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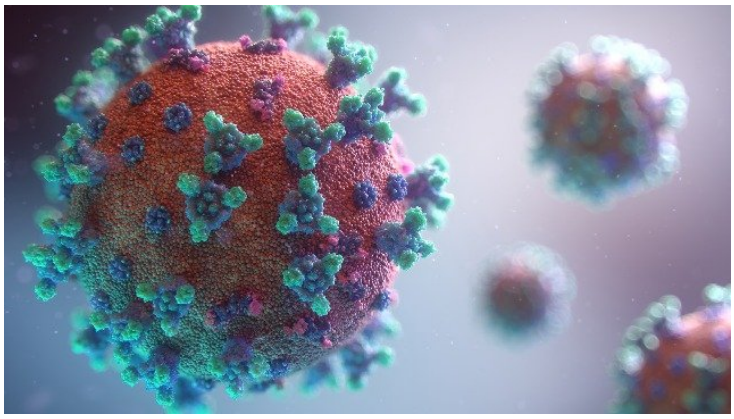
US develops CRISPR-based hand held COVID-19 test for mass screening

August 9, 2021 | News

CRISPR-based tests are emerging as powerful alternatives to conventional diagnostics



An international consortium of scientists from the US has developed a CRISPR-based COVID-19 diagnostic test that, with the help of a smartphone camera, that can provide a positive or negative result in 20 minutes and detect how contagious a person is.

This Fast Integrated Nuclease Detection In Tandem (FIND-IT) approach enables sensitive, direct RNA detection in a format that is amenable to point-of-care infection diagnosis as well as to a wide range of other diagnostic or research applications.

Implementation of a full point-of-care testing strategy using FIND-IT will require additional development of suitable sample collection and processing procedures as well as a robust data analysis and management pipeline.

Future studies with greater numbers of human samples will also be needed for clinical validation of diagnostic tests that utilize FIND-IT for RNA detection.

The sensitive and accelerated response of this one-pot detection chemistry could have broad use for detection of SARS-CoV-2 RNA and also other viral or cellular RNA sequences in the future.