

# The Pandemic Sciences Institute

*Translating research into real-world solutions*





Oxford's groundbreaking medical research draws heavily on its extensive partnerships with researchers and front-line clinics across the globe.

## Overview

Oxford has made an unparalleled contribution to the global COVID-19 pandemic response, not least through its successful development of the Oxford AstraZeneca vaccine. The University is building on the scientific leadership it has shown during the pandemic to establish a new Pandemic Sciences Institute, with the simple aim of making the world safer by creating solutions to identify and counter pandemic threats.

The Pandemic Sciences Institute will be distinguished by its forward thinking, its ability to blend disciplines, its partnerships in academia, industry and governments, a capacity for rapid decision-making and intervention, and its worldwide perspective. Our goals are; to reduce the risk of epidemics occurring; to reduce the risk of epidemics becoming pandemics; and to reduce the health, social and economic impact of epidemics and pandemics whenever and wherever they occur.

The Pandemic Sciences Institute will accelerate and expand the University's capacity to identify and assess biological risks, develop diagnostics, treatments, vaccines, technologies and tools to prevent and mitigate threats, and understand pathways to solutions. The project will be informed by decades of experience and a powerful and nuanced understanding of the origins, behaviour and full impact of modern pandemics. Drawing upon our

existing overseas programmes and partnerships, we will initiate a worldwide network of international research hubs to address the threat of emerging pathogens, in partnership with G7 colleagues, backed by a dynamic and powerful hub in Oxford.

This will address the economic, moral and ethical issues relating to pandemic control. Our leadership, scientific reputation and partnerships provide us with the convening power to bring together academic and commercial partners to drive forward excellent research and innovation to support governments in preparing for future outbreaks, as with the UK Pandemic Science Initiative (UK-PSI) for example.

The institute's director, Professor Sir Peter Horby, led the establishment of the UK-PSI network uniting the universities of Edinburgh, Liverpool, Warwick, Oxford, Cambridge, the Crick Institute Imperial College London, London School of Hygiene and Tropical Medicine and the MRC University of Glasgow Virus Research Centre. The UK-PSI's goal is to protect people from epidemic and pandemic infection diseases through scientific discovery and innovation. It will adopt a mission-oriented approach to ensure impact in strategically important areas and provides a focal point for academic interaction with the UK Government, the UK Health Security Agency and the private sector.



Oxford's world-leading experience in fighting deadly diseases will lead to critical breakthroughs in the treatment and prevention of future pandemics

## Global impact through research excellence

The goals of the Pandemic Sciences Institute are to:

### 1. Accelerate understanding and insight

We will generate actionable knowledge and data (from pathogens through to patients and populations), as early warning (not lagging) indicators in near 'real-time' and make this vital research globally accessible.

### 2. Translate research into real-world solutions

We will create and deploy effective, acceptable and equitable health technologies and interventions, including digital tools, diagnostics, treatments, and vaccines.

### 3. Enhance health security, confidence and trust

We will identify ways to strengthen societal and political engagement, resilience, and responsiveness to the kind of vast public health issues that arise in pandemics.

Bringing the Pandemic Sciences Institute to fruition will require philanthropic investment in two main areas: the physical infrastructure to provide the best tools and resources for innovative research at the very highest level; and the people whose commitment and expertise will drive the breakthroughs and build the knowledge base for decades to come.

## Pandemic Sciences Institute: building

A physical hub for the Pandemic Sciences Institute will be a vital step in bringing together the broad range of Oxford's expertise, and in fostering the

continued collaboration, innovation and agility that has characterised the University's unprecedented response to the COVID-19 pandemic.

## Pandemic Sciences Institute: people

Excellent scientific leadership is essential for success. The institute will be run by senior academics and associate professors who have spent their careers becoming experts in their fields and excelled as leaders during the COVID-19 pandemic. Philanthropic investment in fully funded scholarships for the brightest graduate students from around the world is also crucial, and will enable us to prepare future leaders in global health for the benefit of countries and communities around the world.

## Conclusion

Oxford's ambition is to ensure that society is better prepared, and more agile in its response to future pandemics. While we have already secured philanthropic support for the Vaccines Research Building, and other central institute activities, much still remains to be done to realise our full vision.

We are committed to helping transform the global research landscape in emerging infections and pandemic preparedness, and to help ensure the continued health of future generations. The endowment of the Pandemic Sciences Institute will sustain its crucial work through the support of research posts, scholarships, technology and infrastructure.



Images: front cover; p2, Rob Judges Photography / Oxford University Images; p3, Oxford University Images; p4, Elizabeth Nyikos



Registered with  
**FUNDRAISING  
REGULATOR**

