

MOBILE MOLECULAR DIAGNOSTICS SYSTEM

Tech ID: 24969 / UC Case 2015-147-0

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	9,901,923	02/27/2018	2015-147

BRIEF DESCRIPTION

There is a growing interest in point-of-care testing (POCT) where testing is done at or near the site of patient care, since POCT has a short therapeutic turnaround time, decreased process steps where errors can occur and only a small sample volume is required to perform a test.

UC Berkeley researchers have developed a mobile molecular diagnostics system that leverages efficient and dependable blood sampling, automated sample preparation, rapid optical detection of multi-analyte nucleic acids and proteins, and user-friendly systems integration with wireless communication. The system includes a hand-held automated device with an adaptive sample control module, an optical signal transduction module, and an interface to a smartphone making this a reliable and field-applicable system for point-of-care and on-demand diagnostics.

SUGGESTED USES

- » Microfluidic point-of-care diagnostic device for protein and nucleic acid detection
- » Point-of-care device for on-demand diagnostics
- » Forensic science testing
- » Food testing
- » Environmental monitoring

ADVANTAGES

- » Rapid and simultaneous detection of multiple analytes (e.g., proteins and nucleic acids)
- » Portability
- » Low cost, simple operation, and low power consumption
- » Automated sample preparation
- » User-friendly systems integration

CONTACT

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INVENTORS

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OTHER INFORMATION

KEYWORDS

Diagnostics, point-of-care, personalized medicine, on-demand, hand-held, analysis, wireless communication, nucleic acids, proteins, molecular diagnostic

CATEGORIZED AS

- » **Biotechnology**
 - » Genomics
 - » Proteomics
- » **Medical**
 - » Diagnostics
 - » Research Tools
- » **Research Tools**
 - » Nucleic Acids/DNA/RNA
- » **Security and Defense**
 - » Food and Environment
- » **Veterinary**
 - » Diagnostics

RELATED CASES

2015-147-0

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- ▶ [Portable Fluidic Actuation](#)
- ▶ [Self-Powered Blood Coagulation Chip For Inr Value And Hematocrit Determination](#)



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