



**Showcasing research from Professor Bee Luan Khoo's Microsystems for Personalised Medicine (MPM) Lab, Department of Biomedical Engineering, City University of Hong Kong, this review focuses on microfluidics-based rapid bacterial detection and disease.**

Advancements in microfluidic technology for rapid bacterial detection and inflammation-driven diseases

Microfluidic platforms have garnered significant attention for their pivotal role in rapidly detecting bacterial infections and studying inflammatory diseases. These innovative systems facilitate the swift and precise identification of bacterial pathogens by integrating immunological, optical, and electrochemical techniques. Furthermore, microfluidic devices are powerful tools for simulating inflammatory responses, providing valuable insights into disease mechanisms and potential therapeutic strategies.

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**As featured in:**



See Bee Luan Khoo *et al.*,  
*Lab Chip*, 2025, **25**, 3348.