



**University of  
Zurich** <sup>UZH</sup>

## Department of Economics – Neuroeconomics Seminar

**May 16, 2024 - 17:00 - 18:00**

David Redish  
University of Minnesota

### **The neuroscience of multiple decision systems: From rats to neuroeconomics and psychiatry**

I will start with our work putting deliberative (planning through episodic future thinking) and procedural (habit, cached-action) systems into conflict, which allowed us to open up the neurophysiological mechanisms underlying their computations. We will explore interacting circuits of prefrontal cortex, hippocampus, dorsolateral striatum, and nucleus accumbens. Then I will show how this computational perspective provides a new microeconomic model and suggests consequences of that new microeconomic model. I will show that the treatment of addiction through contingency management works better than expected and, using that computational understanding of the neurophysiology of decision making, provide a hypothesis as to why.