



Shawn T. Brown, PhD



Dr Shawn Brown is the **Associate Director for Research Software Development** for the [McGill Centre for Integrative Neuroscience](#) (MCIN) at the Montreal Neurological Institute and Hospital (the Neuro) and for the [Healthy Brains for Healthy Lives](#) analytic platform, NeuroHub, at McGill University.

Ambitious and innovative, [NeuroHub](#) is a neuroinformatics and computational modelling platform that will enable the analysis and integration of diverse and complex datasets from different sources, using cutting-edge methodologies from data science, cloud computing, and high-performance computing.

Dr Brown is also the **Chief Software Architect** for the [CBRAIN](#) platform, a web-based software developed by the MCIN team that allows neuroscientists to perform computationally intensive data analyses by connecting them to high-performance-computing facilities across Canada and around the world. MCIN also leads the development of the neuroinformatics pillar of the **Ludmer Centre for Neuroinformatics & Mental Health**, a multicenter big-data approach to research in normal brain development, neurological disorders, and mental illnesses.

Dr Brown has contributed to a number of innovative [research publications](#) in neuroinformatics and computational modelling as well as large-scale neuroinformatics initiatives. He is currently supporting the development and rollout of Canada's first national neuroscience platform, the Canadian Open Neuroscience Platform (CONP), and the establishment of neuroinformatics research capacities in Asia as part of the Canada-Cuba-China (CCC) Initiative.

Prior to joining McGill, Dr Brown was the **Director of Public Health Applications** (2012-2017) at the Pittsburgh Supercomputing Center (PSC), a high-performance computing facility operated jointly by the Carnegie Mellon University and the University of Pittsburgh together with Westinghouse Electric Company. Over 12 years and in multiple positions at PSC (2005-2017), Dr Brown led a team of developers, scientists and modelers in research spanning agent-based modeling of public health systems, obesity prevention, and the mitigation of infectious disease spread. This included work on supply-chain modeling for vaccines, agri-food and other public health commodities in low-to-middle-income countries, as well as the development of computational infrastructure to advise public health decision-making.

During the 2009 H1N1 influenza pandemic, Dr Brown provided vital decision-making support through modeling and advice on pandemic response to a number of American government services. He also led workshops with partners in Vietnam, Senegal, Thailand, and Benin on using computational modeling for strengthening vaccine supply chains and the introduction of new vaccines in developing countries.

An expert in scientific simulation and modeling, Dr Brown received a BSc from Bethany College (1997) and a PhD in Chemistry from the University of Georgia (2001). He worked for Q-Chem Inc. (2001-2005) before moving to the Pittsburgh Supercomputing Center (2005-2017). Concurrent to the latter, he was also a Research Associate and Assistant Professor of Biostatistics in the Graduate School of Public Health at the University of Pittsburgh (2010-2012).