The 2019 Visiting Scholar is David Fitzpatrick, PhD
CEO and Scientific Director of the Max Planck Florida Institute

Dr. Fitzpatrick was named Chief Executive Officer and Scientific Director of the Max Planck Florida Institute in Jupiter, Florida, in January, 2011. Prior to his arrival in Jupiter, Dr. Fitzpatrick was the James B. Duke Professor of Neurobiology at the Duke University School of Medicine, Durham, NC, and Director of the Duke Institute for Brain Sciences. His scientific contributions have earned him international recognition as a leader in systems neuroscience, with a focus on the functional organization and development of neural circuits in the cerebral cortex — the largest and most complex area of the brain, whose functions include sensory perception, motor control, and cognition. Dr. Fitzpatrick’s research has played a pivotal role in defining the functional organization of cortical circuits, exploring rules of intracortical connectivity, addressing mechanisms of neural coding, and probing the role of experience in the maturation of cortical circuits. His current research utilizes state-of-the-art in vivo imaging techniques to probe the functional synaptic architecture of circuits in primary visual cortex, defining the circuit mechanisms that build the selective response properties of cortical neurons and the critical role that neural activity plays in the proper maturation of these circuits.

8:30 Coffee, Tea, Juice, Danish, and Bagels (Barchi Library, 140 JMB)
9:00 Introduction: Joshua Gold, PhD, Co-PI, NTG TG
9:10 Erica Korb, PhD, Assistant Professor of Genetics
The chromatin landscape of neuronal function and dysfunction
10:00 Katerina Placek, McMillan Lab
Elucidating heterogeneity in ALS-FTD spectrum disease: Steps towards precision medicine
10:30 Coffee Break

11:00 Barbara Terzic, Zhou Lab
Temporal dissection of CDKL5 deficiency disorder pathophysiology
11:30 Felicia Davatolhagh, Fuccillo Lab
Neurexin1-alpha regulates synaptic efficacy of corticostriatal circuits
12:00 Lunch (Barchi Library, 140 JMB)
1:30 Hannah Shoenhard, Granato Lab
Circuits and genes for sensorimotor decision-making in the larval zebrafish
2:00 Nicole Hernandez, Heath Schmidt Lab
The role of hindbrain GLP-1 signaling in cocaine-seeking behavior
2:30 Marissa Kamarck, Mainland Lab
Identifying key olfactory receptors in odor perception using machine learning
3:00 Kyra Schapiro, Gold Lab
Bump Attractor Networks as a model of spatial decision making in humans and monkeys
3:30 Sarah Reitz, Kelz Lab
Investigating the role of sleep-promoting neurons in isoflurane-induced unconsciousness
4:00 Coffee Break
4:30 Visiting Scholar: David Fitzpatrick, PhD, Max Planck Florida Institute
Functional synaptic architecture of visual cortex
6:00 Dinner, Biomedical Research Building 14th Floor Lounge