



Thursday, September 14, 2017, 12:30 pm
Seaver Science Auditorium

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Covalent Bonding of Chemistry and Biology

Abstract:

Discovery of chemical agents that modulate the functions of cellular proteins using conventional medicinal chemistry is often plagued with problems of low efficiency and poor specificity. My lab seeks to develop innovative approaches to overcome these problems and enable rapid and efficient discovery of high-quality chemical modulators for signaling proteins. A major methodological strategy employed by my lab exploits covalent interactions to achieve potent and specific binding of small-molecule ligands to macromolecules of interest. I will describe three complementary approaches that we take to discover such covalent chemical probes. The combination of these powerful approaches has enabled us to reach far beyond the boundary of conventional medicinal chemistry and create novel probes for proteins of diverse families, ultimately accelerating the development of new therapeutics for the treatment of human diseases, particular cancers.

The scientific community is invited