

UCLA Chemistry &
Biochemistry

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presenting

The 2017
Amgen – UCLA Lectureship
with
Professor Bradley L. Pentelute



Department of Chemistry
Massachusetts Institute of Technology

“Cysteine Arylation to Engineer Peptides and Proteins”

Abstract. Here we report a robust bioconjugation method using cysteine arylation. This chemistry enables site-specific conjugation at cysteine residues within peptides, proteins, and antibodies. Our two developed approaches use either perfluoroaryl-cysteine SNAr chemistry or organometallic palladium reagents. This work led to the discovery of a self-labeling four-residue sequence that enables regioselective conjugation at only one cysteine residue within an intact antibody containing natural amino acids. Recently, we discovered a new approach for the native conjugation of complex natural products such as vancomycin onto peptides and proteins without the introduction of linkers or chemical handles.

Thursday, February 2, 2017

5:00 PM

CS24 Young Hall

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