



Departmental Colloquium

Thursday, February 9, 2017, 3:30 pm in Seeley G. Mudd (SGM) Room 124

SGM 124

Professor Benjamin Cravatt

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Activity-based Proteomics — Protein and Ligand Discovery on a Global Scale

Abstract:

Genome sequencing projects have revealed that eukaryotic and prokaryotic organisms universally possess a huge number of uncharacterized proteins. The functional annotation of these proteins should enrich our knowledge of the biochemical pathways that support human physiology and disease, as well as lead to the discovery of new therapeutic targets. To address these problems, we have introduced chemical proteomic technologies that globally profile the functional state of proteins in native biological systems. Prominent among these methods is activity-based protein profiling (ABPP), which utilizes chemical probes to map the activity state of large numbers of proteins in parallel. In this lecture, I will describe the application of ABPP to discover and functionally annotate proteins in mammalian physiology and disease. I will also discuss the generation and implementation of advanced ABPP platforms for proteome-wide ligand discovery.

The scientific community is invited to attend.