

Hosted by Cellular & Molecular Synaptic Function Unit

## Speaker: Dr. Elizabeth Theriault

Vice President, Research and Informatics at the Ontario Brain Institute, Toronto, Ontario

DATE: Tuesday, February 14

TIME: 16:00 - 17:00

VENUE: Meeting Room D014, Level D, Lab 1

## Title:

" Developing a Learning Healthcare System: The Ontario Brain Institute Model "

The Ontario Brain Institute (OBI) is a provincially funded, not-for profit research institute that provides long-term programmatic funding for patient-focused neuroscience research that integrates industry, researchers, clinicians and patients. OBI is not a standard research institute: first of all, OBI doesn't duplicate the funding provided by other agencies, like the Canadian Institutes of Health Research, the Medical Research Council, or the National Institutes of Health and we actively manage and influence how the research is done, actively breaking down silos and catalyzing collaboration within and across more than 40 institutions. The current Integrated Discovery Programs (IDPs) include neurodegeneration, epilepsy, cerebral palsy, depression and neurodevelopmental disorders, with a new program being developed in concussion. All IDPs collect standardized data sets across neuroimaging, clinical, proteomic, genomic and other platforms, and upload these data into Brain-CODE, an extensible informatics platform that manages the acquisition, storage, processing and analytics of these multidimensional data. These data are then used to facilitate innovative, hypothesis-driven investigation and data-driven discovery approaches both across data modalities and across disorders. Brain-CODE is able to federate with a number of provincial, national and international databases providing an opportunity to develop a 'learning healthcare system'. Integrated Discovery also describes the process

of creating convergent partnerships with clinicians, researchers, industry and the patient community to support knowledge exchange, enhance clinical impact, and foster the integration of patients and industry to rapidly translate discovery into impactful products. OBI has been very successful in developing a neurotechnology cluster, in part by fostering the development of HQP through training programs and by supporting early stage entrepreneurs: over the last five years we have supported 56 portfolio companies in the areas of devices, therapeutics and software/informatics. Finally, each Integrated Discovery Program has established a patient advisory committee (PAC), made up of representatives from advocacy groups, people with lived experience, and their care partners or advocates. The PACs ensure the relevance of the research and facilitate knowledge translation and dissemination of research through partner advocacy organizations.

## Biography:

After obtaining a PhD in neurosciences from McMaster University, Dr. Elizabeth Theriault completed postdoctoral studies at Harvard Medical School. From 1985-1999 she worked as a research scientist at the University of Toronto, principally in the area of neurotrauma and neuroprotection. In 1999, she was appointed Dean, Science and Technology, and the first Director of Research at Sheridan Institute of Technology and Applied Learning in Oakville, Ontario. In 2003, Theriault was seconded by the federal government to the Canadian Embassy in Tokyo as one of six dedicated Science and Technology Counsellors around the world who represent Canada in key OECD countries. From 2009-2016 she was the Assistant Scientific Director for the Canadian Institutes of Health Research - Institute of Neurosciences, Mental Health and Addiction, based at UBC in Vancouver. Dr. Theriault is currently Vice President, Research and Informatics at the Ontario Brain Institute in Toronto, Ontario.

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