McLAUGHLIN CENTRE

UNIVERSITY OF TORONTO

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 Theodorus 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