Coronavirus Outbreaks: Nanomedicine and Future Perspectives

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COVID-19 has become a serious public health challenge for all the countries and established public health emergency. This infectious disease has dragged down the economy of the all top developed and developing nations. The coronaviruses caused several epidemics such as SARS (2002-2003), MERS (2005) and followed by COVID-19 (2019-2020). The zoonotic origin and their crossover to humans forewarn the world about the consequences of perturbing ecological niches of viruses. According to WHO as of August 16, 2020, COVID-19 has been spread in 216 countries with 21.5 million confirmed cases, 7.66 million confirmed deaths. The historical background of viral infection encountered with present day challenges and futuristic approaches with the help of nanotechnology to minimize the spread of infectious viruses. Nanotechnology has improvised therapeutic advancements in recent years and is advanced combating tool in drug designing as well as drug targeting. Scientists could be encouraged toward use of nanomaterials for targeting viral structures and depraving the impact of such novel viral infections (1).

1. A. Gupta, S. Kumar, R. Kumar, A. K. Choudhary, K. Kumari, P. Singh, V. Kumar (2020), COVID-19: Emergence of Infectious Diseases, Nanotechnology Aspects, Challenges, and Future Perspectives ChemistrySelect, 5, 7521-7533.