

# BRAIN & COGNITION SEMINAR

## Roshan Cools

(Donders Institute for Brain, Cognition and Behaviour & Department of Psychiatry, Radboud umc)

**Tuesday**  
**March 8, 2022**  
**12:15 to 13:15**

*“Chemistry of the adaptive mind: lessons from dopamine “*

**Visio conférences Zoom :**  
<https://unige.zoom.us/j/68279722177?pwd=VEdGMDF2SzB1Z2JldUxPcWtJeVJqZz09>  
**Meeting ID: 682 7972 2177**  
**Passcode: 495620**

*Abstract:* The human brain faces a variety of computational dilemmas, including the flexibility/stability, the speed/accuracy and the labor/leisure tradeoff. I will argue that striatal dopamine is particularly well suited to dynamically regulate these computational tradeoffs depending on constantly changing task demands. This working hypothesis is grounded in evidence from recent studies on learning, motivation and cognitive control in human volunteers, using chemical PET, psychopharmacology, and/or fMRI. These studies also begin to elucidate the mechanisms underlying the huge variability in catecholaminergic drug effects across different individuals and across different task contexts