Biochem/Cell Reg
Spring 2009 Journal Clubs

1. Current Topics in Pharmacology

Facilitators: David Mangelsdorf, Rama Ranganathan and Ryan Potts
Tuesdays; 8:30-9:30; ND7.218

This is a hot topics journal club where students will present papers relevant to the broad area of pharmacology that may come from many different disciplines. Each week a student will have the opportunity to pick a relevant high impact paper from the laboratory of one of the many seminar speakers that will be visiting our campus and presenting a seminar that same week (this includes speakers for ULS and all basic science departments). One to two weeks before class, each presenting student will submit a paper to the organizers for approval. The class is lively and spirited and all students are called upon to speak in class and give their opinion of the paper presented.

2. Post-transcription Gene Regulation

Facilitators: Kirsten Lynch and Nick Conrad
Thursdays; 10-11 a.m.; NB7.606

In recent years there is a growing awareness of the breadth and significance of mechanisms of gene regulation that occur after transcription initiation particularly in higher eukaryotes. This journal club will cover many of these new areas of active research including: alternative splicing, editing, 3' end processing, nuclear localization, mRNA stability, and translational control.

3. Metabolic Control of Biological Processes

Facilitators: Ben Tu and Steve McKnight
Tuesdays; 10-11 a.m.; L4.162

Ever since the "post-genomic era", biological researchers have often over looked the importance of cellular metabolism in the regulation of fundamental biological processes. This journal club will focus on the concept that many cellular events and decisions will be intimately linked to metabolic cues or the metabolic state of a cell. We will cover a variety of topics and include selections from both the classic and current literature.

4. Cutting-Edge Techniques and Methods for Biological Research

Facilitators: Wen-Hong Li and Jennifer Kohler
Tuesdays; 9:30-10:30 a.m.; K3.222

This journal club will focus on the development and application of several cutting-edge technologies. An astounding potential exists for these methods to bring enormous change in biomedical research and to enhance our fundamental biological knowledge.

Topics which we plan to discuss include: Innovative new probes for cell imaging *in vivo*; High resolution biological microscopy beyond light diffraction limit; Next generation sequencing technologies, deep sequencing and transcriptomes; Microfluidics; Protein labeling & proteomics, protein-protein & global genetic interactions.

5. Subcellular Localization of Signaling

Facilitators: Kate Luby-Phelps and Christoph Wuelfing
Wednesdays; Noon-1 p.m.; NB10.606

Signaling intermediates are not evenly distributed through the cytoplasm of a cell. Rather they accumulate at varying locations at different times. In this journal club we will explore how these variations in the subcellular concentrations of signaling intermediates as a function of time and space regulate cellular signaling and function. One emphasis will be how signaling is affected at the small systems scale.

6. Stem Cells and Regenerative Medicine

Facilitator: Tom Wilkie
Thursdays; 9-10 a.m.; ND8.218

The journal club will focus on recent papers using stem cells in regenerative medicine, manipulation of signaling pathways to achieve lineage specificity, and challenges to stem cell models. Topics include the use of embryonic stem cells and fetal or adult progenitor cells of the hematopoietic, endocrine pancreas and neural lineages.