



# Theme Keynote Speaker



## Bruce Wheeler, PhD

*Professor and Acting Chair*

*J. Crayton Pruitt Family*

*Department of Biomedical Engineering*

*University of Florida*

*USA*

**Talk title: Can We Forward Engineer a Living Brain?  
Advances Neural Culture Technology**

Bruce Wheeler is Professor and Acting Chair of the Pruitt Family Department of Biomedical Engineering at the University of Florida. From 1980 to 2008 he was with the University of Illinois at Urbana-Champaign, most recently as Professor and Founding and Interim Department Head of the Bioengineering Department. He was also a Professor of Electrical and Computer Engineering and the Beckman Institute, a former Associate Head of ECE, and a former chair of the Neuroscience Program. He is the Editor in Chief of the IEEE Transactions on Biomedical Engineering, President Elect of the IEEE Engineering in Medicine and Biology Society, and a Fellow of the IEEE and AIMBE.

He received the B.S. degree from MIT and later the M.S. and Ph.D. in Electrical Engineering from Cornell. Prof. Wheeler's research interests lie in the application of electrical engineering methodologies, signal processing and microfabrication, to the study of the nervous system, including the microlithographic control of the patterns of growth of neurons in vitro so as to permit stimulation and recording with microelectrode arrays. Hopefully this work will lead to better understanding of the behavior of small populations of neurons and lead to better insights into the functioning of the brain. He also has had involvement in algorithm development for directional hearing aids.

## BIOGRAPHY