



PCE₃ Seminar Series

Thurs, July 15th

1 p.m. EST/10 a.m. PST

More information & registration:

prebioticchem.info/seminar-series/index.html



Joshua Arriola

Graduate Student
*University of California San Diego,
Muller Lab*

"Investigating the Role of Ribozymes
in the RNA World"



Hannah Rutledge

Graduate Student
*University of California San Diego,
Tezcan Lab*

"On the Brink of Stability: Redox-
Dependent Conformational
Changes of the Nitrogenase
P-Cluster"

Topical introduction by Ulrich Muller, Associate Professor,
University of California San Diego

Joshua Arriola

Josh Arriola is a Biochemistry PhD candidate in Uli Muller's lab at UC San Diego. He earned a degree in Chemistry, B.S. from UC Santa Barbara and went on to work in the biotech industry for two years. He is currently investigating the role that RNA may have played in the early evolution of life including identifying and characterizing catalytic RNA that could have facilitated the replication of an RNA world organism, and exploring how other molecules may have aided the activity of catalytic RNA.

Hannah Rutledge

Hannah Rutledge is a Chemistry PhD candidate in Akif Tezcan's lab at UCSD. Prior to attending grad school, she was a high school chemistry teacher. She received her B.S. from Rice University where she conducted research on quantum dot solar cells. Currently, she is studying electron transfer in nitrogenase with a focus on protein dynamics. She is investigating conformational changes both on a large scale (the whole enzyme complex) and on a smaller scale (the electron transfer relay, the P-cluster).

Ulrich Muller

- Studied chemistry at the Ludwigs-Maximilians University in Munich, Germany
- PhD in biochemistry of an RNA-protein interaction in African Trypanosomes at the Max-Planck Institute for Biochemistry in Munich, and the University of Technology in Darmstadt, Germany
- Postdoctoral studies on catalytic RNAs with David Bartel at the Whitehead Institute / MIT in Boston
- Since 2006, faculty in the Department of Chemistry & Biochemistry at UC San Diego. My work at UCSD is on the selection and evolution of catalytic RNAs, with the two goals of studying how life originated, and to generate catalytic RNAs for therapeutic purposes.