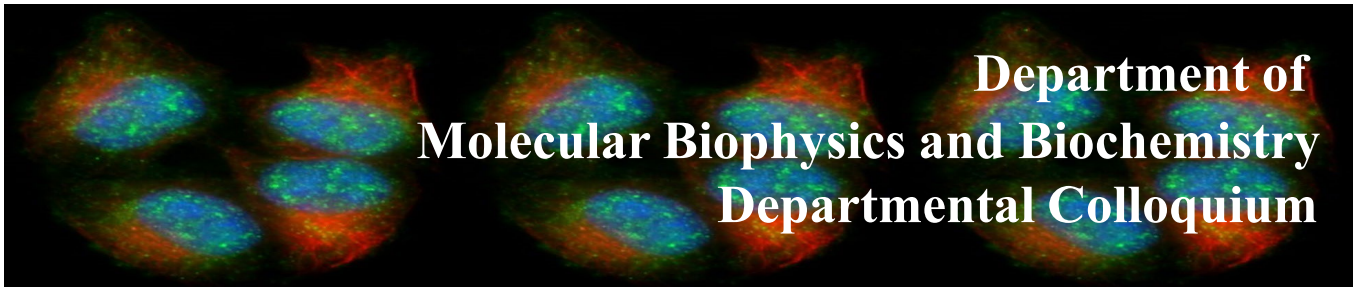

Department of Molecular Biophysics and Biochemistry Departmental Colloquium

Caitlin Davis, PhD

Department of Chemistry

Yale University

Protein dynamics: Connecting in vitro, in cell, and in vivo

Although biomolecules evolved to function in the cell, most biochemical and biophysical studies have been carried out in vitro. A combination of in vitro, in-cell, and in vivo studies will highlight how steric and non-steric interactions modulate protein folding and protein-RNA interactions. I will introduce a customized pipeline that combines meganuclease mediated transformation with fluorescence-detected temperature-jump microscopy to image fast dynamics of biomolecules in living zebrafish with single-cell resolution. To interpret in vivo and in-cell results, an in vitro systematic series of solvation environments will distinguish contributions from non-steric and steric interactions to stability, compactness, and kinetics. Our results demonstrate that different cellular environments of different tissues contribute to different protein stability and kinetic phenotypes

Monday, April 26, 2021

Presented via Zoom 94907490578

Full instructions in department email

4:00 Seminar

Host: Karla Neugebauer

Contact:shanna.dickinson@yale.edu