McLAUGHLIN CENTRE

UNIVERSITY OF TORONTO

# 2019 Accelerator Grant Awardees

| | Project Title | Investigator(s)[1] | Institution(s)[2] |
|---|---|---|---|
| 01 | **Whole Genome sequencing for stratification in a multisite randomized controlled trial of Arbaclofen vs placebo in Autism Spectrum Disorder** | **Evdokia Anagnostou (PI)**<br>Rob Nicolson<br>Julia Frei<br>Muhammad Ayub<br>Jacob Vorstman<br>Kristiina Tammimies | **Bloorview Research Institute**<br>Western University<br>McMaster University<br>Queen's University<br>The Hospital for Sick Children<br>Karolinska Institute |
| 02 | **Monogenic and Polygenic Etiologies in Adult-onset Focal and Segmental Glomerulosclerosis (FSGS)** | **Moumita Barua (PI)**<br>Andrew Paterson<br>Michelle Hladunewich | **University Health Network**<br>The Hospital for Sick Children<br>Sunnybrook Research Institute |
| 03 | **Whole genome sequencing and genetic architecture of tetralogy of Fallot** | **Anne Bassett (PI)**<br>Daniele Merico<br>Christian Marshall<br>Gregory Costain<br>Robbie Davies<br>Candice Silversides | **Centre for Addiction and Mental Health**<br>Deep Genomics<br>The Hospital for Sick Children<br>University of Toronto<br>University of Oxford<br>University Health Network |
| 04 | **Whole genome sequencing to discovery variants contributing to extreme adult obesity and its response to bariatric surgery** | **Satya Dash (PI)**<br>Andrew Paterson | **University Health Network**<br>The Hospital for Sick Children |
| 05 | **Whole Genome Sequencing in Childhood Moyamoya** | **Nomazulu Dlamini (PI)**<br>Richard Wintle<br>Cheryl Jaigobin | **The Hospital for Sick Children**<br>University Health Network |
| 06 | **A Genetic Risk Score for Atrial Fibrillation** | **Michael Gollob (PI)**<br>Guillaume Pare | **University Health Network**<br>McMaster University |
| 07 | **Genome-wide cell-free DNA methylation enrichment and sequencing for preeclampsia diagnosis** | **Michael Hoffman (PI)**<br>Samantha Wilson<br>Daniel De Carvalho<br>Howard Berger | **University Health Network**<br>St. Michael's Hospital |
| 08 | **Harnessing multi-omics to deliver innovative diagnostic care for rare genetic diseases in Canada (C4R-SOLVE)** | **Christian Marshall (PI)**<br>Michael Brudno<br>James Dowling<br>Robin Hayeems<br>Kym Boycott | **The Hospital for Sick Children**<br>Children's Hospital of Eastern Ontario |
| 09 | **Development of an Integrative clinical-genomic prediction model in hereditary thoracic aortic disease** | **Maral Ouzounian (PI)**<br>Raymond Kim<br>Eriskay Liston<br>Cedric Manlhiot<br>Bo Wang<br>Roozbeh Manshaei<br>Jillian Murphy<br>Hanna Faghfoury<br>John Okello<br>Miriam Reuter | **University Health Network**<br>The Hospital for Sick Children<br>Mount Sinai Hospital |
| 10 | **Using Whole Genome Sequencing to Understand the Role of Variants of Unknown Significance in Neurodevelopmental Phenotypes in the General Population** | **Russell Schachar (PI)**<br>Jennifer Crosbie<br>Evdokia Anagnostou<br>Christie Burton<br>Paul Arnold | **The Hospital for Sick Children**<br>Bloorview Research Institute |

| | | | |
|---|---|---|---|
| 11 | **Using polygenic risk score to identify psychiatric patients at-risk for cardiovascular and metabolic disorders** | **Arun Tiwari (PI)**<br>Gwyneth Zai<br>Clement Zai<br>Jim Kennedy<br>Margaret Richter | **Centre for Addiction and Mental Health**<br>Sunnybrook Research Institute |
| 12 | **Modeling Polygenic Variation to Improve Prediction of Cognitive Outcomes of Pathogenic CNVs** | **Jacob Vorstman (PI)**<br>Robbie Davies<br>Christian Marshall<br>Elemi Breetvelt<br>Anne Bassett<br>Lucy Osborne<br>Ania Fiksinski<br>Sebastian Jacquemont | **The Hospital for Sick Children**<br>University of Toronto<br>University of Montreal<br>University of Oxford<br>University Medical Center Utrecht<br>Centre for Addiction and Mental Health |
| 13 | **Defining Epigenomic Variation in Healthy Children in the Context of Whole Genome Sequences** | **Rosanna Weksberg (PI)**<br>Ryan Yuen<br>Lisa Strug<br>Michael Brudno | **The Hospital for Sick Children** |
| 14 | **Genome-wide detection of repeat expansions** | **Ryan Yuen (PI)**<br>Christopher Pearson | **The Hospital for Sick Children** |
| 15 | **A unified polygenic risk score analytics platform for risk prediction, causal inference and discovery** | **France Gagnon (PI)**<br>**Lei Sun (PI)**<br>Vanessa Goncalves<br>Laurent Briollais<br>Linbo Wang<br>Andrew Paterson<br>Shelley Bull<br>Lisa Strug<br>Dehan Kong<br>Qiang Sun<br>Jennifer Brooks | **University of Toronto**<br>Mount Sinai Hospital<br>The Hospital for Sick Children<br>Centre for Addiction and Mental Health |

[1] Bold indicates Lead or Co-Lead Principal Investigator (PI)
[2] Bold indicates Lead Institution