



פרופסור מריו פלדמן

המחלקה למיקרוביולוגיה מולקולרית

בית הספר לרפואה של אוניברסיטת וושינגטון בסנט לואיס
סנט לואיס, מיזורי, ארה"ב

Professor Mario Feldman

Department of Molecular Microbiology
Washington University School of Medicine St. Louis
St. Louis, Missouri, USA

Lecture | הרצאה

DISSECTING THE VIRULENCE STRATEGIES OF ACINETOBACTER BAUMANNII

Abstract

Healthcare-associated infections (HAI) are the most common adverse event in healthcare settings that affect patient safety. They contribute to significant morbidity, mortality, and financial burden on patients and healthcare systems. *Acinetobacter baumannii* (Ab) has been a leading cause of HAI, and it is the Gram-negative bacterium displaying the highest rate of multidrug resistance (MDR). Reflecting its growing impact on global health, the World Health Organization has listed carbapenem-resistant *Acinetobacter* as a critical threat to human health, prioritizing research into the development of new therapeutics. Although hospital-acquired pneumonia and bloodstream infections are the most common infections associated with *Acinetobacter*, soft-tissue infections, and urinary tract infections (UTIs) are also prevalent. Notably, ~20% of *A. baumannii* clinical strains are isolated from urinary sources, 60% of which correspond to catheter-associated UTI (CAUTI). In this seminar, I will first discuss our recent advances in understanding how *A. baumannii* cause infections, and in particular, UTIs. Traditional efforts to understand and track hospital outbreaks have focused on direct contact transmission, where infected patients act as sources for bacterial transmission to uncolonized patients. Hospitals often institute active patient surveillance, strict contact precautions, and sterilization interventions. Although these measures mitigate the spread of bacteria, the means by which new strains initiate hospital outbreaks are rarely understood. I will present our work supporting the hypothesis that patients previously colonized by *A. baumannii* act as reservoirs for potential outbreaks in hospital settings. Understanding the reservoirs and virulence mechanisms of nosocomial pathogens like Ab will aid in the development of effective strategies for infection prevention and control in hospital settings.

The lecture will be held on Monday
21 March 2022, at 12:15
Hall 100, Faculty of Medicine Building
Tel-Aviv University, Ramat-Aviv

ההרצאה תתקיים ביום שני
21 במרץ 2022, בשעה 12:15
אולם 100, בניין הפקולטה לרפואה
אוניברסיטת תל-אביב, רמת-אביב

כיבוד קל יוגש לפני ההרצאה | Light refreshments will be served before the lecture