



School of Pharmacy
UNIVERSITY OF WISCONSIN-MADISON



WARF
THERAPEUTICS
Invest-Develop-Partner

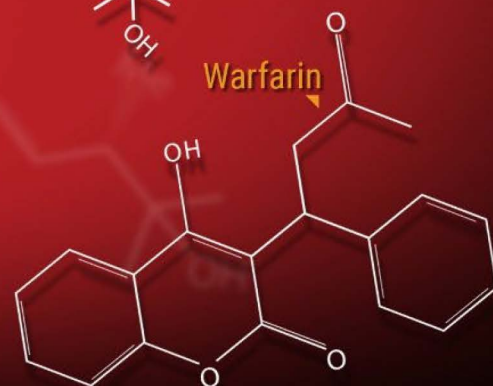
DRUG DISCOVERY SERIES

warf.org/therapeutics

Zemplar



Warfarin



UW Partner

STAGE 1
Screening &
Hit Validation

STAGE 2
Lead
Identification
(LI)

STAGE 3
Lead
Optimization
(LO)

STAGE 4
Preclinical
Candidate
Selection

COMMERCIALIZATION
PARTNER

Activity-Based Proteomics – Target and Ligand Discovery on a Global Scale

Friday, November 13, 2020 | 10:00 - 11:00 am CDT | Virtual Seminar

Advances in DNA sequencing have radically accelerated our understanding of the genetic basis of human disease. However, many of human genes encode proteins that remain uncharacterized and lack selective small-molecule probes. 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 that contribute to human diseases, such as cancer and autoimmunity. I will also discuss the generation and implementation of advanced ABPP platforms for proteome-wide ligand discovery and how the integration of these global 'ligandability' maps with emergent human genetic information and phenotypic screening can expand the druggable fraction of the human proteome for basic and translational research objectives.

About the Speaker



Benjamin F. Cravatt

Professor, The Scripps Research Institute

Dr. Cravatt is a Professor and the Norton B. Gilula Chair of Chemical Biology in the Department of Chemistry at The Scripps Research Institute. His research group is interested in developing chemical proteomic technologies that enable protein and drug discovery on a global scale and applying these methods to characterize biochemical pathways that play important roles in human physiology and disease, especially as pertains to the nervous system and cancer. Dr. Cravatt obtained his undergraduate education at Stanford University, receiving a B.S. in the Biological Sciences and a B.A. in History. He then received a Ph.D. from The Scripps Research Institute (TSRI) in 1996. Professor Cravatt joined the faculty at TSRI in 1997. Dr. Cravatt is an Associate Editor for JACS and is a co-founder of Activx Biosciences, Abide Therapeutics, and Vividion Therapeutics.