



Conference Abstract

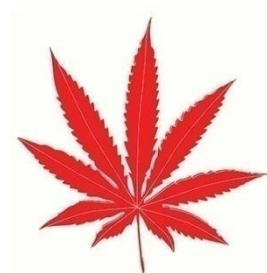
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## A Response to COVID-19

# International Conference of Pharmaceutical and Medical Sciences

September 1-3, 2020 (Tuesday - Thursday)

Faculty of Pharmacy For Girls - Al Azhar University, Cairo, Egypt.



## Conference Abstract

### SITUATIONAL ANALYSIS OF COVID-19 IN EGYPT

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## ABSTRACT

SARS-CoV-2, the causative agent of Coronavirus disease 2019 (COVID-19), has infected more than 22 million people around the globe. Although this pandemic pathogen spreads with enormous efficiency it seems to be highly sensitive to interferons. Here, I will discuss some of the mechanisms allowing SARS CoV-2 to prevent control by the innate immune response and to escape or even hijack specific cellular antiviral factors. In collaborative studies, we found that the non-structural protein 1 (Nsp1) of SARS CoV-2 targets ribosomes to shutdown cellular mRNA translation and consequently the antiviral immune response. I will show that the Zinc finger antiviral protein (ZAP) that specifically targets CpG dinucleotides in viral RNA sequences restricts SARS-CoV-2, although this pandemic pathogen emerged from zoonosis of a coronavirus that was preadapted to the low CpG environment in humans. Finally, I will provide evidence that SARS CoV-2 may actually hijack specific "antiviral" factor for efficient infection of human lung cells.

## Speaker's Biography

Dr. Omar Abdel Aziz Abou El Ata holds Master and Doctoral Degrees in Public Health. He has a fellowship in infection prevention and control. He joined WHO country office in 2014 as a technical surveillance officer. Currently he is in charge of coordinating COVID19 response at WHO country office of Egypt. Dr Omar worked at the Naval Medical Research unit (NAMRU3) as an epidemiologist / infection control specialist between 2010 and 2014. He was responsible for establishment and coordinating the Egypt HAI and AMR national surveillance system. In addition, his responsibilities extended to provide the technical guidance and capacity building for Healthcare workers in Saudi Arabia and Jordan in

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