

## The Department of Molecular, Cellular and Developmental Biology Seminar Series Presents



## **Christine Dunham**

Associate Professor of Biochemistry Emory University School of Medicine

## "RNA-mediated mechanisms of translational control"

Dr. Dunham received her B.A. in Biochemistry from Barnard College, Columbia University in New York City, where she first became interested in understanding the role of nucleic acids in gene expression. As a graduate student in Dr. Bill Scott's lab at UC, Santa Cruz, she studied the mechanisms of RNA enzymes using time-resolved X-ray crystallography. She was an American Cancer Society Postdoctoral Fellow in Dr. Venki Ramakrishnan's lab where she established methodologies to crystallize the entire bacterial 70S ribosome to understand how tRNAs bind to different sites on the ribosome, how elongation factors promote translocation of tRNA-mRNA pairs, how release factors recognize stop codons for peptidyl hydrolysis, and how bacterial toxins cleave mRNA bound to the ribosome in response to stress. The Dunham lab uses biochemical and structural biology approaches to investigate how complex RNAs, RNA chemical modifications, bacterial toxin-antitoxin pairs and stress regulate translation to alter bacterial cellular responses. Previous honors include: NSF CAREER Early Stage Investigator, Pew Scholar in the Biomedical Sciences, the 2017 American Crystallographic Association Etter Early Career Award, 2018 American Society of Biochemistry and Molecular Biology (ASBMB) Young Investigator Award. She is currently a Burroughs Welcome Investigator in the Pathogenesis of Infectious Diseases.

Wednesday, October 9, 2019
Yale Science Building O.C. Marsh Lecture Hall
260 Whitney Ave., New Haven
3:45pm Tea 4:00pm Seminar
Hosted by: Valerie Horsley
Reception to follow on the YSB Terrace, sponsored by the RNA Center.

Sponsored by the Mrs. Hepsa Ely Silliman Memorial Fund

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