

Fast-tracked new COVID-19 projects to fill critical research need

The following projects are designed to shed light on research areas of urgent need for COVID-19 and the virus that causes the infection – SARS-CoV-2 (formerly known as 2019-nCoV). [APPRISE](#) is funding all projects, with some projects (marked with *) receiving additional co-funding from [CREID](#) (NHMRC Centre of Research Excellence in Emerging Infectious Diseases).

Project title	Major research question
Public health and diagnostics	
Point-of-care serological assays for SARS-CoV-2	Can recent exposure to SARS-CoV-2 be detected in blood?
* An evaluation of diagnosis of COVID-19 (nucleic acid testing and viral culture, in-house and commercial)	Which nucleic acid test for SARS-CoV-2 is best?
* Serosurvey of Australian healthcare workers caring for individuals exposed to, or diagnosed with, COVID-19	How at-risk are healthcare workers when using personal protective equipment and what is the prevalence of asymptomatic infection and transmission?
Clinical response	
General Practice and COVID-19	How can primary care surveillance better inform understanding of the impact and management of COVID-19
Sentinel Travellers Research Preparedness Platform for Emerging Infectious Diseases (SETREP-ID), COVID-19 substudy	What immune responses are stimulated by SARS-CoV-2 infection and how long does the virus shed?
Clinical trial for non-severe COVID-19 infection	Evaluate the use of antiretroviral treatment in people with less severe COVID-19 disease
* COVID-19 infection prevention and control	What are the optimal communication strategies for different occupational groups and members of the public regarding appropriate infection prevention and control responses?
Randomized, embedded, multifactorial adaptive platform trial for community-acquired pneumonia	Which treatment options are best for managing severe COVID-19?
SARS-CoV-2 and COVID-19 laboratory research	
* Deep sequencing to better understand the dynamics of within-host viral diversity during prolonged, severe SARS-CoV-2 infection	What, if any, viral diversity accumulates during SARS-CoV-2 infection?
* Improved detection and characterisation of SARS-CoV-2 within infected humans	How does SARS-CoV-2 adapt in an infected person?
* Understanding host response of severe viral pneumonitis	Are there indicators to predict COVID-19 progression to either mild or severe disease?
Ethics, social and community research	
First Nations Community Panels on COVID-19	How can a First Nations-informed perspective of COVID-19 inform better decisions around risk mitigation?
Communications and community engagement	How can APPRISE activities be best communicated to diverse groups?
The ethics of Australia's quarantine choices: Health security, COVID-19, and Christmas Island	How does Australia's quarantining of its citizens and residents during the COVID-19 outbreak cohere with its own policy positions on health security and health security as a public good?
Social research on quarantine measures	What are the impacts of evacuation, quarantine and other social distancing measures?
* The role of bad information and flawed cognition in the spread of disease: the case of COVID-19	What kinds of (dis)information has spread on English and Mandarin language online outlets re: COVID-19, and are there differences? Is it possible to 'inoculate' people against bad information?