Department of Chemistry & Biochemistry

Seminar On

Drug Discovery & Biomedical Sciences

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UNIVERSITY of HOUSTON

Technologies for the Ubiquitin System: Enzyme Inhibitors and Protein Degraders

The Ubiquitin System has emerged as promising system for drug discovery. Two major principles of targeting the ubiquitin system have emerged: the direct targeting of the enzymes that control protein ubiquitination, and hijacking E3 ligases to induce protein degradation. We are interested in the discovery of direct inhibitors of E3 ligases and Deubiqutinating (DUBs) enzymes, as well as small molecules that redirect substrate specificity of E3 ligases onto drug targets (protein degraders/PROTACs). We then use these molecules as tools to a) map E3/Substrate interactions in cells, and b) use these compounds as tools to validate E3/DUBs or degradation of a particular protein as relevant drug targets to treat human diseases. In this lecture I will outline novel screening tools and technologies to discover small molecule inhibitors/activators and hijackers for RBR/HECT E3 ligases, and its relevance to oncology and neurodegenerative diseases.

DATE:	Friday, October 19, 2018
TIME:	12:30 – 1:30 pm
LOCATION:	Bioscience 2.168
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