CCBM
NSF-CREST
CENTER FOR CELLULAR AND BIOMOLECULAR MACHINES

The **NSF-CREST Center for Cellular and Biomolecular Machines** uses an interdisciplinary approach combining physical, biological and engineering methods to understand and control the functioning of multi-scale assemblies of biomolecules and cells, and to design and develop novel bio-inspired functioning machines ranging from designer cells and tissue to diagnostic and therapeutic devices. The center is also focused on enhancing biophysics, biochemistry and bioengineering graduate and undergraduate education, as well as leading K-12 STEM outreach activities in the Merced area for teachers and students.

CCBM Open House Activities
Held Jointly with CCBM External Advisory Board Meeting

9:20 AM - 11:50 AM	Research, Education, Outreach & Evaluation	SSB 130
12:45 PM - 1:45 PM	**Keynote Lecture, Tal Danino, Ph.D.**	**SSB 130**
2:00 PM - 2:30 PM	**Communicating Science Workshop, Tal Danino, Ph.D.**	**COB 116**
3:00 PM - 4:00 PM	CCBM-affiliated Lab Tours & Demonstrations	SE1/SE2
4:30 PM - 6:00 PM	Poster Session & Reception	KL 355

Learn about **CCBM highlights**

See where science happens in **lab tours** focused on biophysics, biochemistry & bioengineering

Meet CCBM graduate students, undergrads & high school students who conduct research during **poster session**

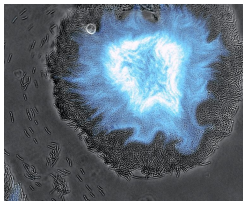
Engage in workshop that fuses **science, art & communication**

You're Invited!

CCBM OPEN HOUSE

OCTOBER 22, 2018

"…research explores the emerging intersection of systems biology, synthetic biology, and engineering, focusing on building a quantitative understanding of gene circuits and designing biological behaviors that have technological applications."
http://daninolab.nyc/taldanino



http://www.taldanino.com/

Keynote Lecture by Tal Danino, Ph.D.

Assistant Professor of Biomedical Engineering, Columbia University

"Synthetic Biology: From Programming Bacteria Behaviors to Cancer Therapies"

12:45 PM - 1:45 PM, SSB 130

The last decade of microbiome research has revealed an astounding prevalence of microbes in healthy and diseased tissue within the human body. At the same time, the field of synthetic biology has rapidly progressed in its ability to program living cells like bacteria. These two emerging fields have prompted the exploration of bacteria as a natural platform for the development of engineered therapies and diagnostics. In this talk, I will describe our progress towards a new design framework for engineering bacteria that bridges mathematical modeling, in vitro characterization, and in vivo diagnostics and therapeutics for cancer. The talk will begin with a description of bacteria circuitry that generate synchronized oscillations, and will then describe development of programmed bacteria as both diagnostic and therapeutic agents for cancer.

"Programmable Bacteria: A New Medium for Science & Art"

2:00 PM - 2:30 PM, COB 116

In this talk, I will briefly describe our research on programming bacteria for cancer detection and treatment. I will focus on a description of recent bioart works that integrate with research and give perspective on the past and present research fields.

Register: ccbm.ucmerced.edu

***Open to all** students, faculty, staff & local community. **Free** admission. Space limited.*
*Guest parking in **Bellevue Lot**. Permit-less parking dispenser; credit card only.*

UC Merced • 5200 North Lake Road • Merced, CA 95343