

BOSTON MAMMALIAN SYNTHETIC BIOLOGY

KOCH INSTITUTE AUDITORIUM (76-156)
WED, AUG 9, 2023



TIME

SESSION

9:30 - 10 am

10 am - 12 pm

12 - 1 pm

1 - 2 pm

2 - 3:30 pm

3:30 - 5 pm

Registration

Session 1: Encoding and reading cellular functions

Lunch

Session 2: Engineering systems to understand biology

Poster session

Session 3: Sensing and controlling expression with synthetic circuits

AGENDA

Registration opens

Session 1: Encoding and reading cellular functions

DNA cryptography in living cells through multi-site base editing

Controlling behaviors of intrinsically disordered protein-based synthetic cell compartments using modular oligomerization domains

DNA-enhanced CuAAC ligand enables live-cell detection of intracellular biomolecules

Combining tagmentation-PCR and nanopore sequencing for multiplexed sequencing of targeted genomic loci

Supercoiling reversibly couples adjacent gene expression through biophysical feedback

9:30 - 10:00 am

10:00 - 12:00 pm

Verena Volf, Church Lab
Samuel Lim, Silver Lab

Keqing Nian, Rouhanifard Lab
George Chao, Church Lab
Christopher Johnstone, Galloway Lab

Lunch

12:00 - 1:00 pm

Session 2: Engineering systems to understand biology

An organoid model of human embryonic axial elongation

Patterning tissues via synthetic cell-cell signaling networks: bottom-up and top-down approaches

Engineering a sensor of p53 dynamics to map cell states to cell fates during fibroblast-to-motor neuron reprogramming

1:00 - 2:00 pm

Giri Anand, Ramanathan Lab
Ian Kinstlinger, Wong & Kotton Lab
Adam Beitz, Galloway Lab

Poster session

2:00 - 3:30 pm

Session 3: Sensing and controlling expression with synthetic circuits

Sensing and modulating Neurodegenerative Protein Aggregation with a Synthetic Protein Circuit

SNAP circuits: A highly-modular framework for protein-responsive RNA-based controllers

Developing cell therapy suicide switch using lenalidomide

3:30 - 5:00 pm

Giulio Chiesa, Khalil Lab
Kei Takahashi, Galloway Lab
Ditsa Sarkar, Jan Lab

**RSVP
today!**



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