

Microbiologists making waves around the South Pacific

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Infectious diseases are a leading cause of morbidity and mortality around the world. The burden of infectious disease is greatest in low- and middle-income settings, where factors such as inadequate access to healthcare, poor living conditions, malnutrition or inability to afford life-saving treatments and vaccines drive higher rates of diseases. We in Australia are very fortunate to have the required resources to combat infectious diseases, although these are not equitably shared. Australian microbiologists are privileged to partner with collaborators in the Southeast Asia and Pacific region, to work together to tackle important causes of diseases locally and globally.

In this issue of *Microbiology Australia*, we highlight infectious diseases of importance in the Southeast Asia and Pacific region, including collaborative projects with Australian Microbiologists. Paul Horwood focuses on Avian influenza H5N1 in the region and its pandemic potential. Jarunee Siengsan-Lamont and Stuart Blacksell take a One Health approach for the surveillance of zoonotic diseases such as Q fever, brucellosis, and Foot and Mouth Disease by using abattoir-based surveillance networks in Laos and central Cambodia. Celeste Donato and colleagues discuss the importance of enteric pathogen surveillance systems to guide prevention and treatment of diarrhoeal diseases in the Southeast Asia and Pacific regions. Harapan Harapan and Allison Imrie explore the movement of mosquito-borne viral diseases between Indonesia and Western Australia and the public health importance of this phenomenon. Meningococcal disease is considered a rare but fatal disease with a proposed low burden in the Asia-Pacific. However, this is believed to be due to the lack of reporting, possibly because case reporting is not always mandatory. In her article, Helen Marshall discusses how we can improve the capability for meningococcal surveillance in the Asia-Pacific.

The issue has an important focus on Papua New Guinea, with two articles. The first, by Richard Bradbury, discusses *Strongyloides*

fuelleborni kellyi, a helminth capable of causing swollen belly syndrome that is endemic to the region, yet is an often neglected and poorly explored infection. Jeffrey Warner and Catherine Rush tackle the important issue of the potential for misdiagnosis of tuberculosis and melioidosis in the tropics including PNG.

Access to local expertise, facilities and equipment and training opportunities for scientists and medical staff are some of the key barriers. We have two articles that address the work done around capacity building in the region. One article is by Ian Marr and colleagues from PRIDA (Pacific Regional Infectious Disease Association), an association of professionals dedicated to improving diagnosis and treatment of infectious diseases in the region. We also have an article by Russell Cole from PPTC (Pacific Pathology Training College) a not-for-profit organisation based in Wellington, New Zealand. He discusses the implementation of container laboratories, mobile laboratories housed in shipping containers used for SARS-CoV-2 testing in Tokelau, Niue, Kiribati and Fiji, with an emphasis on training staff to perform testing locally.

Currently, many countries in the region are overwhelmed by COVID-19, with lack of access to vaccines a major concern. In our hot topic article, Patrick Reading and Dick Strugnell provide their perspective and insight into the current COVID-19 outbreak in Fiji.

We hope you will find this issue fascinating and illuminating, particularly around some of the challenges our neighbours in Southeast Asia and Pacific face. We encourage all our members to consider supporting our friends in region including through organisations such as PRIDA (described above) or initiatives such as GoGiveOne (<https://gogiveone.org/>), a campaign by the WHO Foundation where funds raised will go towards providing COVID-19 vaccines to lower-income countries.

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