

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

Terri Sale
terri.sale@berkeley.edu
 tel: 510-643-4219.



INVENTORS

- » Lee, Luke P.

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](#)



University of California, Berkeley Office of Technology Licensing

2150 Shattuck Avenue, Suite 510, Berkeley, CA 94704

Tel: 510.643.7201 | Fax: 510.642.4566

ipira.berkeley.edu/ | otl-feedback@lists.berkeley.edu

© 2015 - 2018, The Regents of the University of California

[Terms of use](#) | [Privacy Notice](#)