International Journal on Recent Advancement in Biotechnology & Nanotechnology
Vol. 3, Issue 2 – 2020
ISSN: 2582-1571

Nanodiagnosis for COVID-19

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Abstract

COVID-19 has become a global problem in 2020. This new emerging infection has caused a worldwide pandemic. Several attempts have been made by scientists in order to manage the problem. New technologies such as nanotechnology have also been applied for managing COVID-19. Here, the author would like to present and discuss on nanodiagnosis for COVID-19.

Keywords: COVID-19, Nanotechnology, Diagnosis.

Introduction

COVID-19 has emerged as a global problem in 2020 and has caused a worldwide pandemic. Scientists have made innumerable attempts in order to manage this problem. New technologies such as nanotechnology have also been tried for managing COVID-19. Here, the author would like to discuss on the use of nanodiagnosis for COVID-19.

As is evident by the term, nanodiagnois is the applied nanotechnology for diagnostic purposes. The use of nanoparticle can help ease the process of diagnosis and can decrease the cost. Some new nanotools have already been proposed for the diagnosis of COVID-19.

Nanodiagnosis for COVID-19

Similar to other virus infections, nanotechnology is applicable for diagnosis of COVID-19. Chauhan et al. (2020) noted the advantage of development of biosensor to fabrication of multifunctional nanohybrid system for managing COVID-19. Sivasankarapillai et al. (2020) stated that applications of nanochemistry and general nanotechnology are useful to pave a new way for nanodiagnostic systems for COVID-19. A few examples of the new nanodiagnostic systems for COVID-19 are hereby presented in Table 1.

Table 1.Some important reports on Nanodiagnostic Systems for COVID-19

Authors	Details
Moitra et al. (2020)	Moitra et al. (2020) developed a new selective naked-eye detection of SARS-CoV-2 mediated by N Gene targeted antisense oligonucleotide capped plasmonic nanoparticles.
Huang et al. (2020)	Huang et al. (2020) developed a new rapid detection system using IgM antibodies against the SARS-CoV-2 Virus via colloidal Gld nanoparticle-based lateral-flow assay.
Wen et al. (2020)	Wen et al. (2020) reported on the development of a lateral flow immunoassay strip for rapid detection of IgG antibody against SARS-CoV-2 virus.
Mertens et al. (2020)	Mertens et al. (2020) reported on the development of the new COVID-19 Ag Respi-Strip diagnostic assay.

Conflict of Interest: None

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