

Imperial College London news release

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### **Imperial College London social enterprise to accelerate low-cost COVID-19 vaccine**

Imperial College London has formed a new social enterprise VacEquity Global Health (VGH) to bring its COVID-19 vaccine to the world.

For the UK and low-income countries abroad, Imperial and VGH will waive royalties and charge only modest cost-plus prices to sustain the enterprise's work, accelerate global distribution and support new research.

The social enterprise's mission is to rapidly develop vaccines to prevent SARS-CoV-2 infection and distribute them as widely as possible in the UK and overseas, including to low- and middle-income countries.

It is supported by Imperial and Morningside Ventures.

Morningside is a leading global life science investor founded in 1986 by the Chan family of Hong Kong. In philanthropy, the family's long-standing commitment to public health is exemplified by its gift to the Harvard T.H. Chan School of Public Health. As a venture investor, Morningside starts and builds world-class companies to develop innovative science for the public good.

Morningside and Imperial are also launching a separate startup company VaXEquity (VXT), to develop the underlying self-amplifying RNA technology to treat other health conditions beyond the current pandemic.

The two new ventures are built upon years of research of Professor Robin Shattock who pioneered the technology of self-amplifying RNA.

For COVID-19, the technology is used to deliver genetic instructions to muscle cells to make the 'spike' protein found on the surface of the coronavirus. This evokes an immune response in the host to produce immunity to the SARS-CoV-2 virus.

The COVID-19 vaccine will enter phase one/two human trials on 15 June with 300 people. A further efficacy trial involving 6,000 people is planned for October.

If these human trials are successful, the Imperial vaccine can be distributed in the UK and overseas early next year.

This is possible because the self-amplifying RNA technology lends itself to rapid manufacturing scale-up. A large amount of vaccine doses can be made in manufacturing facilities with a small footprint.

The team's supply chain and manufacturing partners will be ready to produce tens of millions of vaccines from early 2021.

UK government and philanthropic funding has been essential to the development of Imperial's COVID-19 vaccine to date, with more than £40 million of public money augmented by £5 million from donors.

This support helped Professor Shattock's team obtain COVID-19 genetic code from China and develop a vaccine candidate to test on animals and prepare for human trials within 14 days in January.

UK residents will be among the first to benefit from access to the vaccine, should trials succeed.

**Professor Robin Shattock, Head of Mucosal Infection and Immunity at Imperial College London, and co-founder of both VGH and VXT, said:** “We have spent an intense six months to fast-track our vaccine to the clinic, now we are ready to combat the virus through our clinical trials. We are grateful to the thousands of people helping us advance the vaccine: from donors, investors and the government to volunteers for our clinical trials. These new enterprises are the most effective way for us to deliver COVID-19 vaccines quickly, cheaply and internationally, while preparing for future pandemics.”

**Professor Alice Gast, President of Imperial College London, said:** “These new UK enterprises will fight disease, create thousands of jobs and fast-track scientific advances. We are determined to both defeat the current coronavirus and improve the world’s readiness to fight pandemics for generations to come.

“Professor Shattock’s team show Imperial at its best: turning cutting-edge discoveries into practical applications that improve lives. We are proud of, and grateful to, the many researchers, students, taxpayers, philanthropists and investors who have helped us reach this promising stage.”

**Gerald Chan, co-founder of Morningside, said:** “No medical intervention has saved more lives in human history than vaccines. The Imperial vaccine technology is a ground-breaking innovation that is readily scalable. This technology has been developed with scientific rigor and a regard for manufacturing scale that is required for any solution to the present pandemic.”

**Chair of the UK Vaccine Taskforce Kate Bingham said:** “The progress being made in the UK to develop a vaccine that combats coronavirus is remarkable and the speed with which Imperial has progressed its self-amplifying mRNA vaccine has been breathtaking. Imperial’s technology shows great promise, so I welcome this further move to accelerate development of a potential vaccine.

“The UK’s Vaccines Taskforce will continue to work closely with Imperial and its new social enterprise and will ensure that they receive the support needed to accelerate the clinical development, manufacture and launch of its promising vaccine.”

Researchers at Imperial, a world top ten university, have been central to global efforts to understand and fight the novel coronavirus, from warning of its deadly contagion in January and accurately projecting its spread to new advances in virology, testing and ventilation.

The College’s COVID-19 Response Fund has allowed hundreds of donors, including alumni and members of the public to support this work across all four Imperial faculties.

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