CAMB 691. Advanced Topics in Cell Biology and Physiology I. Course Organizers: Mickey Marks, Ben Prosser, and Erika Holzbaur Prerequisite(s): BIOM 600 or a similar survey course in cell biology. Permission required prior to registration for all non-BGS students.

An in-depth consideration of key topics in cell biology and physiology. This course will focus on key issues at the forefront of research in the areas of (1) ion channels, (2) tissue and molecular biomechanics, (3) cytoskeletal dynamics and cell division, and (4) intracellular organelles and membrane transport. The course format pairs faculty presentations with student-led discussion sessions highlighting important papers from the primary literature. Students will be evaluated on their presentations and participation in class discussions.

Course Overview

CAMB 691 is a seminar course for first and second year graduate students focusing on the indepth consideration of key topics in cell biology and physiology. We will emphasize current questions in the field and how these questions can be addressed with new experimental approaches. The course will be organized around four major themes: (1) ion channels, (2) tissue and molecular biomechanics, (3) cytoskeletal dynamics and cell division, and (4) organelles and intracellular membrane transport. CAMB 691 will meet twice a week. New topics will generally be introduced in lectures presented by the faculty during the Monday sessions, and then will be discussed in depth in student-led presentations of relevant papers during the Friday sessions. Students will be evaluated based on their presentations and participation in class discussions.

Class will meet **Mondays and Fridays from 10:15 AM to 11:45 PM in BRB 901.** An organizational meeting will be held on Friday January 14th at 10:15 AM in BRB 901.

Course Organizers:

Michael Marks Dept. of Pathology & Laboratory Medicine, CHOP and Dept. of Physiology 816G Abramson Research Center (215) 590-3664 <u>marksm@pennmedicine.upenn.edu</u>

Benjamin Prosser Dept. of Physiology 726 Clinical Research Building (215) 746-1488 bpros@pennmedicine.upenn.edu

Erika Holzbaur Dept. of Physiology 630 Clinical Research Building (215) 573-3257 holzbaur@pennmedicine.upenn.edu

Participating faculty:

Carol Deutsch, Kevin Foskett, Rebecca Wells, Joel Boerkel, Benjamin Prosser, Yale Goldman, Mathew Good, Michael Lampson, Ekaterina Grishchuk, Michael Ostap, Michael Marks, Sandra Maday, Erika Holzbaur, Melike Lakadamyali