Graduate course in Molecular & Cell Biology (MCB):

CELL BIOLOGY OF MICROBIAL INFECTION

Course Title: Investigation of Special Topics: Cell Biology of Microbial Infection
Course Number: MCB 5896-057
Instructor: Campellone
Credits: 3
Meeting times: Tuesdays & Thursdays 11:00-12:15 (Location TBA)

In this course, we will discuss several of the fundamental functions of human cells and explore how microbial pathogens exploit these essential processes for their own benefit during infection. Students will be expected to research, critically analyze, discuss, and present peer-reviewed primary research publications. The goal of the course is for students to learn more about human cells and mechanisms of microbial pathogenesis while honing their discussion and presentation skills.

Possible topics include:
Apoptosis and Mycobacterium
Autophagy and Francisella
Cell cycle and Human Papillomaviruses
Endocytosis and Anthrax toxins
ER-Golgi transport and Legionella
Extracellular matrix and Borrelia
Filopodia assembly and Rickettsia
Focal adhesion signaling and Yersinia
Lamellipodia assembly and Listeria
Microtubule motor proteins and Salmonella
Nuclear Import and Baculoviruses
Rho-family GTPases and Salmonella
Retrograde transport and Shiga toxins
Septin cytoskeleton and Shigella
Tyrosine kinase signaling and Pox viruses

Registration preference will be given to PhD, MS, and PSM students. Undergraduates who received an ‘A’ in MCB2210 may register if given permission from the instructor.

For more information, contact Dr. Campellone.