



Australian Government



THE PRIME MINISTER'S PRIZES FOR SCIENCE

Professor Edward C. Holmes FAA FRS

University of Sydney, New South Wales

2021 PRIME MINISTER'S PRIZE FOR SCIENCE

- Professor Edward C. Holmes is the global authority on the evolution of viral diseases.
- For almost 30 years, he has pioneered the study of how viruses evolve and jump between species, including humans, to spread and cause disease. His work has laid the foundations for the study of virus evolution, ecology and emergence.
- Using genome sequence data, he has helped determine the origin and spread of major human and animal pathogens, including hepatitis C, HIV, influenza, West Nile, dengue, Zika and Ebola.
- Professor Holmes played a transformative role in the scientific response to COVID-19. In early 2020, he was the first person in the world to publicly share the virus' genome sequence.
- Sharing this data was critical in helping the global response to the pandemic. It fast-tracked research efforts around the world and enabled work on designing a vaccine to begin within days, saving countless lives.
- He is now at the forefront of research on the origins and evolution of COVID-19.
- Professor Holmes' research continues to generate knowledge that is critical to the control and prevention of infectious diseases. He has helped develop the computational tools that enable precise tracking of the spread and evolution of viruses.
- He also pioneered the use of phylogenetic methods to reveal the fundamental mechanisms of how viruses evolve and spread through populations.
- Professor Holmes works in the Sydney Institute for Infectious Diseases and the Charles Perkins Centre at the University of Sydney. He also holds a joint position with the School of Life and Environmental Sciences and the School of Medical Sciences.
- His work will continue to help protect Australia from existing and undiscovered infections, leading our country and the rest of the world into a new age of biosecurity.
- He is a Fellow of the Royal Society (United Kingdom), a Fellow of the Australian Academy of Science, and an Australian Research Council (ARC) Laureate Fellow.





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CAREER HIGHLIGHTS

- 2021 General Symbiont Award (with Prof. Yong-Zhen Zhang)
- 2020 NSW Premier's Prize for Science & Engineering
- 2017 Fellow, The Royal Society
- 2017 Australian Laureate Fellow, Australian Research Council
- 2017 NSW Premier's Prize for Science & Engineering (Biological Sciences)
- 2017 Fellow, The Royal Society of New South Wales
- 2015 Fellow, Australian Academy of Science
- 2012 Verne M. Willaman Chair in Life Sciences, The Pennsylvania State University
- 2011 Fellow, National Health and Medical Research Council
- 2010 Fogarty International Centre Director's Merit Award to the Multinational Influenza Seasonal Mortality Study Team, National Institutes of Health
- 2010 Faculty Scholars Medal, The Pennsylvania State University
- 2008 Kavli Fellow, National Academy of Sciences
- 2007 Eberly College of Science Distinguished Senior Scholar, The Pennsylvania State University
- 2006 Affiliate Member, Fogarty International Centre, National Institutes of Health
- 2005 Professor of Biology, The Pennsylvania State University
- 2004 University Lecturer in Evolutionary Biology, University of Oxford
- 2004 Tutorial Fellow in Biological Sciences, New College, University of Oxford
- 2003 Scientific Medal, Zoological Society of London
- 2002 Royal Society University Research Fellow, University of Oxford
- 1998 Fellow by Special Election of St. Catherine's College, University of Oxford
- 1994 Wellcome Trust Fellow in Biodiversity Research, University of Oxford