The Psychology Department in the College of Science presents a colloquium by

Dr. Ana Daugherty
Beckman Institute for Advanced Science and Technology, University of Illinois at Urbana-Champaign

Brain Iron Accumulation as a Harbinger of Neural and Cognitive Decline in Aging

Progressive declines in brain health and cognitive function are common in human aging, with the pace of change varying across brain regions and among individuals. Multiple factors shape trajectories of cognitive change across the lifespan, including deterioration of mitochondrial energetic processes, oxidative stress, and chronic neuroinflammation. While aging is a multifarious process, these precursors to age-related frailty have at least one thing in common: their association with the action, flow and accumulation of iron. Accumulation of brain iron accounts for regional brain shrinkage and declines in learning and memory functions that are typical in aging. Further, age-related deterioration of vascular health exacerbates the rate of iron accumulation that in turn explains steeper declines in brain structure and function. Thus, brain iron accumulation that is detectable on MRI is a promising biomarker of impending decline and offers a potential avenue for intervention to promote cognitive maintenance into senium.

Monday, November 28, 2016 at 4pm
Refreshments served at 3:45
90 Snell Library