

Clinical Research Strength 01:

Infectious diseases and immunology

The Melbourne Biomedical Precinct has a proud history of leadership in infectious diseases. There are also established partnerships within the Melbourne Biomedical Precinct with global health institutions including the World Health Organization (WHO), the Bill & Melinda Gates Foundation, American Foundation for AIDS Research, National Institutes of Health and The Wellcome Trust.

Main players

- Bio21 Institute
- CSIRO
- CSL Limited
- Dental Health Services Victoria
- Monash Institute of Pharmaceutical Sciences
- Murdoch Children's Research Institute
- The Peter Doherty Institute for Infection and Immunity
- The Royal Children's Hospital
- The Royal Melbourne Hospital
- The Royal Women's Hospital
- St Vincent's Hospital Melbourne
- The University of Melbourne
- Walter and Eliza Hall Institute

Advancing areas of strength

- Developing vaccines for HIV, malaria, tuberculosis, rotavirus research into sexual and reproductive health infections, cervical cancer and human papillomavirus (HPV), and oral diseases.
- Invention and commercialisation of Recaldent (based on a protein in dairy milk) that repairs and strengthens teeth.
- Surveillance and prevention of outbreaks of infectious diseases in Australia and across the region.
- Novel approaches to track and eliminate mosquito-borne diseases, such as dengue and malaria.
- Understanding and tackling antimicrobial resistance (AMR) in hospitals and the community, including 'superbugs', through better diagnostics, genomics and preventing the overuse of antibiotics.
- Reducing the burden of communicable diseases in indigenous communities.
- Health services research, such as reducing risk of AMR by preventing the overuse of antibiotics.
- International programs, policy development and collaboration to build capacity in the Asia-Pacific region to respond to an infectious disease outbreak.

Malaria affects more than 200 million people worldwide: nearly half the world's population is at risk of infection and more than 70 per cent of malaria deaths are of children aged under five. A new NHMRC \$2.5 million Centre for Research Excellence in Malaria Elimination, based at the Doherty Institute, will accelerate new drugs to treat malaria and train the next generation of experts in Australia and overseas.
