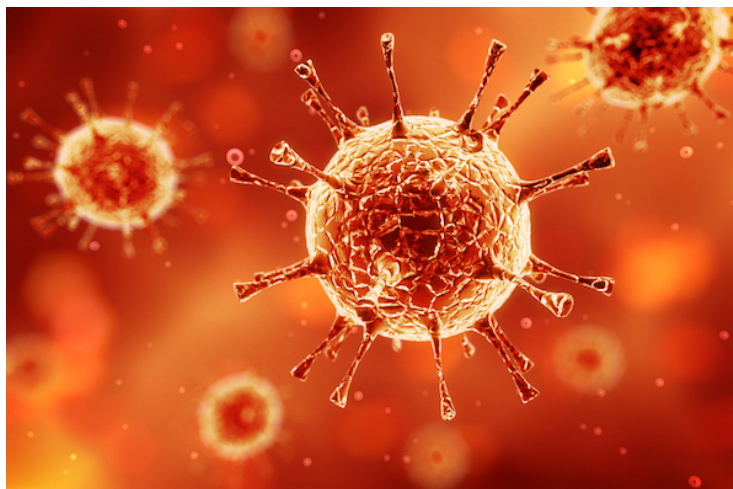


SNU offers potential cure for COVID-19

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The molecule has the potential to be developed into a drug that can cure Acute Respiratory Distress Syndrome (ARDS) in COVID-19 patients



UP based Shiv Nadar University (SNU) has announced a potential breakthrough solution in the global battle against COVID-19. A team of researchers led by Dr Subhabrata Sen from the Department of Chemistry, Shiv Nadar University, India along with his collaborator Professor Ralf Jockers, Institut Cochin (*INSERM, CNRS, Université de Paris, France*), has discovered a set of New Chemical Entities (NCEs) with the ability to cure Acute Respiratory Distress Syndrome (ARDS) or Acute Lung Injury (ALI) induced by COVID-19 (SARS-CoV-2) or other Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS), which are also caused by coronaviruses.

The two-fold strategy devised by the research team involved (a) application of the NCEs to inhibit attachment, entry and infection of the new SARS-CoV-2 through a known target on the virus; and (b) co-administration of a known drug (that modulates a set of hormonal receptors in human) and these NCEs to attenuate ARDS caused by SARS-CoV-2. The researchers believe their therapy would not only prevent COVID-19 from affecting a person's lungs, but will also address lung injuries already inflicted by the virus, in cases the ventilators are either not proving effective or are not available altogether, bringing much relief to COVID-19 patients suffering from ARDS.

The discovery has come out of months of research conceptualizing small molecule modulators of a set of hormonal receptors in humans and how they are connected with potential receptors in the lungs that act as entry of SARS-CoV-2, SARS and MERS in the human host.

Additionally, the researchers looked into the pathophysiological condition of lungs during respiratory failure. This included extensive investigations of lung specimens from patients who were retrospectively found to have COVID-19. Using these data, the researchers designed the project that helps in attenuating acute respiratory distress.