

Where:

USC Michelson Center for Convergent Bioscience (MCB)
1002 Childs Way, Los Angeles, CA 90089



Registration required:

<https://events.usc.edu/esvp/socalsysbio2023/>

Registration \$40, includes:

parking, coffee, snacks, lunch, reception

More information online at:

socalsysbio.github.io/
SoCalSysBio2023/

Organizers and Planning Committee:

Drs. Adam MacLean and Stacey Finley,
Drs. Geoff Fudenberg and Nicholas Graham

PROGRAM

8:00 Check-in coffee, tea, continental breakfast

8:40 **Stacey Finley**, Introduction & Welcome

8:50 **Arthur Lander**, Overview & History of SoCalSysBio

Session 1: Chair Geoff Fudenberg

9:00 **Pavak Shah (UCLA)** "Graph Metrics for Quantitative Embryology"

9:25 **Betty Hong (Caltech)** "Olfaction in Drosophila through the Lens of Natural Odors"

9:50 **Elena Koslover (UCSD)** "Navigating the Maze: Transport and Distribution through Intracellular Networks"

10:15 **Negin Forouzesh (CSULA)** "Physics-Guided Neural Networks for Binding Free Energy Calculations"

10:40 Coffee Break

Session 2: Chair Stacey Finley

11:10 **Geoff Fudenberg (USC)** "Maps & Mechanisms of 3D Genome Folding"

11:35 **Evgeny Kvon (UCI)** "To Loop or not to Loop: How Important is Enhancer-Promoter Contact for Gene Activation"

12:00 **Siddharth Dey (UCSB)** "Developing Integrated Single-Cell Epigenome and Transcriptome Sequencing Technologies to Study Early Mammalian Development"

12:25 Lightning Talks I:

Stefanie Luecke (UCLA)

Sheng Wang (Caltech)

Raktim Mitra (USC)

Marcus Kelly (UCSB)

Ali Rishah (CSULA)

12:40 Group Photo

12:45 Lunch & Poster Session 1

Session 3: Chair Adam MacLean

14:00 **Kathleen Curtius (UCSD)** "Measuring Single Cell Clonal Dynamics in Human Blood Using Coalescent Point Processes"

14:25 **Weitao Chen (UCR)** "Multiscale Modeling to Understand Robustness Mechanisms of Stem Cell Maintenance"

14:50 **Svasti Haricharan (Sanford Burnham Prebys)** "Whole Organism Approaches to Systems Biology in Cancer"

15:15 **Cristian Tomasetti (City of Hope)** "Mathematical Modeling of Cancer Evolution and Etiology"

15:40 Coffee Break

Session 4: Chair Nicholas Graham

16:05 **Lisette De Pillis (Harvey Mudd)** "A Within-Host Model of SARS-CoV-2 Neutralizing Antibody Activity in Response to mRNA Vaccination: How Academia and Biotech Partnered to Create a New Mathematical Model"

16:30 **Dequina Nicholas (UCI)** "Lipids and Type 2 Diabetes: Mechanisms of Nutrient-Induced Inflammation"

16:55 **Christian Metallo (Salk)** "Tracing Metabolic Systems in Cells and Animals to Understand Disease"

17:20 **Julia Schwartzman (USC)** "Collective Carbon Harvesting in Marine Bacteria"

17:45 Lightning Talks II

Aarush Maddela (UCLA)

Jacob Steenwyk (Berkeley)

Brian Orcutt-Jahns (UCLA)

Jiayu Liao (UCR)

Wayne Hayes (UCI)

18:00 Wrap Up, Stacey Finley, Adam MacLean

18:15 Reception & Poster Session 2

20:00 Event Ends