



The Search Committee for the Faculty Position in Behavioral Neuroscience invites you to attend a Research Seminar:

Presented by

**Daphne Bavelier**

(Candidate for a faculty position in the School of Education)

## **“Action Video Games as Exemplary Learning Tools”**



From chatting on the internet to playing video games, technology has invaded all aspects of our lives. For better or for worse, it is changing who we are. But can we harness technology to effect changes for the better? In the midst of reported negative effects, recent studies show that this might indeed be the case. In a surprising twist, an often-decried activity such as playing action video games enhances various sensory, attentional and cognitive skills. A training regimen whose benefits are so broad is unprecedented and provides a unique opportunity to identify factors that underlie generalization of learning and principles of brain plasticity. A set of common mechanisms are hypothesized to be at the source of this wide range of skill improvement. In particular, performance improvement following action video game play may be mediated through greater attentional control, better statistic inference in neural networks and in turn an enhanced ability at learning to learn. Practical applications from education to rehabilitation will be discussed.

Daphne Bavelier is an expert on how humans learn. In particular, she studies how the brain adapts to changes in experience, either by nature - for example, deafness - or by training - for example, playing video games. Initially trained in Biology at the 'Ecole Normale Supérieure de Paris', she then received a PhD in Brain and Cognitive Sciences from MIT and trained in human brain plasticity at the Salk Institute. Her work shows that playing fast-paced, action-packed entertainment video games typically thought to be mind-numbing actually benefits several aspects of behavior. Exploiting this counter-intuitive finding, her lab now investigates how new media, such as video games, can be leveraged to foster learning and brain plasticity.

**Friday, October 5<sup>th</sup>, 2012**

**12:00 – 1:00 p.m.**

**CERAS 100B**

Lunch will be provided; please arrive 10 minutes early.