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A Covalent Protein Inhibitor For Sars-Cov-2

Tech ID: 34430 / UC Case 2020-231-0

TECHNOLOGY DESCRIPTION

This invention introduces a groundbreaking covalent protein inhibitor designed to irreversibly bind to the spike (S) protein of SARS-CoV-2, effectively preventing viral infection. Currently at the proof-of-concept stage, the technology has demonstrated irreversible binding of the inhibitor to the virus in laboratory studies. Unlike existing therapeutic approaches based on the noncovalent binding of ACE2 extracellular domain proteins, this innovation utilizes a novel covalent mechanism, offering “infinite affinity” with zero off-rate. This unique approach ensures complete and long-lasting inhibition of the virus, paving the way for a safe and efficient antiviral drug with potential applications in both prophylaxis and treatment of COVID-19.

STAGE OF DEVELOPMENT

proof-of-concept

RELATED MATERIALS

DATA AVAILABILITY

PATENT STATUS

Country	Type	Number	Dated	Case
European Patent Office	Published Application			2020-231
Patent Cooperation Treaty	Reference for National Filings	WO2022/232377	11/03/2022	2020-231

Additional Patent Pending

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OTHER INFORMATION

CATEGORIZED AS

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