

# Dopaminergic Signaling

Mornings of July 16 and 17 in Room B1

This workshop features talks by leading experimentalists and modelers in the field on

- Distinct subpopulations of dopamine neurons
- Coordinated signaling of populations of dopamine neurons
- Dopamine effects on striatal plasticity
- Novel hypotheses for the role of dopamine in motivation and action selection

This work is significant because of the cognitive, motor and motivational functional circuits that rely on dopaminergic signaling, with implications for disorders like depression, schizophrenia, Parkinson's and addiction.

For questions contact organizer Carmen Canavier ([ccanav@lsuhsc.edu](mailto:ccanav@lsuhsc.edu))

## Tuesday July 16

|             |   |
|-------------|---|
| 9:30-9:55   | <b>Carmen Canavier</b> (LSU Health Sciences Center, New Orleans, USA)<br>"Dynamic diversity underlying pauses and bursting in SNc dopamine neurons"   |
| 10:00-10:25 | <b>Larry Zweifel</b> (University of Washington, Seattle, USA)<br>"Specialized dopamine projection neurons work cooperatively to maximize reward reinforcement"  |
| 10:30-10:55 | <b>Kenji Doya</b> (Okinawa Institute of Science and Technology, Japan)<br>"Possible roles of dopamine in model-free and model-based decision and learning"  |
| 11:00-11:30 | Coffee break  |
| 11:30-11:55 | <b>Denis Zakharov</b> (Higher School of Economics, Moscow, Russia)<br>"Role of VTA GABAergic neurons in high-frequency firing of dopaminergic neuron"   |
| 12:00-12:25 | <b>Martin Vinck</b> (Ernst Struengmann Institute for Neuroscience, in Cooperation with Max Planck Society, Frankfurt, Germany)<br>"Tuning of neuronal interactions in the lateral Ventral Tegmental Area by dopamine sensitivity" |
| 12:30-12:55 | <b>Rebekah Evans</b> (NIH, Bethesda, USA)<br>"A dendrite-specific striatonigral circuit facilitates dopamine rebound"   |

## Wednesday July 17

|             |   |
|-------------|---|
| 9:30-9:55   | <b>Joshua Berke</b> (UCSF, San Francisco, USA)<br>"Dissociable dopamine dynamics for learning and motivation"   |
| 10:00-10:25 | <b>Arif Hamid</b> (Brown University, Providence, USA)<br>"Wave-like spatio-temporal patterns organize dopamine transients into compartmentalized decision-signals"                      |
| 10:30-10:55 | <b>Avrama Blackwell</b> (George Mason University, Washington DC, USA)<br>"The role of dopamine and post-synaptic signaling molecules in synaptic plasticity and relapse to alcohol use" |
| 11:00-11:30 | Coffee Break  |
| 11:30-11:55 | <b>Laurent Venance</b> (Collège de France, Paris, France)<br>"Dopamine-endocannabinoid interactions mediate bidirectional spike timing dependent plasticity in the striatum"            |
| 12:00-12:25 | <b>Jeff Wickens</b> (Okinawa Institute of Science and Technology, Japan)<br>"Timing of dopamine directs synaptic plasticity"  |
| 12:30-12:55 | <b>Eleonora Russo</b> (Central Institute of Mental Health, Mannheim, Germany)<br>"Effects of phasic dopamine in sensory representations and their perceived salience"                   |