

# 8TH ANNUAL NEUROPHOTONICS CENTER SYMPOSIUM 2025

Organized by: Meg Younger and Chris Gabel

## NEUROPHOTONICS ACROSS THE ANIMAL KINGDOM

### AGENDA

8:00 - 9:15 **Breakfast and Welcome**

### SESSION 1: NEURONAL CIRCUITS FOR NAVIGATION AND MOVEMENT

Chair: Brian DePasquale

9:15 - 9:50



**Matthew Lovett-Barron** | U.C. San Diego  
*Neurobiology of Collective Behavior in  
Schooling Fish*

9:50 - 10:25



**Rachel Wilson** | Harvard University  
*Neural Networks for Navigation*

10:25 - 11:00 **Coffee Break**

### SESSION 2: COMBINING NEUROPHOTONICS AND CONNECTOMICS TO STUDY NEURONAL FUNCTION

Chair: Jerry Chen

11:00 - 11:35



**Benjamin Scott** | Boston University  
*EM Connectomics Reveals Tunneling Migration  
of New Neurons in the Adult Songbird Brain*

11:35 - 12:10



**Thomas Clandinin** | Stanford University  
*How Does Connectomics Constrain  
Computation in the Drosophila Visual System?*

12:15 - 2:00 **Lunch and Posters**

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### NOVEL TECHNIQUES: PUSHING THE LIMITS OF NEUROPHOTONICS

#### SESSION 3:

Chair: Mike Wallace

2:00 - 2:35



**Michael Economo** | Boston University  
*Voltage Imaging: Novel Methods and Applications*

2:35 - 3:10



**Aravi Samuel** | Harvard University  
*Optogenetic Biochemistry*

3:10 - 3:40

**Coffee Break**

### NEUROPHOTONICS: BRIDGING MOLECULES, CIRCUITS, AND BEHAVIOR

#### SESSION 4:

Chair: Ian Davison

3:40 - 4:15



**Zoe Donaldson** | U. of Colorado, Boulder  
*Nucleus Accumbens Calcium-Permeable AMPARs Orchestrate Pair Bonding*

4:15 - 4:50



**Silke Sachse** | The Max Planck Institute  
*Odor Coding Strategies in Insects: from Neural Circuits to Behavior*

4:50 - 5:25



**Cori Bargmann** | The Rockefeller University  
*The Mind-Body Problem: Aligning Physiology and Neuronal Function in *C. elegans**

5:30 - 7:00

**Reception and Posters**