Letter to the Editor

New Role for CRISPR-Cas

To the Editor of AMJAM

An article entitled "Virus detection via programmable Type III-A CRISPR-Cas systems," which was published in Nature Communications on September 27, 2021.¹ The repost contains valuable information about combating the present pandemic caused by the SARS-CoV-2. The COVID-19, which that coronavirus causes, has wreaked havoc on populations globally and is having severely adverse economic implications worldwide.

One of the challenges posed by the ongoing pandemic and previous viral diseases has been the availability of rapid testing of the causative viruses, an intervention which could limit the spread of such diseases. Antigen-based tests usually lack high sensitivity. However, nucleic acid-based detection, based on Polymerase Chain Reaction (PCR), has many advantages over antigen-based and serologic tests. It is quantitative, highly sensitive and has many advantages over antigen-based and serological tests, and can be made available prior to the onset of a potential pandemic, but it has limitations.

The Clustered, Regularly Interspaced, Short Palindromic Repeat (CRISPR) and CRISPR-Associates (CAS) detection methods have further improves testing. These methods were developed by a group of scientists, who also authored the article: Sagar Sridhara, Hemant N. Goswami, Charlisa Whyms, Jonathan H. Dennis, and Hong Li. Their CRISPR-Cas-based detection methods show high sensitivity and accuracy; moreover, the tests are inexpensive.¹

Reference

 Sridhara S, Goswami HN, Whyms C, Dennis JH, Li H. Virus detection via programmable Type III-A CRISPR-Cas systems. https://www.nature.com/articles/s41467-021-25977-7. Published 2021. Accessed September 30, 2021.

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