



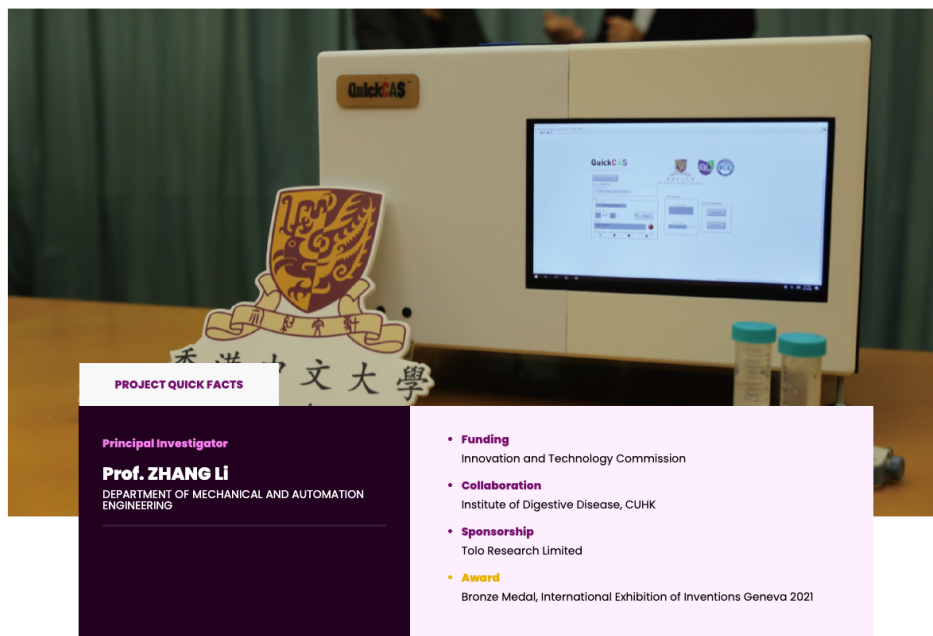
[Home](#) > [Project](#) > [Biomedical Sciences and Healthcare Technologies](#) > QuickCAS: An Easy-To-Use Analysis System for Quick Detection of Infectious Pathogens in Clinical Samples

[Print the page](#)

QuickCAS: An Easy-To-Use Analysis System for Quick Detection of Infectious Pathogens in Clinical Samples

#Screening

#Covid19

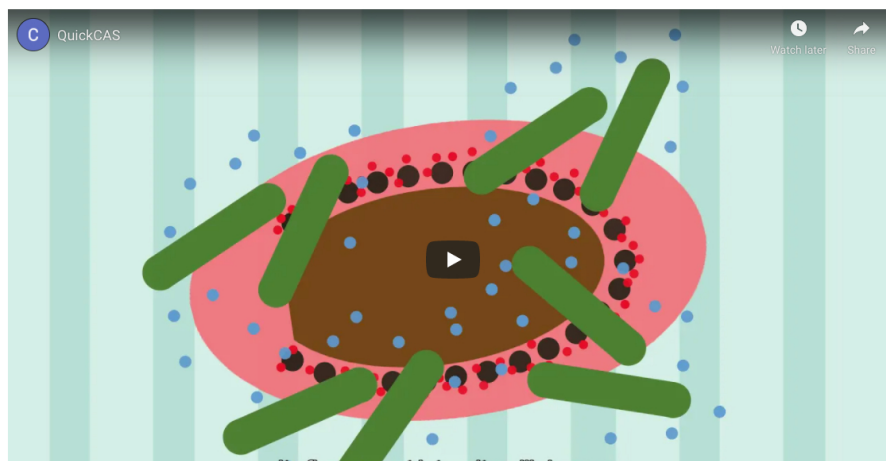


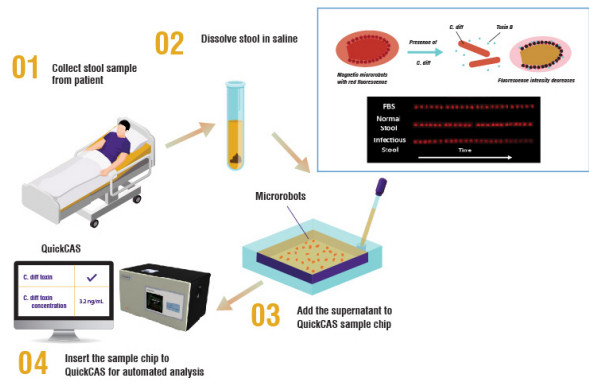
Infectious diseases cause 50,000 deaths daily. Early detection is essential for timely treatment and prevention. However, current diagnostic methods face limitations in long reaction time, high costs, or require specialists to conduct labour-intensive procedures. To tackle this, we developed a fast and effortless detection system, which integrates a novel microbotic sensing probe capable of detecting a specific pathogen with magnetic field and fluorescence. Our first product QuickCAS targets the detection of *C. difficile* infection, one of the most typical infections in hospitals. This technology has filed a US nonprovisional patent and a Chinese invention patent.

Uniqueness and Competitive Advantages:

- Quick detection (15 mins vs 2-4 hours with present protocol)
- Low cost (US\$5 vs US\$40)
- Fully automated, which does not require specialised manpower for tedious procedures and reduces risk of infection especially during highly infectious pathogen detection
- Prototype system ready to be deployed in hospitals for clinical trials
- Can be applicable to batch and multiplex detection of different pathogens, including* COVID-19, *Streptococcus pneumoniae*, *Salmonella*, Pathogenic *E. coli*, and *H. pylori*

* Under development with Department of Microbiology, CUHK





Detection workflow of *C. diff* with QuickCAS and its detection mechanism

DO YOU LIKE OUR PROJECT?

 Tweet it

 Share it

 Share it

Contact us

MORE TO EXPLORE

[All projects >](#)

