

**Press Release**

 Thessaloniki, 25.4.2023

**Novel chemical inhibitors of SARS CoV-2 virus**

Coronavirus disease 2019 (COVID-19) is caused by a new, highly pathogenic severe-acute-respiratory syndrome coronavirus 2 (SARS-CoV-2) which infects human cells through its transmembrane spike (S) glycoprotein.

The receptor-binding domain (RBD) of the S protein interacts with the angiotensin-converting enzyme II (ACE2) receptor of the host cells. Therefore, pharmacological targeting of this interaction might prevent infection or spread of the virus.

Researchers from the Centre of Research and Technology Hellas (Dr. S. Petrakis, Dr. P. Daras and Dr. K. Stamatopoulos), the National Hellenic Research Foundation (Dr. T. Calogeropoulou, Dr. M. Koufaki and Dr. D. Papahadjis), the Democritus University of Thrace (Prof. Dr. I. Karakasiliotis) and the National and Kapodistrian University of Athens (Prof. Dr. V. Gorgoulis**) identified novel chemical inhibitors of SARS-CoV-2.**

The researchers performed a virtual screening for the identification of small molecules against S-ACE2 interaction and validated their effect using cell-based assays. **Two molecules strongly prevented infection from SARS-CoV-2 suggesting that they effectively suppress S-ACE2 interaction.** These chemical compounds will be used for the development of novel antivirals against SARS-CoV-2 or other viruses which enter human cells through the ACE2 receptor.