TRANSFORMING BRAIN RESEARCH

The brain is the last frontier in human biology. It is what makes us human. One in three Canadians will be affected by a neurological or psychiatric disease, disorder or injury at some point in their lives.

Under BrainsCAN, cognitive neuroscientists, psychiatrists, neurologists, physiologists, philosophers, physicists, engineers and computer scientists are working together to radically transform how brain disorders are understood, diagnosed and treated.

Our cognitive neuroscience focuses on the challenge of understanding how the neurobiology of the brain leads to the complexities of the human mind: how the brain allows us to perceive the world, choose goals, plan and carry out actions, form memories and communicate our thoughts.

Our strength in neuroimaging is enhancing our ability to diagnose debilitating neurological disease and mental disorders, from improving brain surgery to tackling problems in education, such as the early identification of learning disabilities.

Our expertise with computational models is an essential link for understanding how neural activity measured with, for example, imaging or electrophysiology, informs us about how brain function leads to cognition.

Our innovations in assessing animal behavior are key to developing preclinical models of developmental disorders or neurodegenerative and neuropsychiatric disease that truly reflect human behavioral deficits and human brain circuits.

BrainsCAN is led by Co-Scientific Directors, Dr. Lisa Saksida, Dr. Ravi Menon and Executive Director, Fay Harrison.

Learn more at brainscan.uwo.ca