

# SCIENCE AT THE EDGE

2016 SEMINAR SERIES

Quantitative Biology Graduate Program | Gene Expression in Development and Disease

**Dr. Rodney Johnson**

**Department of Animal Sciences**

**University of Illinois**

## “Postnatal Iron Deficiency and Neural Plasticity”

**Abstract:** A substantial amount of research demonstrates not only that nutrition affects brain function during development but also that inadequate provision of a key nutrient such as iron early in life can result in long-lasting behavioral and cognitive deficits. A working hypothesis is that iron deficiency in an early sensitive period alters the trajectory of brain development thereby everlastingly affecting structural and functional plasticity of the brain. This presentation will explore this issue in the context of stress resilience and highlight recent findings from a neonatal piglet model showing how early post-natal iron deficiency effects brain structure and function.

**Biography:** Dr. Rodney Johnson is a professor of integrative immunology and behavior in the University of Illinois Department of Animal Sciences and Director of the Division of Nutritional Sciences. His research investigates how perinatal infection, nutrition, and birth weight affect brain and cognitive development; and how aging results in neuroinflammation and deterioration of brain health. Johnson has published over 125 peer reviewed papers and is a University Scholar. Johnson earned a B.S. from Truman State University and a M.S. and Ph.D. from the University of Illinois. After post-doctorate training at Iowa State University, he joined the University of Illinois faculty in 1993.

**FRIDAY, January 15, 2016**

**ROOM 1400 BPS**

*Refreshments at 11:15*