LUDMER CENTRE FOR
NEUROINFORMATICS & MENTAL HEALTH

Michael Meaney, CM, PhD, CQ, FRSC

Dr. Meaney is a James McGill Professor in the departments of Psychiatry and Neurology & Neurosurgery and the Director of the Sackler Program for Epigenetics & Psychobiology at McGill University. He is a Senior Researcher at the Douglas Mental Health University Institute and an Adjunct Senior Investigator at the Singapore Institute for Clinical Sciences. Dr. Meaney is a thematic lead for McGill's ambitious neuroscience initiative, Healthy Brains for Health Lives, which was awarded $84M under the Canada First Research Excellence Fund in September 2016.

Dr Meaney is also a Scientific Director of the Ludmer Centre for Neuroinformatics & Mental Health, a transdisciplinary, multicenter big-data approach to innovative research in normal brain development and disorders, research encompassing neurological disorders, from Alzheimer's to Parkinson's, and mental illnesses, from anxiety to schizophrenia. He leads the epigenetics and mental health axis.

Dr. Meaney's research uncovered the point where nurture meets nature, providing the first documented evidence of the biological mechanisms through which epigenetic (environmental) factors affect brain development and alter gene expression, confirming epigenetics' vital role in brain development. He continues to lead the two longitudinal birth cohort studies that pioneered this research: the Maternal Adversity, Vulnerability & Neurodevelopment (MAVAN) project, a Montréal-based longitudinal study of paediatric epigenetics, and Growing Up in Singapore Towards healthy Outcomes (GUSTO), Singapore's largest birth cohort study. These studies provide the first datasets worldwide to encompass infant/child neuroimaging, genotyping/epigenotyping, environment conditions and longitudinal assessments of developmental outcomes. He also participates in collaborations with multiple cohort studies across Canada and the USA.

Dr. Meaney and his team seek to develop a detailed, multidimensional picture of what vulnerability to mental illnesses looks like, what confers resilience or risk, and what interventions can help stop these devastating conditions before they take root in adolescence and early adulthood. The founder of the Canadian Neuroepigenetic Network, he is also concerned with translating epigenomic studies into clinical practice and prevention/intervention programs.

A world authority on epigenetics and mental health, Dr. Meaney ranks among the top 1% of highly cited neuroscientists (h-index 102). In 2016, he received the Margolese National Brain Disorders Prize for his pivotal work in epigenetics. In 2014, he was awarded the prestigious Klaus J. Jacobs Research Prize for scientific work of high social relevance in child development, inducted into the Royal Society of Canada, and named a Knight of the National Order of Québec.

Dr. Meaney obtained his BSc (1975) in Psychology/Biology at Loyola College then his MA (1977) in Clinical Psychology and a Doctorate in (1981) Philosophy, Psychobiology at Concordia University. He completed two Post-Doctoral Fellowships, one in neuroendocrinology at The Rockefeller University, New York (1983) and the other in molecular medicine at the University of Edinburg, Scotland (1995, visiting Fellow).