

Title: Guiding Clinical Decisions with Molecular Information provided by Direct Mass Spectrometry Technologies

Abstract: Mass spectrometry techniques that allow direct and fast molecular analysis of clinical samples offer the exciting opportunity to incorporate molecular data into clinical practice to expedite clinical decision making and thus improve diagnosis and patient care. In this seminar, I will discuss developments and applications of direct mass spectrometry techniques for use in clinical microbiology labs, clinical pathology labs, and in the operating room. Key operational principles, depth of molecular data, and the analytical and diagnostic performance metrics achieved with these techniques for disease detection will be discussed to provide a critical assessment of their capabilities and potential uses within the context of routine clinical practice. My presentation will focus on results obtained in ongoing clinical studies employing the MasSpec Pen Technology to guide clinical decision making. Challenges and opportunities in implementing the technology into clinical workflows will also be discussed.