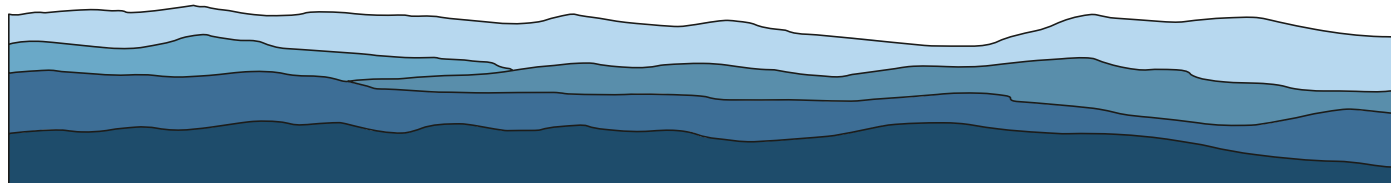


# HIGHLANDS IN CHEMISTRY SEMINAR SERIES



## CHRISTIAN MELANDER

UNIVERSITY OF NOTRE DAME

### “Using Nitrogen Dense Marine Alkaloids as a Platform for the Discovery of New Antibiotic Adjuvants”

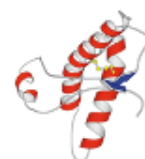
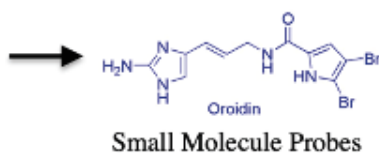
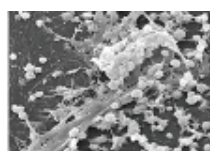
APRIL 22, 2022

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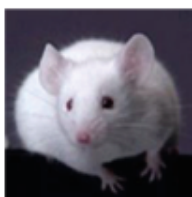
HAHN HALL NORTH 140

FACULTY HOST:  
ANDREW LOWELL

Antibiotic resistance and the rise of antibiotic resistant pathogens are threatening the vast strides we have made over the past century in human medicine. To combat the threatening tide of multi-drug resistant (MDR) bacteria, we have been exploring the use of small molecules based upon naturally occurring nitrogen-dense marine natural products to serve as adjuvants for antibiotic treatment regimens. The talk will detail our efforts to develop small molecule leads that inhibit and disperse bacterial biofilms both in vitro and in vivo, and the application of knowledge gained through mechanistic studies to identify additional small molecules that are able to reverse both acquired and intrinsic resistance in MDR pathogens.



Mechanism of Action



Validation in animal models

