

CENTER FOR EXCELLENCE in the NEUROSCIENCES



S E M I N A R S E R I E S

D-serine and cognition

Alo Basu, Ph.D.

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College of the Holy Cross
Worcester, Massachusetts

Thursday, April 2nd 2015

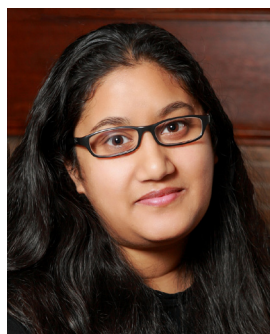
12:00-1:00 p.m.

Alfond 304
UNE, Biddeford Campus

Lunch will be provided

Hosted by: Geoff Ganter, Ph.D.

Sponsored by: The Center for Excellence in the Neurosciences



Dr. Alo Basu grew up near Washington, D.C. and moved to the Boston area to double-major in Biology and Brain and Cognitive Sciences at MIT, and then pursue her Ph.D. in the Department of Neurobiology at Harvard Medical School. After a subsequent post-doctoral fellowship in the Laboratory of Psychiatric and Molecular Neuroscience at McLean Hospital, in 2011 Dr. Basu became a tenure track Assistant Professor in the Department of Psychology at the College of the Holy Cross in Worcester, MA.

Dr. Basu is currently researching the role of D-serine. A relatively novel signaling molecule in the nervous system: D-serine was discovered in mammalian brain tissue less than 30 years ago. It has an atypical chiral conformation for an endogenous amino acid. Its molecular target is the NMDA receptor, an excitatory neurotransmitter receptor that is necessary for many forms of learning and memory by virtue of its function as a coincidence detector at neuronal synapses. Furthermore, genes that regulate D-serine levels have been implicated in disorders and diseases of the nervous system including schizophrenia, bipolar disorder, and ALS. We have established a genetically engineered strain of mice through which we investigate the role of D-serine in cognition.