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Emerging point-of-care technologies for bacterial pathogen detection

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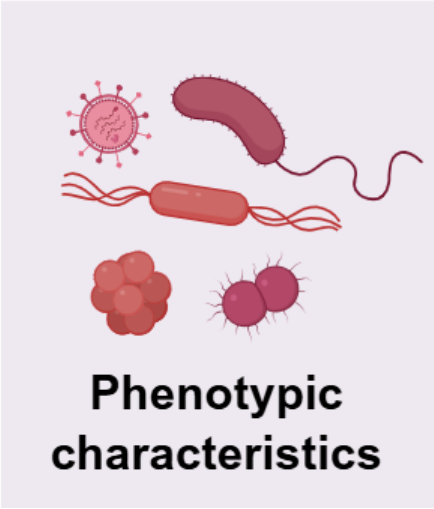
Key words: Point-of-care testing (POCT); Bacterial detection; Microfluidic; Immunoassay; Nucleic acid amplification; Clustered regularly interspaced short palindromic repeats (CRISPR)-CRISPR-associated protein (Cas) system (CRISPR-Cas)

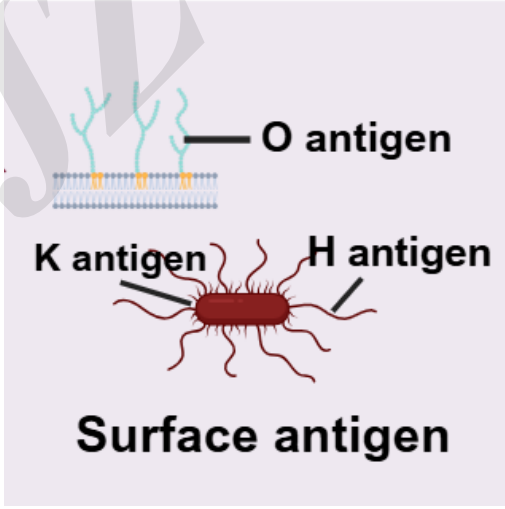
Research Summary

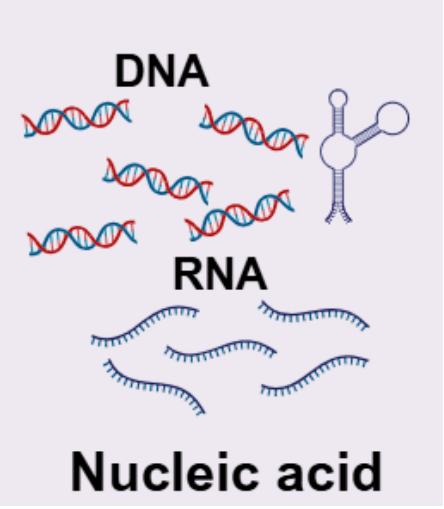
This review systematically summarizes recent advances in POCT strategies for bacterial detection, categorized according to three major types of detection targets:

- **Cellular phenotypic characteristics**
- **Surface antigens**
- **Nucleic acids**

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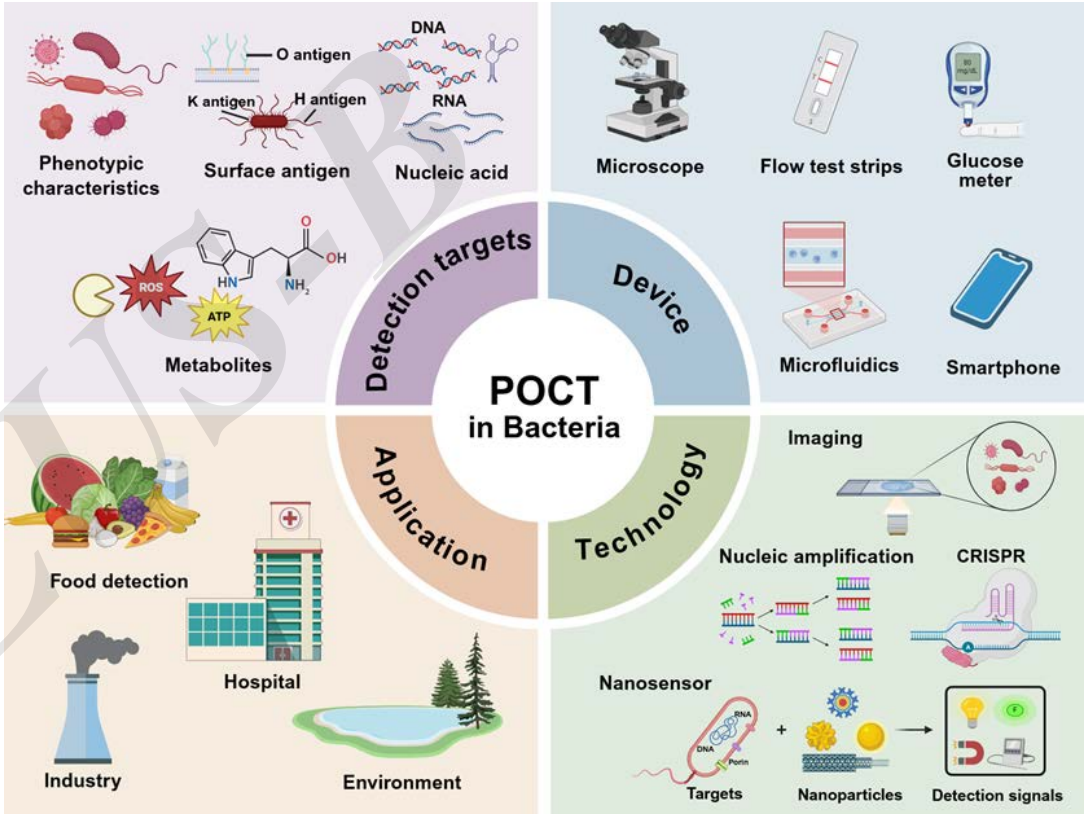


Innovation points

- **Introduce POCT technology based on the three major detection targets.**

- **Summarize the latest advances in POCT technology based on the three major targets in clinical research.**

- **Emphasize the principles, advantages, limitations, and representative applications of key POCT platforms.**



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Innovation points

A series of comprehensive figures were generated to summarize the latest knowledge about POCT.

Figure 1 | Overview of POCT in bacteria.

Figure 2 | Bacterial morphology-based POCT in bacteria.

Figure 3 | Surface antigen-based POCT in bacteria.

Figure 4 | Nucleic acid-based POCT in bacteria.

Table 1 | POCT methods for pathogenic bacteria detection.

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