

Imperial College
London



**LEADING THE
GLOBAL FIGHT
AGAINST COVID-19**

With your support, Imperial teams have been
at the forefront of the international response.



Dr Chloe Bloom (National Heart and Lung Institute), is exploring factors that may be associated with the apparent reduced risk of COVID-19 in people with asthma.



Professor Clare Lloyd (National Heart and Lung Institute), is leading an investigation to understand why children seem to be at a considerably reduced risk of disease and of developing severe complications.



Professor Nick Jones (Department of Mathematics), is mapping public acceptance of a COVID-19 vaccine to help Public Health England create effective communications.

The difference you make – in numbers.

£610,000

has been raised by **900** supporters like you, helping to fund **39** critical, life-saving research projects.

50,000

disposable visors are being produced by Imperial volunteers for the NHS front line.

2,000+

Imperial students and staff have been volunteering on the front line at five NHS hospitals across west London.

“
Across the College, our staff and students – spurred on by the **generous support** of philanthropists – are coming together to tackle this urgent crisis.”

Professor Nick Jennings,
Vice-Provost
(Research and Enterprise)

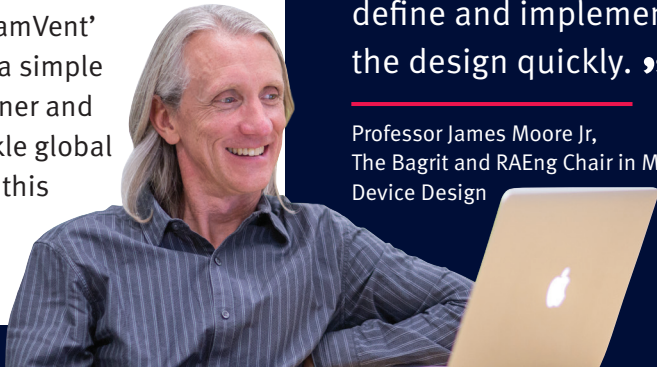
**Coming up
this September...**

Professor Nick Jennings will be hosting an event with some of our researchers. Look out for your invite!



Mass producing cheaper ventilators.

30 per cent of all patients hospitalised with coronavirus develop severe pneumonia and require mechanical ventilation, and 800,000 ventilators are needed worldwide to deal with the COVID-19 outbreak. In response, Imperial engineers and clinicians led by Professor James Moore Jr are mass producing cheaper ventilators for the NHS and patients worldwide. The innovative 'JamVent' design uses a simple 2-litre container and will help tackle global shortages of this life-saving equipment.



“ JamVent provides a **simple, low-cost** solution to current ventilator shortages worldwide, particularly for health services in developing countries. Thanks to the sheer dedication of the team we were able to define and implement the design quickly. ”

Professor James Moore Jr,
The Bagrit and RAEng Chair in Medical
Device Design

Diagnosing people earlier.

Professor Molly Stevens' team is developing a rapid and ultrasensitive test that works for both symptomatic and asymptomatic people. Unlike current tests, which lack the sensitivity to detect low viral loads or involve sending samples to a laboratory, QwikZyme can detect the virus in very early stages and is designed for use at the point of care. It produces results in a matter of minutes, and will relieve pressure on overstretched laboratories.



“ Our test design will help us overcome the challenge of detecting asymptomatic carriers, as well as **diagnosing patients much earlier and more quickly.** This would enable patients to be isolated and treated earlier and help control the spread of outbreaks. ”

Professor Molly Stevens,
Professor of Biomedical Materials
and Regenerative Medicine

Protecting frontline workers.

Imperial volunteers are making more than 50,000 disposable visors for the Imperial College Healthcare NHS Trust. An entire floor of Imperial's Translation & Innovation Hub (I-HUB) in White City has been converted to assemble the visors, which will support Trust staff on the NHS front line. More than 6,500 visors have already been delivered to Charing Cross Hospital. Imperial teams also developed, optimised and evaluated the visors to ensure they were appropriate for use.



“
The amazing spirit of innovation, volunteering and collaboration has produced a very high-quality piece of personal protective equipment at a significant scale and **outstanding value.**”

Dr Bob Klaber,
Director of Strategy, Research
and Innovation at Imperial College
Healthcare NHS Trust

Trialling a vital COVID-19 treatment.

Imperial researchers are testing whether an experimental drug can prevent potentially deadly blood clots found in a third of hospitalised coronavirus patients. The team will test the theory that the clots are caused by a hormone imbalance triggered by coronavirus infection. They will also explore whether a class of drug called TRV027 could redress the balance and reduce severe outcomes in patients hospitalised with COVID-19.



“
This project has brought together pathologists, virologists, pharmacologists and researchers who usually focus on heart and circulatory diseases. Drawing on this **range of expertise** will give us the best chance of finding a desperately needed treatment for COVID-19.”

Dr David Owen,
Clinical Senior Lecturer
in Clinical Pharmacology

Thank you.

Your generous donations to Imperial's COVID-19 Response Fund are giving Imperial teams the space and flexibility to create bold solutions. With your help, Imperial academics are at the forefront of efforts to advise the public and policymakers, understand the disease, develop new vaccines and create new diagnostic tests.

Your support in action.

Get the latest on the response to COVID-19

www.imperial.ac.uk/giving/covid-update