New COVID-19 Treatment Developed by Skymount Medical in Partnership with LSU Approved for Use in Patients in the United Kingdom

LSU Media Center

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BATON ROUGE – Skymount Medical, a drug discovery company using an artificial intelligence, or AI, platform developed by LSU researchers to repurpose and build new drugs, announced today that it has received approval from the United Kingdom's Medicines and Healthcare products Regulatory Agency, or MHRA, to conduct a human clinical trial of its new oral therapeutic for COVID-19 patients. MHRA serves in a role similar to the U.S. Food and Drug Administration for the U.K.

The study will be a double-blind intervention comparing a two-drug combination and a single antiviral drug to a placebo. It will determine the impact these therapies will have on the length and severity of COVID-19 symptoms.

The two-drug combination was discovered using the DeepDrug AI platform and is comprised of a cancer medication that has already been approved by the United States Food and Drug Administration, or FDA, and an FDA-approved anti-parasitic agent. Designed to address both the viral load and the inflammatory aspects of COVID-19, the treatment has shown up to 97 percent efficacy in reducing the amount of SARS-CoV-2, the virus that causes COVID-19, in cell and animal studies.

"This is a significant milestone for Skymount Medical, the LSU DeepDrug AI platform, and patients suffering from mild-to-moderate COVID-19," said Kishor Wasan, chief medical and scientific officer at Skymount Medical. "There are limited oral medication options to alleviate COVID-19 symptoms in adult patients who are not hospitalized, and our drug combination or single drug would be administered at the first sign of infection, reducing the amount and duration of symptoms, and allowing patients to avoid hospitalization. With our drug combination already in a human pilot study in the United States, we are pleased to expand the reach of this combination therapy internationally."

"Receiving MHRA approval for U.K. clinical trials is very exciting," said Supratik Mukhopadhyay, DeepDrug team leader and professor in the LSU Department of Environmental Sciences. "Getting to this point this quickly demonstrates the power of AI and our DeepDrug platform. Our AI was trained to recognize similarities between existing drugs and anti-viral peptides, which target coronaviruses, and was then tested on unseen pairs where it achieved an accuracy of 97.28 percent—unrelated to the efficacy of the drugs themselves. Next, we asked the AI to predict which FDA-approved drugs could act in a similar way, and found several good candidates, with one of the most promising combinations now entering human trials in the U.K."

About DeepDrug

The DeepDrug artificial intelligence platform was developed by an interdisciplinary team of LSU researchers led by Supratik Mukhopadhyay, professor in the LSU Department of Environmental Sciences, and Michal Brylinski, associate professor in the LSU Department of Biological Sciences with a joint appointment in the LSU Center for Computation & Technology. The DeepDrug platform uses several key components to deliver a state-of-the-art compound and formula generation capability that greatly reduces the time and cost associated with traditional drug discovery.

About Skymount Medical

Skymount Medical is a technology company that uses DeepDrug, a patent-pending artificial intelligence platform, to drastically reduce drug discovery time. Alongside LSU, the company is currently developing combination therapies to fight COVID-19 and all coronavirus strains, including SARS, MERS, SARS-CoV-2, and future SARS-CoV variants. In addition, Skymount Medical is planning to develop therapeutics for other infectious diseases as well as new antibiotics that target antibiotic-resistant bacteria and rare diseases, such as amyotrophic lateral sclerosis, or ALS, and multiple sclerosis, or MS.

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