

Childhood Cancer Research Symposium

- PROGRAM -
Wednesday, 13 February 2019

SYMPOSIUM OPENING

8:50 - 9:00

WELCOME AND INTRODUCTIONS

Professor Elizabeth Hartland, Director and CEO | Hudson Institute of Medical Research

SESSION 1 | New Therapeutic Opportunities in Paediatric Cancer Research | Chaired by Dr Jason Cain

9:00 - 9:40

Prof Martine Roussel | St Jude Children's Research Hospital *'Epigenetic regulators in pediatric medulloblastoma'*

Dr Roussel obtained her PhD at the University of Sciences in Lille, France, and did her post-doctoral fellowship as a Fogarty International Fellow in the Laboratory of Tumor Virus Genetics at the National Cancer Institute in Bethesda, MD. She moved to St Jude Children's Research Hospital (SJCRH) where she rose through the ranks and is now Full Member in the Department of Tumor Cell Biology and Full Professor in the Department of Molecular Sciences at the University of Tennessee. Dr Roussel has lead the Cancer Biology Program of the SJCRH Comprehensive Cancer Center since 2006 and holds the SJCRH Endowed Chair in Molecular Oncogenesis since 2007. Dr Roussel is a member of several advisory boards, including the Board of Scientific Advisors to the NCI director, scientific review committees and she serves on several editorial boards. In 2011, she was elected to the American Academy of Arts and Sciences and was ranked as one of the top 50 French personalities in the USA. In 2017, she was awarded by St. Jude postdoctoral fellows the Mentor of the Year.

Dr Roussel's research interest covers many aspects of the regulation of cell proliferation from understanding mitogenic and apoptotic signals to G1 restriction point control and how they regulate the central nervous system. More recently, she has been interested in the role of epigenetic regulators in paediatric embryonal tumours. She has published > 200 publications. In the past 15 years, Dr Roussel has developed several mouse models and patient-derived xenografts of medulloblastoma to assess the role of targeted and non-targeted agents in pre-clinical trials that to date led to two ongoing clinical trials at SJCRH.



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9:40 - 10:00	<p>Dr Misty Jenkins Walter and Eliza Hall Institute of Medical Research <i>‘Using Chimeric Antigen Receptor Immunotherapy as a treatment for paediatric brain tumours’</i></p> <p>Dr Misty Jenkins is a NHMRC RD Wright fellow and laboratory head in the Immunology Division at Walter and Eliza Hall Institute for Medical Research, where she researches cellular immunology and cancer immunotherapy. Dr Jenkins studied her PhD in Immunology at The University of Melbourne, followed by postdoctoral positions at The Universities of Cambridge and Oxford, and The Peter MacCallum Cancer Centre in Melbourne. Dr Jenkins has a long-standing interest in CD8+ T cell cytotoxicity, understanding and imaging the immune synapse, and chimeric antigen receptor T (CAR T) cell immunotherapy. Dr Jenkins’ laboratory currently researches the use of CAR T cell immunotherapy for brain cancer, where she focuses on high grade glioma in paediatric and adult patients. Dr Jenkins was awarded the L’Oreal for Women in Science Fellowship (2013), was Tall Poppy of the year (2015) and won the Westpac/Australian Financial Review Top100 Women of Influence award (2016).</p>
10:00 - 10:20	<p>Associate Professor Ron Firestein Hudson Institute of Medical Research <i>‘Hudson-Monash Paediatric Precision Medicine: Update and discoveries’</i></p> <p>A/Prof Firestein is a Physician Scientist (MD/PhD), double board certified in Pathology (Anatomic and Molecular Genetics) specialising in Cancer Research, Oncology Translational Medicine, Oncology Drug Discovery and Biomarker Development. The unifying goal of A/Prof Firestein’s research focuses on identifying new cancer targets and developing therapies for solid tumour malignancies. In this regard, he holds 10 patents in the field of cancer therapeutics and his work has been published in top scientific journals (including <i>Nature, Cell, Cancer Cell, and J. Clinical Investigation</i>).</p> <p>A/Prof Firestein earned his B.A from the University of Pennsylvania in Biology and his M.D./Ph.D. from Stanford University as part of the prestigious Medical Scientist Training Program (MSTP) in 2002. He completed residency in Anatomic Pathology at the Brigham and Women’s Hospital and fellowships in Molecular Pathology at Harvard Medical School and at the Broad Institute of Harvard and MIT, where he received the Thomas Gil award for excellence in research.</p> <p>From 2009-2015, A/Prof Firestein led research and translational teams at Genentech Inc., focusing on identifying new therapeutic targets and developing biomarkers for precision cancer therapies in the clinical trial setting. In August 2015, he was recruited as the Head of the Centre for Cancer Research at Hudson Institute.</p>
10:20 – 10:40	<p>Professor Richard B Lock Children’s Cancer Institute <i>‘Innovative approaches to new agent testing in childhood leukaemia’</i></p> <p>Prof Richard Lock was recruited as Head of Children’s Cancer Institute’s Leukaemia Biology Program in 1998 from the position of Associate Professor, Department of Medicine and Department of Biochemistry and Molecular Biology, University of Louisville, Kentucky, USA. Prior to his move, he had attained an international reputation in the cancer-related fields of cell cycle control, drug resistance and mechanisms of programmed cell death (apoptosis).</p> <p>Since arriving at Children’s Cancer Institute, Prof Lock has successfully developed a clinically relevant laboratory model for the in vivo growth of human acute lymphoblastic leukaemia cells – the first such model in Australia. The model now plays a central role in the preclinical evaluation of anticancer agents and the identification of new targets for targeted therapies.</p> <p>His contribution to cancer research has been reflected in his authorship of 160 peer-reviewed papers, including several in prestigious journals such as <i>Cancer Cell, Blood, Cancer Research, Cell Stem Cell, Clinical Cancer Research, The Journal of Biological Chemistry, Molecular and Cellular Biology, and Oncogene</i>. He is currently a National Health and Medical Research Council Senior Research Fellow and has been awarded research grants by the National Cancer Institute (USA), The Cancer Council NSW (Australia), and the National Health and Medical Research Council (Australia).</p>
10:40 - 11:10	MORNING TEA

SESSION 2 | From Bench to Bedside: Translational Methods and Tools | Chaired by Associate Professor Ron Firestein

11:10 - 11:50	<p>Associate Professor Rodney Stewart Huntsman Cancer Institute, University of Utah <i>'Zebrafish models and mechanisms of embryonal tumors'</i></p> <p>Dr Rodney Stewart is an Assistant Professor in the Department of Oncological Sciences at the University of Utah and a Huntsman Cancer Institute (HCI) investigator. He is a member of the Cell Response and Regulation Program. Before joining HCI, Dr Stewart was a research fellow in the Department of Pediatric Oncology at Harvard Medical School, Dana-Farber Cancer Institute, where he also served as an instructor in paediatric oncology. While there, he studied neural crest development and cancer in zebrafish. He earned a PhD from Yale University, New Haven, Connecticut, studying genetic mechanisms of organ size and tumour formation in the fruit fly <i>Drosophila melanogaster</i>. Dr Stewart's current research focuses on developing new zebrafish models of rare paediatric brain tumours and identifying how embryonic mechanisms of cell migration promote paediatric brain tumour invasion. He is also interested in the discovery of new paediatric cancer therapeutics using drug screens in zebrafish tumour models.</p>
11:50 - 12:10	<p>Dr Nick Gottardo Princess Margaret Hospital for Children/Telethon Kids Institute <i>'From bench to bedside; Translating cell cycle checkpoint kinase inhibitors into the clinic for children with medulloblastoma'</i></p> <p>Dr Nick Gottardo is a clinician/scientist based in Perth, Western Australia. He is a paediatric oncologist/neuro-oncologist and Head of the Department of Paediatric Oncology and Haematology at Perth Children's Hospital. He is also the Co-leader of the Brain Tumour Research Programme at the Telethon Kids Institute. He undertook his neuro-oncology fellowship at St Jude Children's Research Hospital, where he developed extensive experience in mouse model generation and preclinical testing. The Brain Tumour Research Programme focuses on testing novel therapies using mouse model systems that more closely recapitulate the human disease, in order to test the effectiveness of new treatments for childhood brain tumours, so that the most promising therapies can be taken through to the clinic.</p> <p>Nationally, Dr Gottardo is the Deputy Chair of the Australian and New Zealand Children's Haematology/Oncology Group and Chair of the CNS Tumour Sub-group of ANZCHOG. He is the Study Chair of the AIM-BRAIN PROject (Access to Innovative Molecular diagnostic PROFiling) for paediatric brain tumours. This trial will develop a personalised molecular classification protocol, using state-of-the-art technologies, to molecularly fingerprint brain tumours for all children in Australasia.</p> <p>Internationally, he is the Study Chair of the Children's Oncology Group's front-line clinical trial for WNT subgroup medulloblastoma patients, which investigates therapy reduction for this subgroup of patients who have excellent survival on current therapy. He is also a member of the International Medulloblastoma Working Group.</p>
12:10 - 12:30	<p>Professor Michelle Haber Children's Cancer Institute <i>'Zero Childhood Cancer: Comprehensive precision medicine for high-risk child cancer patients'</i></p> <p>Prof Michelle Haber is Executive Director of Children's Cancer Institute, and Head of the Experimental Therapeutics Program. She is internationally recognised for her world-class research into the treatment of neuroblastoma and ALL in children, working towards more effective treatments for individual childhood cancers by identifying molecular targets that drive the growth and development of cancer in children, developing new drugs to inhibit the action of these targets, and combining existing and new drug treatments into novel therapeutic approaches that can be rapidly translated into national and international clinical trials. In 2014, Prof Haber was awarded the Cancer Institute NSW Premier's Award for Outstanding Cancer Researcher of the Year and in 2015 was appointed a Fellow of the Australian Academy of Health and Medical Sciences. In 2017 and again in 2018, she was one of three Finalists for the CSIRO Eureka Prize for Leadership in Innovation and Science. She has a long and continuous record of peer-reviewed grant funding and an excellent track record >180 journal publications. She leads the Zero Childhood Cancer national child cancer personalised medicine program, which is enabling all newly-diagnosed, high-risk childhood cancer patients in Australia, and all children who relapse following treatment, to have their therapy tailored to the specific genetic and biological characteristics of their individual tumour.</p>

12:30 - 12:50	<p>Professor Tracey Danaher Children's Cancer Foundation <i>'The parent perspective'</i></p> <p>Prof Tracey Danaher is the mother of Zac, who was diagnosed in 2015 with a Choroid Plexus Carcinoma at 4 years of age. At 7 he is being treated for a second relapse of his cancer. In addition to being Zac's mother, Tracey is a Professor at Monash Business School. Her research is interdisciplinary merging psychology, marketing, analytics, and economics in retail and service contexts, including health care. Tracey was previously the Academic Director of the Australian Centre for Retail Studies at Monash University, holds several Australian Research Council Grants, and has published extensively. Since Zac's diagnosis she has published articles and commentaries in <i>Journal of Clinical Oncology</i>, <i>Oncology Practice</i> and <i>Mayo Clinic Proceedings</i>.</p>
12:50 - 2:00	LUNCH
SESSION 3 Clinical Applications of Genomics Data Chaired by Dr Peter Downie	
2:00 - 2:40	<p>Assistant Professor Adam Resnick Children's Brain Tumor Tissue Consortium <i>'Kids First Data Resource Center: Emerging platforms for collaborative data-driven discovery on behalf of children'</i></p> <p>Dr Resnick's research is focused on cell signalling cascades and their alterations in paediatric brain tumours. The goal of his laboratory is to elucidate the molecular and genetic underpinnings of paediatric brain tumours in an effort to identify and develop targeted therapies. Building on his training in the neurosciences, Dr Resnick's laboratory has undertaken efforts to characterise the molecular mechanisms 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.</p> <p>Dr Resnick is currently the scientific chair of two consortia, CB TTC and Pacific Pediatric Neuro-Oncology Consortium (PNOC), respectively dedicated to biospecimen-driven data generation and precision medicine clinical trials.</p>
2:40 - 3:20	<p>Professor Stefan Pfister Hopp Children's Cancer Center Heidelberg (KiTZ) <i>'Next-generation pediatric neurooncology'</i></p> <p>Prof Stefan Pfister serves as Director of the Preclinical Research Program of the new Hopp Children's Cancer Research Center at the NCT Heidelberg (KiTZ), a joint venture between the German Cancer Research Center (DKFZ) and Heidelberg University Hospital. He has headed the Division of Pediatric Neurooncology at the German Cancer Research Center (DKFZ) since 2012. Being a paediatrician by training, Prof Pfister received his MD from Tübingen University, and his clinical education at Mannheim and Heidelberg University Hospitals. As a physician-scientist, he completed postdoctoral fellowships with Christopher Rudd at the Dana-Faber Cancer Institute/Harvard Medical School, and with Peter Lichter at the German Cancer Research Center, Division of Molecular Genetics. Prof Pfister's research focuses on the genetic and epigenetic characterisation of childhood brain tumours by applying next-generation profiling methods, the development of faithful models and functional validation of findings, and the preclinical testing of new treatment options using these models. In all his activities, translating novel findings into a clinical context is of highest priority. For his translational neurooncology projects, Prof Pfister received amongst others the German Cancer Award in 2012.</p>

3:20 - 4:00	<p>PANEL DISCUSSION</p> <p>Chairs Professor Bryan Williams Hudson Institute of Medical Research Dr Peter Downie Monash Children's Hospital</p> <p>Panel Members Professor Martine Roussel St Jude Children's Research Hospital Associate Professor Rodney Stewart Huntsman Cancer Institute, University of Utah Assistant Professor Adam Resnick Children's Brain Tumor Tissue Consortium Professor Stefan Pfister Hopp Children's Cancer Center Heidelberg (KITZ) Professor Tracey Danaher Children's Cancer Foundation</p>
4:00	<p>NETWORKING DRINKS AND CANAPÉS Sponsored by Children's Cancer Foundation</p>