UC RIVERSIDE

BCH 252 Seminar Series

Jessica Tran, BCMB Graduate Student Researcher, PhD Candidate, UC Riverside

Seminar Title: " The reaction of an electron-bifurcating system from *Pyrobaculum aerophilum* and *Thermotoga maritima*"

Biography: Jessica graduated with a BS and MS in Biochemistry here at UCR. She is currently a 4th year Ph.D student in the Biochemistry and Molecular Biology Program, studying the reaction mechanism of an oxidoreductase enzyme in Dr. Russ Hille's lab. Her project focuses on deconvoluting the kinetic mechanism of an electron-bifurcating flavoprotein called the menaquinone-dependent NADH:ferredoxin oxidoreductase EtfABCX from the hyperthermophilic archaeon *Pyrobaculum aerophilum* and hyperthermophilic bacterium *Thermotoga maritima* to further our understanding on the electron bifurcation process—an evolutionarily ancient form of energy conservation that occurs in anaerobic microbes and some aerobes. Present efforts involve assigning specific spectral changes associated with each of the redox-active centers of the intact system and using these to quantitatively simulate the overall kinetics of the reaction.

Tuesday, April 23rd, 2024 12:00 p.m. - 12:50 p.m. PST

In-Person: Genomics Auditorium 1102A

Host: Dr. Sihem Cheloufi