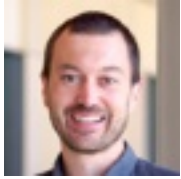




# Genome Sciences Seminar

Wednesday, 2.15.17 | 3:30 | Foege Auditorium

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## Dr. David Savage

Assistant Professor of Biochemistry, Biophysics, and Structural Biology  
University of California, Berkeley  
<http://www.savagelab.org/>

## “Fixed: Synthetic biological approaches for probing cellular physiology”

### Savage Lab:

The goal of the Savage Lab is to understand how compartmentalization facilitates the molecular physiology of the cell. Specifically, we are interested in the assimilation of carbon dioxide and the strategies used by microbes to optimize this metabolism. Our model system is the cyanobacterium *Synechococcus elongatus* PCC7942, which uses the multi-scale cooperation of many different protein components to increase the fidelity and rate of the critical enzyme ribulose-1,5-bisphosphate carboxylase / oxygenase (RuBisCO) in a process known as the Carbon dioxide Concentrating Mechanism (CCM). We use the tools of biochemistry, molecular biology, and synthetic biology to identify and interrogate the key players and mechanistic principles underlying CCM function. Ultimately, we hope to develop a total cell biological understanding of how CCM function emerges from individual components and to use this understanding for the improvement of carbon dioxide assimilation in plants.

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Refreshments served outside the Auditorium at 3:20pm

Questions? Contact Brian Giebel at [bgiebel@uw.edu](mailto:bgiebel@uw.edu) or visit the Seminar website at <http://www.gs.washington.edu/news/seminars.htm>

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