BioSpectrum
the business of Bi
24 years of leveraging the business of Bio
www.biospectrumindia.co

International consortium embarks on $57 M project to test inhaled, nasal vaccines against viral infection

12 March 2024 | News

Five-year Mucosal Immunity in human Coronavirus Challenge (MusiCC) project will be led by Imperial College London



An international consortium of researchers specialising in human challenge studies is embarking on a $57 million project to develop advanced, virus-blocking coronavirus vaccines that could stop SARS-CoV-2 and other coronaviruses from infecting people in the first place.

Led by Imperial College London and co-funded by the European Union's Horizon Europe Programme and the Coalition for Epidemic Preparedness Innovations (CEPI), the consortium of more than a dozen scientific teams and organisations will begin by running trials to select particular viruses and identify the best conditions under which to safely induce infection in healthy volunteers.

Researchers at multiple clinical research facilities will use a selected virus to try to infect healthy volunteers who have received an experimental vaccine. Unlike traditional vaccines which are injected into muscle, these experimental vaccines will be inhaled into the lungs or sprayed in the nose and are designed to induce a type of protection known as mucosal immunity, which scientists believe could be the key to stopping onward transmission of coronaviruses.

Using harmonised standard operating procedures, the trials will take place across several sites in the UK, Europe, the United States and Singapore and will each involve a small group of young, healthy volunteers. In the challenge trial, volunteers will first receive either a dose of an investigational vaccine designed to provide mucosal coronavirus immunity or placebo before being intentionally exposed to a calibrated dose of SARS-CoV-2. A model using a seasonal coronavirus called OC43 is also being developed for similar use.