DEPARTMENT OF CHEMISTRY & CHEMICAL BIOLOGY

April 6, 2018
Clark 101
4:00 p.m.

# SPYING ON CELLULAR COMMUNICATION WITH CHEMICAL TOOLS AND NONINVASIVE IMAGING

PRESENTED BY:

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Cellular networks drive diverse aspects of human biology. Breakdowns in cell-to-cell communication also underlie numerous pathologies. While cellular interactions play key roles in human health and disease, the mechanisms by which cells transact information in vivo are not completely understood. The number of cells types involved, the timing and location of their interactions, the molecular cues exchanged, and the long-term fates of the cells remain poorly characterized in most cases. This is due, in part, to a lack of tools for observing collections of cells in their native habitats. My group is developing novel imaging probes to “spy” on cells and decipher their communications in vivo. Examples of these probes, along with their application to studies of cancer progression and host-pathogen interactions, will be discussed.