



BIOCHEMISTRY SEMINAR

Cell-Wall Recycling in Bacteria and the Nexus to Antibiotic Resistance



Members of Enterobacteriaceae and *Pseudomonas aeruginosa* have the ability to sense damage inflicted to their cell wall by β -lactam antibiotics. The process involves chemical signaling, which will be a subject of my presentation. A primary mechanism for this sensing and signalling involves the events of cell-wall recycling. The cell wall is degraded for recycling and then the cell wall is synthesized de novo for the repair function. The recycling events get initiated by the functions of a family of 11 lytic transglycosylases in *P. aeruginosa*, which generate the signalling factors that influence transcriptional events in the cytoplasm. The mechanisms of these enzymes and those of the cytoplasmic recycling pathway have been the subject of study in my lab, which I will disclose in my presentation.

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UNIVERSITY OF NOTRE DAME

MONDAY

MAY 6TH, 2024 @4:00

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