



# The Role and Importance of Interdisciplinary Collaboration in the AMR Era

Pitak Santanirand

Associate Professor

Infection caused by antimicrobial-resistant (AMR) pathogens has become one of the biggest issues in public health. The battle against AMR organisms requires a multifaceted approach that integrates diverse scientific disciplines to achieve optimal patient outcomes. Interdisciplinary collaboration in clinical microbiology laboratories plays a pivotal role in enhancing diagnostic accuracy, improving treatment efficacy, preventing and controlling infection, and fostering innovation in microbial research. The significance of such collaboration highlights how the integration of medical technologists (microbiologists), clinicians, nurses, pharmacists, and bioinformaticians contributes to achieving the appropriate outcome. Effective communication and teamwork facilitate the rapid identification of pathogens, guide appropriate antimicrobial therapies, and inform infection control strategies, ultimately improving patient safety and health care quality. Furthermore, collaborative efforts in research and development lead to the creation of novel diagnostic tools and treatment approaches, advancing the field of microbiology. This multifaceted partnership not only enhances laboratory efficiency but also strengthens the public health response to emerging infectious threats. In summary, interdisciplinary collaboration is essential in clinical microbiology laboratories, driving innovation and ensuring the holistic management of infectious diseases in an increasingly complex healthcare landscape.

