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OPINION

Extensive Partnership, Collaboration, and Teamwork is Required to Stop the COVID-19 Outbreak

Chiranjib Chakraborty,^{a,b} Ashish Ranjan Sharma,^a Garima Sharma,^c Manojit Bhattacharya,^b
Rudra P. Saha,^a and Sang-Soo Lee^b

^aDepartment of Biotechnology, School of Life Science and Biotechnology, Adamas University, Kolkata, West Bengal, India

^bInstitute for Skeletal Aging and Orthopedic Surgery, Hallym University-Chuncheon Sacred Heart Hospital, Chuncheon-si, Gangwon-do, Korea

^cNeuropsychopharmacology and Toxicology Program, College of Pharmacy, Kangwon National University, Republic of Korea

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The COVID-19 outbreak is a disaster now throughout the world. To stop this outbreak, we appeal through the paper for extensive partnership, collaboration and teamwork among the all levels of workers such as scientist, doctors, medical professionals, social workers, policy makers, governments, pharmaceutical firms, funding aid agencies to stop the pandemic immediately. © 2020 IMSS. Published by Elsevier Inc.

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World Health Organization (WHO) carried out rigorous and timely meetings to control the outbreak of the COVID-19. To contain the rapid global outburst of the SARS-CoV-2 virus, the founding of an expert task force to counter this emerging situation is urgently required. It's well known that the first patient with pneumonia of unknown etiology in Wuhan city was notified to the WHO in China office on December 31st 2019 (1–4). Since then, outbreaks have spread to several countries. Considering the seriousness of the COVID-19 outbreak on January 30th 2020, WHO allows COVID-19 as a public health crisis. Now it has spread to more than 25 countries in no time. The global economy has started to crumble due to this coronavirus outbreak. Several companies in China stopped their production units for a certain period of time to halt the spreading of SARS-CoV-2 infections. This has resulted in a slowdown of China's economy and is now influencing the Asian economy. Similarly, global tourism-related industries are suffering and presently are in bad shape (5).

Previous experiences with viral outbreaks over the past two decades have augmented our understanding of this virus. Wuhan coronavirus outbreak is distantly associated with the SARS-CoV and MERS-CoV disease as it causes similar symptoms. Previously, in 2002 and 2003, SARS-

CoV caused SARS outbreaks in Guangdong Province, China (6) and in 2012, MERS-CoV caused MERS outbreak in the Middle East (7). The SARS outbreak killed about 774 people while the MERS outbreak was found associated with about 858 deaths worldwide. However, to date, the COVID-19 outbreak has accounted for more than 325,214 deaths. Deaths are not only restricted to China but are being reported from different parts of the world. The situation now has been considered as a pandemic. COVID-19 is a massive outbreak that as not been experienced ever. Therefore, we are compelled to ask the following questions: Why the pharmaceutical industries have not formed an immediate collaborative platform for the development of new therapeutics in this direction? Why foreign-aid agencies are not paying proper attention to stop the COVID-19 outbreak?

A gap of knowledge between SARS-CoV-2 and COVID-19 should be filled up quickly by the research efforts. To achieve this a collaborative research platform must be formed between pharma companies and Government agencies. All international organizations involved with the research should integrate and share updates with each other to speed up the drug or vaccine development process for the treatment and prevention of COVID-19. Publication houses should publish research and information quickly for the scientific communities. Moreover, all the information related to SARS-CoV-2 and COVID-19 should be made open access for the researchers.

Scientists have proposed that SARS-CoV-2 may have transferred from bats or pangolins to humans (8). Bat meat may be the origin of this virus. Huanan wholesale seafood

Address reprint requests to: Chiranjib Chakraborty, PhD, Prof. Department of Biotechnology, School of Life Science and Biotechnology, Adamas University, Barasat-Barrackpore, Rd, Jagannathpur, Kolkata, West Bengal 700126, India; Phone: (+91) 9871608125; E-mail: drchiranjib@yahoo.com or 23sslee@gmail.com

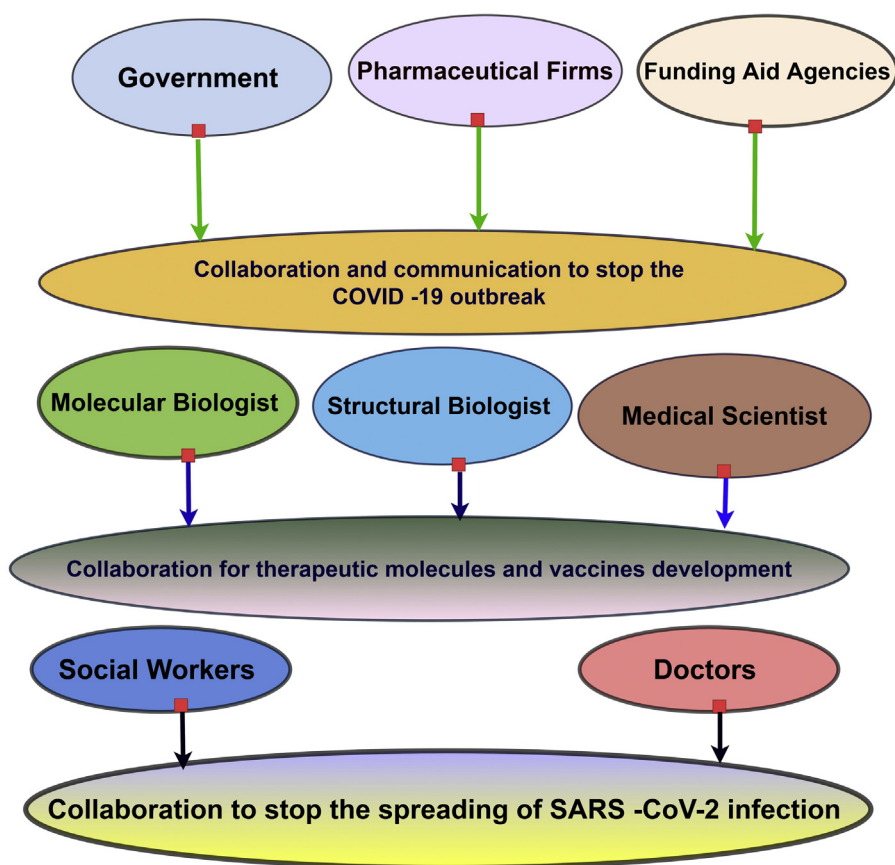


Figure 1. Different level of proposed partnership, collaboration in the community to stop the COVID-19 outbreak.

market, where the live animals are traded, including snakes, birds, marmots, and bats may be the point of origin of COVID-19. Conversely, human-to-human transmission of this virus is also critical (9). However, the precise animal host of this virus is still a mystery and the mechanism by which the virus jumped from the animal to humans remains unclear. Therefore, biologists should collect the animal samples selectively for this research. To quickly identify the natural reservoirs the virus biologists should collaborate with medical scientists. Similarly, structural biologists, chemists, medical scientists should frame a multidisciplinary team for therapeutic and vaccine development programs. Social workers must join hands with the physicians and policy makers to bring awareness of the COVID-19.

Recently, Nature medicine editorial appealed for the collaboration and cooperation approaches from all the levels (Figure 1) (10). Straight away, joining hand, quick communication and collaboration among Governments from SARS-CoV-2 affected countries can provide a way-out of this crisis. More funds are required from Governments, pharmaceutical firms, funding aid agencies to solve the secrecy of this viral outbreak.

Conflict of Interest

No potential conflict of interest was declared by authors.

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