**CSB454H1F**–**PATHOGENIC EFFECTOR BIOLOGY**

12L, 12S

**Lecturer:**

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**Prerequisite:** BCH311H1/CSB349H1/MGY311Y1

**Recommended preparation:** MGY377H1

Microbial pathogens inject effector proteins into host cells in order to sabotage cellular systems and favor the infection process. This course explores the molecular details of how cellular systems (e.g., secretion, cytoskeleton and signaling) are manipulated by pathogenic effectors to promote the infection process, while emphasizing interesting structural and biochemical features of effector biology along the way. The course will also compare and contrast the strategies employed by plant versus animal pathogens and how immune systems have evolved to cope with cellular hijacking by pathogenic effector molecules. The course will be based on the primary research literature and involve a combination of lectures and critical discussions of research papers.