CTRN's mission is to coordinate and promote the development of neuroscience and mental health research while training the next generation of scientists in this broad field of knowledge.

CENTRE DESCRIPTION

CTRN was the first thematic centre at Université Laval devoted to biomedical research. It gradually evolved from the Brain, Behaviour, and Neuropsychiatry Research Centre (CRCN, initially affiliated with the Mental Health University Institute of Quebec (IUSMQ)) into a centre wholly dedicated to neuroscience and mental health research. CTRN now coordinates the activities of 45 researchers working in various sectors of the Université Laval network, primarily IUSMQ and the University Hospital Centre (CHU).

CTRN scientists are active in the main areas of basic neuroscience research, including neurophotonics, as well as in various clinical disciplines related to neurology, neurosurgery, rehabilitation, psychology, and psychiatry. The international calibre of their work and their close supervision of nearly 200 students and postdoctoral fellows makes CTRN an outstanding choice for students.

CTRN provides members with an intellectually stimulating research environment and access to the latest high-tech equipment. It brings together Université Laval’s most productive neuroscientists, whose research domains extend from the study of basic neuronal components in animals to the functional organization of the human brain.

CTRN offers world-class training and extensive support to students from a broad range of backgrounds.

CTRN director: André Parent, Faculty of Medicine

MISSION

45 researchers
60 research professionals
200 students
Frédéric Calon and Thérèse de Paolo among the top ten discoveries of the year in 2011 and 2012, respectively. In 2012 Michel Maziade was appointed to the National Order of Quebec and Jean-Pierre Julien received the Queen Elizabeth II Diamond Jubilee Medal. Also in 2012, Martin Beaulieu received the Canadian College of Neuropsychopharmacology’s Young Investigator Award. These achievements, contributions, and recognitions clearly speak to the quality and relevance of the research conducted at CTRN over the past two years.

Although still young, this research centre has quickly established itself as a driving force in neuroscience and mental health research in Quebec and around the world. Over the past two years, CTRN scientists published an average of 100 articles per year in leading scientific journals, some in such highly reputed publications as Cell, Nature and Neuron, where they enjoyed international visibility and generated numerous citations. CTRN researchers were also invited to speak at many international conferences, presenting no less than 200 scientific papers each year, co-authored with their students. CTRN researchers organized their own events as well, attracting scientists from around the world. Several CTRN members were recognized with awards and distinctions. For example, the magazine Québec Science listed the work performed by Yves De Koninck’s team and the teams of

KEY ACHIEVEMENTS

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ADVANTAGES

CTRN offers students an exceptionally stimulating and supportive multidisciplinary training environment. The centre brings together 45 members from the university faculties of Medicine, Science and Engineering, Social Sciences (School of Psychology), and Pharmacy. Researchers supervise nearly 200 students from diverse academic backgrounds who are enrolled in various programs in the Faculty of Graduate Studies. These students have access to a unified body of unique expertise, as evidenced by CTRN scientists’ global reputation for research excellence.

In their work, students draw on technological approaches that harness cutting-edge techniques in different areas of neuroscience, including brain imaging and neuroimaging, molecular and cellular biology, neurophotonics, genetic analysis, electrophysiology, behavioural analysis, deep brain stimulation, and neurocognitive testing. Students also have access to unique animal models and clinically-defined patient populations, allowing them to further their study of nervous system conditions in both animals and humans. CTRN provides various technological platforms to students and researchers, including a human