

Biological Futures

in a GLOBALIZED WORLD

Spring Quarter Colloquium Series

Tom Daniel

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Interim Director, Center for Sensorimotor Neural Engineering (NSF)**

Monday, May 21, 2012

4:00 pm

Communications 202

Neural Engineering: the intellectual and physical interface between technology and life

This talk will review and define the emerging domain of neural engineering. It focuses largely on a multicampus effort aimed at developing technologies that interact with, assist, and are inspired by living nervous systems (<http://www.csne-erc.org>). The effort is supported by a recent grant from the National Science Foundation to create Engineering Research Centers for which we have formed the Center for Sensorimotor Neural Engineering. Its mission is quite broad: developing systems that assist individuals with motor deficits, creating a larger pathway for diverse individuals in STEM disciplines, and building partnerships with the private and international sector. Woven throughout the CSNE are issues and questions about ethical aspects of the amalgamation of living and synthetic systems.

Tom Daniel holds the University Komen Endowed Chair, and is Professor in the Department of Biology, the Department of Computer Science and Engineering, and the Graduate Program on Neurobiology & Behavior. He received his PhD from Duke University (1982) and was the Bantrell Fellow in Engineering Sciences at Caltech (1982-84). He has been on the faculty at the UW since 1984 and has served as Chair of the Department of Biology, Interim Associate Dean of Research and Interim Associate Vice Provost of Research. He is now acting as the Interim Director of the NSF Center for Sensorimotor Neural Engineering, a partnership between UW, SDSU and MIT aimed at developing technologies that are inspired by, interact with, and assist neural systems. He is the recipient of a MacArthur "genius" Fellowship, the UW Distinguished Teaching Award, and the UW Distinguished Graduate Mentor Award. He is on the Board of Directors of the Allen Institute of Brain Sciences and the NSF Mathematical Biosciences Institute. His research focuses on control of movement in animals, from sensory information processing to physics of motion.

For more information on the Biological Futures in a Globalized World initiative, please visit <http://tiny.cc/biological-futures>