Declared malaria-free in 1981, Australia is one of the only tropical countries in the world to eradicate this mosquito-borne disease. Advances in research and development (R&D), as well as investments in infrastructure to prevent the transmission and spread of malaria, were instrumental in Australia’s success.

Now, the Australian government is taking action to help neighboring countries with malaria prevention and leading broader R&D efforts to eliminate other infectious diseases, including neglected tropical diseases (NTDs) and tuberculosis (TB). Not only do these diseases (collectively, “diseases of poverty”) directly impact health, but they also have immense social and economic consequences. Collectively, malaria elimination by 2030 in Bangladesh, Indonesia, and Papua New Guinea could generate an estimated 20 billion USD (14 billion AUD) in economic benefits.

As a component of overall health system strengthening and capacity building, R&D is needed to improve the arsenal of tools to prevent, diagnose, and treat neglected diseases and reduce the threats they pose to regional health security and economic stability.

Through funding from the Government of Australia, specifically the Department of Foreign Affairs and Trade (DFAT) and IP Australia, BIO Ventures for Global Health (BVGH) and the World Intellectual Property Organization (WIPO) have implemented a research fellowship program to enhance the skills of talented Indo-Pacific researchers and support their contributions to impactful neglected disease R&D initiatives.

As critical contributors to R&D for neglected diseases, scientists in endemic countries have in-depth – and often firsthand – knowledge of these diseases and a strong interest in improving their prevention, diagnosis, and management.

In an interview with BVGH, Patricia Kelly, the former Director General of IP Australia, spoke about Australia’s leadership efforts to build capacity and eliminate neglected diseases in the Indo-Pacific region.

**Q&A**

**Why is Australia investing in health throughout the Indo-Pacific region?**

The Australian Government contributes to a number of key health initiatives with the goal of promoting prosperity and supporting stability within the region. Investment in health innovations and regional health systems is critical to fostering economic stability, growth, and development.

Neglected Tropical Diseases (NTDs)

Neglected tropical diseases are a group of bacterial, parasitic, and viral diseases that disproportionately afflict the world’s poorest communities. Found primarily in tropical and sub-tropical regions, NTDs cause immense suffering and death and represent significant obstacles to economic development. Despite the enormous toll of these diseases, there are a limited number of safe and effective vaccines, diagnostics, and drugs to prevent, detect, and treat them.

*During the Malaria Congress, Patricia Kelly was the current Director General of IP Australia. Patricia retired from IP Australia in August 2018.*
Why are infectious diseases like malaria and tuberculosis of interest to Australia?

Health threats that cross national borders pose significant risk at both regional and global levels. Our closest neighbor, Papua New Guinea, with a population of almost 8.5 million people, has an estimated 1.4 million cases of malaria per year. So malaria is a disease that is very close to us and has the capacity to move into Northern Australia. Investing in health research not only helps Papua New Guinea, but it also helps ensure the health security for Australia and the whole region.

You mentioned the Australian Government investing in key global health initiatives, one of which being the Funds in Trust (FIT) program. How would you describe the FIT program?

The FIT program is a joint capacity building program and a partnership between WIPO and the Australian Government. It is designed to build intellectual property (IP) capacity in less developed countries and help them get some of the benefits of the IP system in terms of focusing on innovation and technology transfer. The research fellowships aim to bring researchers from low- and middle-income countries to Australia and other advanced laboratories to give them exposure to the latest technology, contribute to disease research, and form new partnerships.

What value does the program bring to Australian institutions?

This program is very useful for Australian research institutes because they have the opportunity to engage in international partnerships. There is nothing like having on-the-ground expertise. Scientists need that perspective to understand how to make treatments work and how to formulate effective approaches to technologies like diagnostics and vaccines.

Additionally, Australian scientists enhance their skills in training the next generation of local researchers, improve their competitiveness for grant funding, and inspire new lines of inquiry that could result in the development of valuable intellectual property.

Why are international collaborations important?

We need innovation, collaboration, and partnerships to accomplish goals. The fellowship program is a great model because it involves partnerships between academic institutions, the private sector, and governments. It is a very good model for making progress.

The WIPO Re:Search fellowship program is making a significant impact in the region. Through the most recent iteration of the fellowship program, fourteen fellows will obtain advanced R&D skillsets in Australia, while participating in over 60 months of in-person research collaboration. Upon completion of their fellowship, the fellows return home energized and empowered to develop new tools to better manage neglected diseases in their home countries – effectively reducing threats to Australia’s health security.

By applying the skills learned during their fellowships, fellows are able to establish their own research programs, resulting in economic growth through the creation of new jobs and revenues generated from grants and licensing fees of new innovations.