

# 15<sup>th</sup> Annual Symposium

Southern California Systems Biology

# PROGRAM



9:00am | **Welcoming remarks:** Alexander Hoffmann, UCLA

9:15am | **Session I** chaired by Stacey Deleria Finley

- . Matt Thomson, Caltech: *TBD*
- . Judith Kribelbauer, USC: *Constructing synthetic gene loci to learn the cis-regulatory code*
- . Arnab Mukherjee, UCSB: *Programming aquaporins to image and modulate biological functions from the cell surface*
- . Minji Byun, UCI: *One Mutation, two Diseases, one Mechanism? DNMT3A loss-of-function in overgrowth syndromes and clonal hematopoiesis*
- . Nagarajan Vaidehi, City of Hope: *Interpretable AI reveals cooperativity and allosteric communication in protein complexes*

10:30am | **Coffee break**

11:00am | **Session II** chaired by Mark Alber

- . Sheng Zhong, UCSD: *Targeting a multifunctional protein for Alzheimer's disease*
- . Jia Gou, UCR: *A study of the mechanisms of early epithelial cell clustering and collective motion*
- . Parag Katira, SDSU: *Predicting phenotype to mechanotype relationships in migrating cancer cells*
- . Carolyn Mills, UCSB: *Cell-free systems for studying and engineering protein assemblies*
- . Eytan Ruppin, Cedars-Sinai Cancer: *Towards fast and low-cost precision oncology*
- . David Ardell, UC Merced: *Evidence for an information genomics approach to predicting tRNA interaction determinants*

12:30pm | **Lightning Talks - Part I**

Haripriya Vaidehi Narayanan, UCLA – Babgen Manookian, City of Hope

12:35pm | **Lunch and Poster Session I (Posters 1-36)**

1:45pm | **Keynote Speaker:** Arthur Lander, UCI: *How do biological systems deal with “exponential” threats?*

2:15pm | **Session III** chaired by Adam MacLean

- . Elisa Franco, UCLA, *Programmable artificial RNA condensates in mammalian cells*
- . Heather Brooks, Harvey Mudd College: *Modeling the effects of hormonal oral contraceptive dosing on contraceptive efficacy*
- . Sharmila Venugopal, CSULB: *Defining functional interactomes in neural systems: toward a systems level framework with AI-augmented analysis*
- . Barbara Bailus, Keck Graduate Institute a Member of the Claremont Colleges: *Zip delivery: a new way to deliver therapeutics to the Brain*
- . Russell Rockne, City of Hope, *Viewing acute myeloid leukemia as an epigenetic system-wide state-transition*

3:30pm | **Coffee break**

4:00 pm | **Session IV** chaired by Weitao Chen

- . Ami Radunskaya, Pomona College: *Focused ultrasound and immunotherapy for brain cancer*
- . Seungsoo Kim, UCI: *Combinatorial transcription factor control of cell identity*
- . Yue Wu, UCR: *From snapshots to dynamics: tracking cells across time, space, and identity*
- . Tainã Coleman, UCSD: *Enabling scientific discovery through workflows and autonomous AI*
- . Roy Wollman, UCLA: *An information theory of biological atlases*

5:15pm | **Lightning Talks - Part II**

Jonathan Martinez, USC – Ethan Nowaski, UC Riverside – Dayeon Cheong, UC Irvine – Tyler King, USC – Sai Bavisetty, UCLA

5:30pm | **Reception and Poster Session II (Posters 37-71)**