



AI-based behavior analysis with LabGym Symposium & Workshop

August 22, 2024

Part 1: Introduction to LabGym and its application (9 am - 12 pm EST)

9:00 am: Welcome: **Carrie Ferrario**, Associate Professor, Department of Pharmacology, and Psychology Department (Biopsychology Area), University of Michigan, Ann Arbor, MI

9:05-9:50 am: Overview of LabGym

Bing Ye, "An AI platform for behavioral analysis: the need for LabGym", Professor, Life Sciences Institute and Dept. Cell and Developmental Biology, University of Michigan, Ann Arbor, MI

Henry Hu, "LabGym essentials: an introduction to its components and usage", Research Investigator, Life Sciences Institute and Department of Cell and Developmental Biology, University of Michigan, Ann Arbor, MI

9:50-10 am: Coffee break

10 am-12 pm: Using LabGym to quantify behavior

10-10:30: **Lezio Soares Bueno**, "Computational ethology for the study of pair bonding in monogamous rodents", Research Investigator, Michigan Neuroscience Institute, Watson Lab, University of Michigan, Ann Arbor, MI.

10:30-11:00: **Hanna Carmon**, "Accurate annotation of rodent behavior in low-resolution videos using LabGym2", PhD Candidate, Tronson & Ferrario Labs, Psychology Department (Biopsychology Area), University of Michigan, Ann Arbor, MI.

11:00-11:30: **Ryan Neff**, "Nuanced Analysis of social recognition behavior in mice", PhD Candidate, Murphy Lab, Molecular & Integrative Physiology, University of Michigan Medical School, Ann Arbor, MI

11:30-12:00: **Théo Ardoin**, "Automatic quantification of behaviour in Japanese macaques using LabGym artificial intelligence" UFR SCIENCES, M1 Biodiversité, Écologie et Évolution, 2ème année de Magistère de biologie, Université Paris-Saclay, Paris, France.

12-1:00: pick up lunch (provided for Part 2 registrants only)

Park 2: LabGym Workshop (1:00 pm - 4:00 pm EST)

Hands on tutorial:

We will provide test examples and walk you through the complete process of using LabGym. You must bring your laptop and can install LabGym from this website:

<https://github.com/umyelab/LabGym> Help with installation is available upon request.

Primary Instructor: Henry Hu, PhD

TAs: Kelly Goss, Rohan Satapathy, Isabelle Baker and Victor Struman from Computer Engineering, Computer Science, and Complex Systems, University of Michigan, Ann Arbor, MI