

Advanced Topics in Cell Biology: CB309qc**“The Basics of Translation: How Mechanistic Inquiry into Fundamental Cell Biology Brings Transformative and Unanticipated Insights to Disease Biology.”**

Time/Format: Thursdays 6-7:30pm in SGMB 502; Dinner provided

One primary research article and one review article will be assigned each week to prepare students for discussion.

January 23 **Davie Van Vactor** -- Course Introduction/Overview

Randy King

Topic: High Content Screening for Small Molecule Regulators of Cell Cycle

January 30 **Wade Harper**

Topic: Ubiquitin and Neurodegenerative Disease

February 6 **Fred Goldberg**

Topic: Protein Homeostasis and Drug Development: Successes, Opportunities & Challenges

February 13 **Steve Gygi**

Topic: Love is Homemade and so is Proteomics

February 20 **Robin Reed**

Topic: Shared Molecular Pathway Links the Motor Neuron Diseases ALS and SMA

February 27 **Dan Finley**

Topic: Enhancing Proteasome Activity to Eliminate Toxic Misfolded Proteins from Neurons

March 6 **Sam Reck-Peterson**

Topic: Mechanistic Understanding of Microtubule Motors and Neuronal Disease

March 13 **Yang Shi**

Topic: Epigenetics as a Key Means to Understand

March 20 **Junying Yuan**

Topic: Regulation of Programmed Cell Death: from Apoptosis to Necroptosis

March 27 **John Flanagan**

Topic: Axon Guidance Mechanisms Provide Insight into Neural Regeneration

April 3

Davie Van Vactor

FINAL DISCUSSION MEETING

Back up topic: Synapse Development as a Lens to Understand Neurodegeneration