

The University of Hong Kong
Department of Psychology

Departmental Seminar

Decision making and learning in the corticostriatal system

Date: June 6, 2012 (Wednesday)
Time: 11:30 a.m. to 12:30 p.m.
Venue: Room 624, Knowles Building, HKU
Speaker: Dr. Carol Seger
Department of Psychology
Colorado State University
U.S.A.

The corticostriatal system is a recurrent network connecting basal ganglia with cortex through which the basal ganglia exert a plastic modulatory influence on cortical representations. Corticostriatal networks participate in a broad variety of cognitive processes, including executive functions, decision making, response selection, and sequence and syntax processing. I will discuss several recent studies from my laboratory exploring the roles played by corticostriatal systems during category learning tasks. I will address how dopamine mediated plasticity within the corticostriatal system allows for continuous learning, which I will illustrate with studies using reinforcement learning approaches to model brain activity during category learning. If time permits, I will conclude with a discussion of how the corticostriatal system is involved in syntactic processing in music perception.