

REVIEW

Scientific consultant for the PhD doctoral dissertation of Khaidarov Saken Zharkynovich on the topic: «Study of the antiviral activity of drugs against the SARS-COV-2 virus in vitro» educational program 8D05110 - Virology

The problem of «new» infectious diseases, which include coronavirus infections, has now become particularly relevant for national and international healthcare systems.

One such infection is the new coronavirus SARS-CoV-2. Coronaviruses are enveloped RNA viruses that cause respiratory illnesses ranging in severity from the common cold to fatal pneumonia. Seven strains of human coronaviruses have been characterized, four of which are known to infect the upper respiratory tract and cause mild symptoms, and three others are known to be severely pathogenic in the lower respiratory tract, including the following: SARS-CoV (severe acute respiratory syndrome), MERS-CoV (Middle East respiratory syndrome) and SARS-CoV-2 (COVID-19).

The novel coronavirus SARS-CoV-2 was identified as the causative agent of a number of atypical respiratory diseases in the Hubei province of Wuhan, China, in December 2019. The disease SARS-CoV-2, called COVID-19, has been officially announced. A pandemic declared by the World Health Organization on March 11, 2020. The global infection has reached unprecedented proportions. All of humanity is faced with one problem – a new coronavirus infection.

Scientific novelty of the dissertation research by Khaidarov S.Zh. in the study of antiviral drugs with different pharmacological dynamics and effects and one hormonal drug on the regional strain of SARS-COV2 - SARS-CoV-2/human/KAZ/B1.1/2021. Fabiflu, tenofovir and dexamethasone were chosen as antiviral drugs.

The presented work was carried out based on the Research Institute for Biological Safety Problems, within the framework of the grant-funding project AP09058338 “Studying the antiviral activity of drugs against the SARS-COV-2 virus IN VITRO and conducting a molecular epidemiological analysis of circulating COVID-19 strains.”

The dissertation author has successfully formulated the objectives consistently and successfully achieved the goal of the research. The main provisions of the work are fully reflected in its publications. The content of the dissertation fully fits into the declared scientific specialty. All provisions of the work have the necessary novelty, theoretical and practical significance.

Based on the dissertation materials, 9 works were published, among which 2 articles were in foreign peer-reviewed scientific publications, indexed in the

databases Web of Science and Scopus, with a non-zero impact factor, 2 articles recommended by SHEQAC, MSHE RK, and 5 abstracts of reports at international conferences .

In the process of working on his doctoral dissertation, Khaidarov S.Zh. proved himself to be a responsible, hardworking and proactive young scientist, capable of independently solving scientific problems.

Taking into account all of the above, I believe that the dissertation is a completed scientifically qualified work that meets the requirements for PhD dissertations, and its author, Khaidarov Saken Zharkynovich, deserves to be awarded the degree of Doctor of Philosophy (PhD) in specialty 8D05110 - Virology.

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