellow and Team Leader in the Brain Development and Disorders Laboratory headed by Prof Linda Richards at the Queensland Brain Institute, University of Queensland (Brisbane). His research aim is to combine neuro-oncological research and neurodevelopmental studies in order to better understand brain tumorigenesis and translate this knowledge in differentiation-based treatment strategies.
10:15 – 10:30	The Parent Perspective Ms Liz Dawes (Robert Connor Dawes Foundation): Being fearless Ms Dawes is the Founder and Executive Director of the Robert Connor Dawes Foundation which operates in Australia and the USA. Driven by her son's own battle, she is leading a new movement; inspiring the young and young at heart to support paediatric brain tumour matters in the areas of research, care and development.
10:30 – 11:00	Morning Tea

	Session 2: Translational Research Highlights - Chaired by Assoc/Prof Ron Firestein
11:00 – 11:30	<p>Dr Amos Loh (KK Women’s and Children’s Hospital, Singapore): Development of preclinical models of paediatric solid tumours and translational applications</p> <p>Dr Loh is a Consultant Surgeon with the Department of Paediatric Surgery at KK Women’s and Children’s Hospital and sub-specializes in paediatric surgical oncology. He is also Chairman of the Paediatric Oncology Group, Singapore and the VIVA-KKH Paediatric Brain and Solid Tumour Program – a strategic collaboration between KK Hospital the VIVA Foundation for Children with Cancer and St Jude Children’s Research Hospital, Memphis, USA. His research focuses on the development of paediatric solid tumour models and preclinical research to devise novel treatment strategies. Dr Amos is also interested in the discovery of biomarkers for prognostication and therapeutic stratification of paediatric solid tumours.</p>
11:30 – 11:45	<p>Dr Jason Cain (Hudson Institute of Medical Research): Epigenetic therapies in malignant rhabdoid tumours</p> <p>Dr Cain is Head of the Developmental and Cancer Biology Research Group at Hudson Institute’s Centre for Cancer Research and a Chief Investigator for the Paediatric Precision Medicine program. A Developmental and Cancer Biologist, Dr Cain is driving cutting-edge research to understand the role of critical embryonic signalling pathways and epigenetic mechanisms in normal and abnormal development and disease, including paediatric connective tissue (sarcomas) and brain cancers (including atypical teratoid rhabdoid tumours, medulloblastoma and diffuse intrinsic pontine glioma).</p>
11:45 – 12:00	<p>Dr Alexandra Sexton-Oates (Murdoch Children’s Research Institute): Integrative analysis of transformation in paediatric low-grade glioma</p> <p>Dr Sexton-Oates completed her PhD through the University of Melbourne and Murdoch Children’s Research Institute (MCRI) under the supervision of Prof Richard Saffery, Assoc/Prof Duncan MacGregor and Prof Michael Sullivan in 2016. Since graduating, she has been working as a Postdoctoral Research Officer at MCRI with Assoc/Prof Paul Ekert and Prof Richard Saffery, focusing primarily on DNA methylation analysis of low grade gliomas in children.</p>
12:00 – 12:15	<p>Assoc/Prof Elizabeth Algar (Hudson Institute of Medical Research): New insights into paediatric cancer using targeted NGS</p> <p>Assoc/Prof Algar is a Principal Scientist in Genetics and Molecular Pathology at Monash Health with academic appointments at Hudson Institute and Monash University. Her laboratory provides accredited molecular testing for diagnostic and treatment indications for a broad range of cancers and associated genetic conditions and currently tests in excess of 2000 specimens annually. Assoc/Prof Algar’s laboratory offers the only comprehensive genetic testing service in Australia for both somatic and germline mutations in paediatric cancers including atypical teratoid rhabdoid tumour and Wilms Tumour and the only diagnostic service for genetic ascertainment of Beckwith Wiedemann, Russell Silver syndromes and related imprinting disorders.</p>
12:15 – 12:30	<p>Assoc/Prof Paul Ekert (Murdoch Children’s Research Institute): Fusion gene detection and biology in paediatric cancer</p> <p>Assoc/Prof Ekert is the Group Leader of Cancer Research at Murdoch Children’s Research Institute. He is also a Paediatrician, a Fellow of the Faculty of Science at the Royal College of Pathologists and is cross appointed in the Children’s Cancer Centre to head the development of molecular/genomic testing in paediatric cancer. Assoc/Prof Ekert’s research team focuses</p>

	<p>on understanding the molecular basis of childhood cancer and using this knowledge to develop better diagnostics and treatments for children with malignant cancer. His team works with groups throughout Australia in trials developing genomics as a core part of the diagnostic workup of children with cancer.</p>
12:30 – 1:30	Lunch
	Session 3: Paediatric Precision Medicine - Chaired by Prof Bryan Williams
1:30 – 1:45	<p>Dr Jordan Hansford (Royal Children’s Hospital): Getting the diagnosis correct: Impact of AIM Brain on Australian kids</p> <p>Dr Hansford is a Paediatric Oncologist at the Solid and Brain Tumour Division of The Royal Children's Hospital, Melbourne. He is also on the Consultant Medical Staff for solid tumours and neuro oncology. Dr Hansford has a keen research interest in cancer genetics and rare brain tumours, including low-grade gliomas and medulloblastomas.</p>
1:45 – 2:00	<p>Asst/Prof Angela Waanders – The Children’s Brain Tumour Tissue Consortium (CBTTC): The CBTTC vision and goals with a focus on the autopsy program</p> <p>Dr Waanders primary research focus is to develop novel therapeutic strategies and to improve the clinical outcomes for children with incurable brain tumours. Dr Waanders has extensive experience in the phenotypic classification of genomic findings in childhood cancers. Additionally, as a clinically trained Neuro-Oncologist, Dr Waanders cares for children with underlying constitutional neurological syndromes that predispose them to cancer. As a Paediatric Haematology/Oncology Fellow, her work directly led to the discovery of an activated novel KIAA1549-BRAF fusion oncogene in the majority of paediatric low-grade gliomas (PLGGs). This genomic abnormality has since been found to be a hallmark of PLGGs.</p>
2:00 – 2:15	<p>Assoc/Prof Rishi Lulla (CBTTC): Current precision medicine studies in the USA, interaction/empowered by CBTTC</p> <p>Dr Lulla is an advanced fellowship trained, clinical and translational investigator in paediatric neuro-oncology with research interests in biomarkers of paediatric central nervous system (CNS), epigenetics of malignant glioma and other brain tumours, neuro-immunology and early phase clinical trials. Dr Lulla’s research endeavours are centred in the paediatric neuro-oncology program at Ann & Robert H. Lurie Children’s Hospital of Chicago.</p>
2:15 – 2:30	<p>Asst/Prof Adam Resnick (CBTTC): Innovation through collaboration: New models for an integrated data-driven healthcare ecosystem</p> <p>Dr Resnick’s research is focused on cell signalling cascades and their alterations in paediatric brain tumours. Dr Resnick’s laboratory has undertaken efforts to characterize the molecular mechanisms and mutations of paediatric brain tumours in order to implement new precision medicine targeting efforts that provide greater specificity and reduced toxicity in the context of the developing central nervous system of paediatric brain tumour patients. Dr Resnick is the Scientific Chair of two consortia (CBTTC and PNO) respectively dedicated to biospecimen-driven data generation and precision medicine clinical trials.</p>
2:30 – 2:45	<p>Assoc/Prof Phillip (Jay) Storm (CBTTC): Paediatric neurosurgical case review at the Children’s Hospital of Philadelphia</p> <p>Dr Storm is the Chief of Neurosurgery at the Children’s Hospital of Philadelphia (CHOP). He</p>

	<p>runs a translational brain tumour laboratory and is the Co-Director of the Centre for Data-Driven Discovery in Biomedicine. Dr Storm's laboratory is focused on cell signalling in brain tumours in order to find targeted therapies that improve outcomes and reduce toxicity.</p>
2:45 – 3:00	<p>Assoc/Prof Javad Nazarian (CBTTC): Clinical and translational characterization of liquid biome in paediatric midline gliomas</p> <p>Dr Nazarian is the Scientific Director of the Brain Tumour Institute (BTI) at Children's National Health System and a Principal Investigator in the Center for Cancer and Immunology Research, where his laboratory actively investigates the molecular mechanisms of diffuse intrinsic pontine gliomas (DIPGs) and establishes preclinical models of paediatric brain tumours. Dr Nazarian has also contributed to the expansion of the comprehensive biorepository at Children's National, growing from 12 samples six years ago to more than 3,000 specimens donated by more than 900 patients with all types of paediatric brain tumours, including DIPG. Recently he was also appointed Scientific Co-chair of the CBTTC.</p>
3:00 – 3:15	<p>Assoc/Prof Ron Firestein (Hudson Institute of Medical Research): The Hudson Institute's paediatric precision medicine program: The role of functional genomics in precision medicine</p> <p>Assoc/Prof Firestein is the Head of the Cancer Centre at Hudson Institute and Head of Research for the paediatric cancer precision medicine program. Assoc/Prof Firestein is a Physician Scientist double board certified in pathology (anatomic and molecular genetics). His research focuses on identifying new targets and developing therapies for solid tumour malignancies.</p>
3:15 – 3:30	<p>Closing Remarks: Prof Bryan Williams, Assoc/Prof Ron Firestein and Dr Jason Cain</p>