



Papua New Guinea  
Institute of Medical Research

## Infection and Immunity Unit

### Immunology

Our experiments look at the ability of the human body to fight infections, especially the response of young babies to vaccines. Pneumonia is a major cause of death in children and older people in PNG and there is no vaccine routinely in use. We hope our work will lead to the introduction of a suitable vaccine before too long.

Our studies include:

- Pneumococcal conjugate vaccine trial – antibody responses to the vaccine

### Virology

The Virology Laboratory conducts research and surveillance projects on non-sexually transmitted infections. The influenza virus is constantly changing so there are many different strains circulating globally.

Our surveillance studies include:

- Rotavirus – causes acute watery diarrhoea which may result in dehydration and death in young children. We work with the World Health Organisation (WHO)
- Influenza - we run the National Influenza Centre for PNG, working with WHO to test samples from patients with suspected influenza virus
- Dengue

### Field and Clinical Team

To carry out studies described above, the field and clinical teams are responsible for ensuring that communities are consulted about the study, that they agree to take part and that they are aware of what the studies involve. Our team also visit health centres and the hospital to see sick children and collect samples.

### Contact us

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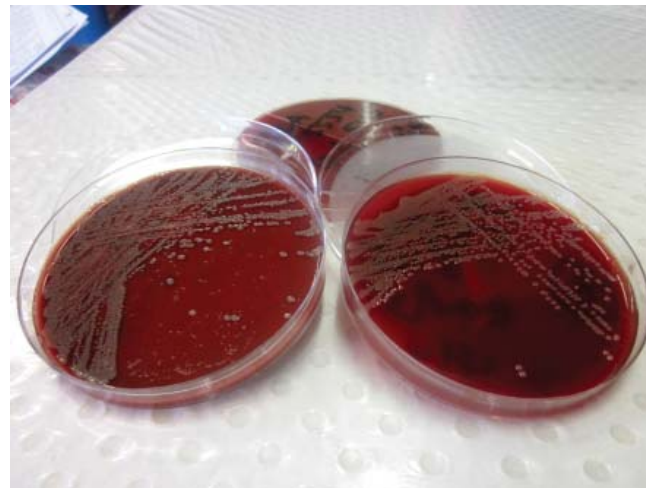
## About us

The Papua New Guinea Institute of Medical Research (IMR) is a world class research facility looking at ways to improve the health of the people of Papua New Guinea.

Our headquarters is in Goroka in the Eastern Highlands and we have laboratories and research sites across PNG, including in Alotau, Hides, Karkar, Madang, Maprik and Port Moresby.

The Institute was established in 1968 as a statutory body. It is governed by a 14-member council that reports to the Minister for Health and HIV/AIDS.

It is headed by the Director, supported by two deputy directors for science and corporate affairs.



## Infection and Immunity Unit

We conduct cross-disciplinary research on the most important infectious diseases in PNG, focusing on respiratory and enteric infections.

Our research into acute respiratory illnesses, diarrhoea and febrile illnesses (those with a fever at onset) relates directly to PNG.

We study pneumococcal vaccines and their suitability for children to inform policy on suitable schedules for PNG. Rotavirus infection in children is another area we are investigating.

We have a field team and three laboratory teams; bacteriology, immunology and virology.

## Bacteriology

Many important diseases in PNG are caused by bacterial pathogens, including pneumonia, diarrhoea, typhoid fever and cholera. Our research leads to the introduction of much needed vaccines and improved diagnosis and understanding of causes of these diseases. Study participants learn about what is making them ill and what treatments are best for them.

Our studies include:

- Pneumococcal conjugate vaccine trial – carriage of bacteria in the nose
- Typhoid diagnostics – evaluating rapid diagnostic tests
- Clinical epidemiology of cholera in PNG
- HIV co-infection
- Nosocomial (hospital) infection control at Eastern Highlands Provincial Hospital
- Burkholderia pseudomallei in PNG – this bacterium can infect humans, animals and plants and causes the infectious disease, melioidosis.
- Osteomyelitis – bone infection in children in Chimbu Province.

