

## SÉMINAIRES SCIENTIFIQUES HEBDOMADAIRES

# Jacqueline Gottlieb, Ph. D.

Professor

Department of Neuroscience, The Kavli Institute for Brain Science  
Mortimer B. Zuckerman Mind Brain Behavior Institute  
Columbia University

## *Uncertainty, reward and information demand*

**Vendredi 11 février 2022**

12 h à 13 h

ID de réunion : 880 6617 3443

Mot de passe : 012955

[Lien zoom](#)

### Field of specialization:

The goal of my research is to understand the neural mechanisms that underlie the control of attention and its relation with decision making. Attention and decision making have been studied in countless studies in many species and experimental paradigms, but we have a limited understanding of how they are related. What role does attention play in decision making? What motivates us to attend to different sensory inputs in different contexts, and what do our brains aim to accomplish when they focus attention? Our laboratory investigates these questions using behavioral, computational and neurophysiological tools. My working hypothesis is that attention plays a key role in information seeking, and as such, is specialized for detecting sensory inputs that promote learning and/or reduce uncertainty about relevant items. Using behavioral and computational approaches, I have developed and continue to develop new paradigms for measuring information seeking in humans and non-human primates. Using neurophysiological techniques in humans and monkeys, I investigate the basis of attentional recruitment in relation to task contingencies in areas implicated in cognitive control. These studies probe the intricate relationships between cognition – our ability to make sense of the world - and decisions – our ability to act in the world. These interactions are at the root of all complex behavior and deciphering them has broad relevance for many psychiatric disorders, most notably autism, attention deficit/hyperactivity disorder, drug addiction, schizophrenia and depression.

**Entrée libre**

Personne-ressource : Becket Ebitz, [r.becket.ebitz@umontreal.ca](mailto:r.becket.ebitz@umontreal.ca)