

**Department of Mathematics and Statistics Colloquium**

## **An overview of research at CADRE**

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**Abstract:** The cost of drug resistance is placing an unbearable burden on global healthcare. Hospital-acquired infections alone are estimated to cost up to \$29 billion annually. Emerging infectious and neglected diseases including those caused by *Staphylococcus*, *Vibrio*, and *Shigella* are of immense concern due to acute drug resistance. Therefore, combining organism-specific differential and global proteomics with protein chemistry and computational biology, we are evaluating new and existing drug targets to develop broad-spectrum antibiotics. Our approach will help to understand the progression of antibiotic resistance, and the knowledge gained from this research will lead to the development of combination therapies and the next generation of antibiotics.

**Monday, October 19 at 3:45 in Roop 103**  
**refreshments at 3:30**