SYNTHETIC DNA BIOSENSORS WITH MULTIVALENT APTAMERS FOR MULTIPLE VIRUSES DIAGNOSTICS

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PATENT STATUS

Country	Type	Number	Dated	Case
Patent Cooperation Treaty	Published Application	WO/2024/191659	09/19/2024	2023-034

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. Rapid diagnostics of viruses is essential for timely, and 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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OTHER INFORMATION

KEYWORDS

Diagnostic, virus

CATEGORIZED AS

» **Medical**

» Diagnostics

» Disease: Infectious Diseases

RELATED CASES

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