

SYNTHETIC DNA BIOSENSORS WITH MULTIVALENT APTAMERS FOR MULTIPLE VIRUSES DIAGNOSTICS

Tech ID: 32961 / UC Case 2023-034-0

PATENT STATUS

Patent Pending

BRIEF DESCRIPTION

Viruses have caused substantial health problems in the world. In 2019, the ravage caused by SARS-CoV-2 highlights the global health danger of emergent pathogens again. Rapid diagnostics of viruses is essential for timely, frequently life-saving treatment. However, most diagnostic testing methods are only capable of detecting single species of virus. In addition, viruses can mutate rapidly, a process which can render single-target diagnostics ineffective.

UC Berkeley researchers have developed synthetic DNA arrays as a universal platform to bind viruses with multivalent aptamers which is more tolerant to mutations and capable of detecting multiple species of viruses simultaneously.

SUGGESTED USES

- » Diagnostic device for detecting multiple variants of viruses simultaneously

ADVANTAGES

- » scalable manufacture
- » cost efficiency
- » portability
- » reliability

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INVENTORS

- » [Tikhomirov, Grigory A.](#)

OTHER INFORMATION

KEYWORDS

Diagnostic, virus

CATEGORIZED AS

- » **Medical**
- » Diagnostics
- » Disease: Infectious Diseases

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