

2018 Accelerator Grant Awardees

	Project Title	Investigator(s)¹	Institution(s)²
01	Whole Genome sequencing for stratification in clinical trials in Autism Spectrum Disorder	Evdokia Anagnostou (PI) Rob Nicolson Terry Bennet Jacob Vorstman	Bloorview Research Institute Western University McMaster University The Hospital for Sick Children
02	Epilepsy Genomics Discovery	Danielle Andrade (PI) Ryan Yuen Evdokia Anagnostou Jacob Vorstman	University Health Network The Hospital for Sick Children Bloorview Research Institute
03	Optimized whole genome sequencing analysis of complex disease in a 22q11.2 deletion model	Anne Bassett (PI) Daniele Merico Christian Marshall Gregory Costain Ryan Yuen Erik Boot Elemi Breetvelt Jacob Vorstman Chelsea Lowther	Centre for Addiction and Mental Health The Hospital for Sick Children University of Toronto University Health Network Massachusetts General Hospital Deep Genomics
04	Developing and evaluating an e-genetic counselling application for the selection of incidental genomic sequencing results	Yvonne Bombard (PI) Andreas Laupacis Adena Scheer Nancy Baxter Jordan Lerner-Ellis Raymond Kim Christine Elser Andrea Eisen France Legare Intan Schrader	St. Michael's Hospital Sinai Health System University Health Network Sunnybrook Research Institute Université Laval British Columbia Cancer Agency
05	The Molecular Landscape of Aggressive Localized Prostate Cancer in Obese Men	Paul Boutros (PI) Neil Fleshner Michael Fraser Theodoros van der Kwast	Ontario Institute for Cancer Research University Health Network
06	Rapid Antimicrobial Resistance Prediction Using Point-of-care Sequencing and K-mer Analysis	Bryan Coburn (PI) Derek MacFadden Samira Mubareka Nick Daneman Roberto Melano Samir Patel Allison McGeer William Hanage	University Health Network Sunnybrook Research Institute Public Health Ontario Sinai Health System Harvard T H Chan School of Public Health
07	A resource of healthy iPSCs derived from the Personal Genome Project of Canada	James Ellis (PI) Seema Mital Binita Kamath	The Hospital for Sick Children
08	Deep convolutional neural networks for genome and brain-wide molecular neuroanatomy	Leon French (PI) Jason Lerch Sean Hill	Centre for Addiction and Mental Health The Hospital for Sick Children
09	In silico anti-microbial prediction through deep learning	Saravanamuttu Gnaneshan (PI) Frances Jamieson Jonathan Gubbay Vanessa Allen Samir Patel George Broukhanski Lennon Li	Public Health Ontario

10	Generation of a high-quality woodchuck draft genome to support clinical use of the woodchuck model of virus-induced hepatocellular carcinoma	Sonya MacParland (PI) Si Lok Gary Bader Ian McGilvray Thomas Michalak	University Health Network The Hospital for Sick Children University of Toronto Memorial Univ. of Newfoundland
11	Harnessing multi-omics to deliver innovative diagnostic care for rare genetic diseases in Canada (C4R-SOLVE)	Christian Marshall (PI) Michael Brudno James Dowling Robin Hayeems Kym Boycott	The Hospital for Sick Children Children's Hospital of Eastern Ontario
12	Influenza virus ecology at the human-animal interface; predicting cross-species barriers, transmission and emergence	Samira Mubareka (PI) Yohannes Berhane Shawn Babiuk Oliver Lung Harold Kloeze Shamir Mukhi David Fisman Robert Kozak	Sunnybrook Research Institute University of Toronto Public Health Agency of Canada Canadian Food Inspection Agency National Centre for Foreign Animal Disease
13	INSIGHT into Steroid Response in Childhood Nephrotic Syndrome	Rulan Parekh (PI) Andrew Paterson	The Hospital for Sick Children
14	Quantifying Somatic Genomic Variation in Autosomal Dominant Polycystic Kidney Disease	York Pei (PI) Matthew Lanktree Andrew Paterson	University Health Network The Hospital for Sick Children
15	Towards early detection of cancer in high-risk patients through genome and epigenome profiling of circulating tumour DNA	Trevor Pugh (PI) Raymond Kim Jordan Lerner-Ellis Daniel De Carvalho Scott Bratman	University Health Network Sinai Health System
16	Whole genome sequencing of gene-negative hypertrophic cardiomyopathy families	Harry Rakowski (PI) Arnon Adler Mohsen Hosseini Rebekah Jobling Raymond Kim Eriskay Liston Roozbeh Manshaei Miriam Reuter Josh Silver	University Health Network Sinai Health System The Hospital for Sick Children Ted Rogers Centre for Heart Research
17	Detecting Clinically Relevant Mutational Signature in Cancer Genomes by Deep Learning	Adam Shlien (PI) David Malkin Marc Fiume	The Hospital for Sick Children DNastack
18	Advancing Somatic Cancer Clinical Molecular Diagnostics with Artificial Intelligence	Tracy Stockley (PI) Suzanne Kamel Reid Natasha Leighl David Malkin Andre Schuh Adam Shlien Natalie Stickle Anita Villani Carl Virtanen	University Health Network The Hospital for Sick Children
19	Identifying novel dystonia-associated genes through detection of de novo mutations using whole genome sequencing	Ryan Yuen (PI) Teesta Soman	The Hospital for Sick Children

¹ Bold indicates Lead or Co-Lead Principal Investigator (PI)

² Bold indicates Lead Institution