



UConn BIRC Speaker Series

Friday, April 22nd from 1:30-2:45pm EST

Into The Gray Zone: Assessing Residual Cognitive Function in Disorders of Consciousness

Adrian Owen, PhD University of Western Ontario



Abstract: The thought of being ‘locked in’ following a brain injury or aware during general anesthesia troubles us all. What does it mean to be awake, but unable to respond and what can this tell us about consciousness? Unfortunately, the only way we can measure consciousness is through a recognized behavioural response. Rapid technological developments have provided a number of new methods for revealing thoughts, actions and intentions based solely on the pattern of brain activity. We have developed a number of new fMRI techniques for assessing high-level cognition and even conscious awareness, without the need for behavioural response. Starting from this perspective, I will contrast those circumstances in which imaging data can be used to infer awareness in the absence of a reliable behavioural response. This distinction is fundamental for understanding and interpreting patterns of brain activity in various states of consciousness and has profound implications for clinical care, diagnosis, prognosis and medical-legal decision-making after severe brain injury.

Bio: *Adrian M. Owen OBE, PhD is a Professor of Cognitive Neuroscience and Imaging in the Departments of Physiology & Pharmacology and Psychology at the University of Western Ontario, Canada. He directs the Brain, Mind, and Consciousness program and is on the Executive Committee of the CFREF funded initiative BrainsCAN. His research combines structural and functional neuroimaging with neuropsychological studies of brain-injured patients. He is best known for showing that functional neuroimaging can reveal conscious awareness in some patients who appear to be vegetative and can allow some of these individuals to communicate their thoughts to the outside world. These findings have attracted widespread media attention on TV, radio, in print and online. Dr. Owen has played multiple editorial roles, and has published over 360 peer-reviewed articles and chapters and a best-selling popular science book ‘Into the Gray Zone: A Neuroscientist Explores the Border Between Life and Death. Dr. Owen was recently awarded Officer of the Most Excellent Order of the British Empire (OBE) in the Queen’s Honors List, 2019, for services to scientific research.*

Remote access Registration: <https://bit.ly/3Ku24Lb>

*Please note: You *must* register in advance via Zoom*

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