

6th Global Ophthalmologists Annual Meeting

May 16-18, 2016 Osaka, Japan



Stephen G Odaibo

Quantum Lucid Research Laboratories, USA

Cracking the neural code for vision

Every time you look out at a visual scene, the neurons in your visual cortex respond in a certain way. They do so by changing their firing rate in response to the visual scene. Therefore each visual scene is represented in your brain by some specific pattern of neuronal firing. This is the neural code for vision. Understanding this code will potentially mean we can someday enable blind people see by stimulating the brain to represent the visual scene in their line of sight. In this talk, the author will present some background on this problem and will discuss the sub-problem of “cracking the code for visual motion”. In particular, the research results about the behavior of motion-processing neurons in the visual cortex will be discussed. Also, the author will describe how at Quantum Lucid Research Labs, they are beginning to understand the code for neurons which help to see moving objects.

Biography

Stephen G Odaibo is a Nigerian-born Physician, Mathematician, Computer scientist, Neuroscientist, Physicist, and Retina specialist. He won the 2005 Barrie Hurwitz Award for Excellence in Clinical Neurology at Duke University School of Medicine where he topped the class in Neurology. He is Chief Scientist and Founder of Quantum Lucid Research Laboratories, an Independent Computational Research Institute. He is also a Retina specialist at the Medical Associates Clinic in Dubuque Iowa. He obtained a BS in Mathematics (UAB, 2001), MS in Mathematics (UAB, 2002), MS in Computer Science (Duke, 2009), and Doctor of Medicine--MD (Duke, 2010). From 2004 to 2006, he was in the lab studying G-protein coupled receptors with Robert J. Lefkowitz, the 2012 Nobel Laureate in Chemistry. He has published textbooks in advanced Mathematics and Physics. He is author of the book, “*Quantum Mechanics and the MRI Machine*” (Symmetry Seed Books, Oct 2012), and of the book “*The Form of Finite Groups: A Course on Finite Group Theory*” (Symmetry Seed Books, Jan 2016). He has received a number of recognitions and awards.

stephen.odaibo@qlucid.com

Notes: