

# **HOT NORTH: IMPROVING HEALTH OUTCOMES IN THE TROPICAL NORTH**

In less than a year of operation, the *HOT NORTH* research initiative at the Menzies School of Health Research has funded 20 independent research projects, fellowships and scholarships that are rapidly developing the capability and capacity of the health and medical research workforce in the tropical north. Over the next three years, HOT NORTH will continue to expand, funding 36 more projects and providing up to 15 more fellowships and scholarships.



**H**OT NORTH Director, Menzies’s *Professor Bart Currie* envisages that, “by building the capacity of health professionals and scientists in northern Australia, we’re working towards improvements in health outcomes not only for Australia, but also the Asia-Pacific region.

“There’s no better place to be than the north if you want to do tropical research and HOT NORTH is helping high-quality medical scientists and clinicians feel part of a broader movement in the north of Australia,” Prof Currie said.

### TROPICAL DISEASE FOCUS

Darwin-based clinical researcher *Dr Matthew Grigg* exemplifies the capacity-building pathway provided by HOT NORTH. Dr Grigg, who prior to becoming a researcher worked as a medical officer in remote NT Indigenous communities and regional hospitals, is using his HOT NORTH *fellowship* to further develop his research into *Plasmodium knowlesi* (*P. knowlesi*) malaria. This emerging primate malaria, which is transmitted to humans, is commonly found in Southeast Asia and accounts for 70% of malaria infections in Borneo.

In recognition of his ongoing research in the area, Dr Grigg has recently been awarded the *2017 NT Tall Poppy Scientist of the Year* award while also successfully winning a 2018 NHMRC Early Career Fellowship to continue his research into the risk factors, mechanisms, and treatment of *P. knowlesi* malaria.

Dr Grigg, while thanking his mentor and supervisor at Menzies, *Professor Nick Anstey*, said, “this award really is recognition for the work of our whole malaria research team at Menzies and our colleagues in Asia, including *Dr Timothy William*, who is based at our main field site in Sabah, Malaysia where *P. knowlesi* malaria has such a big impact on the local population.

“Through our research we have been able improve our understanding of the treatment and epidemiology of *P. knowlesi* malaria, to change Malaysian and World Health Organization (WHO) malaria treatment guidelines, whilst building the expertise of local research staff.

“With Menzies colleague, *Dr Bridget Barber* we were also the first to compare severe and non-severe *P. knowlesi* malaria to other species, with results also now included in the WHO severe malaria guidelines,” Dr Grigg said.

### FIVE THEMES

Vector borne and emerging diseases is just one important segment of the HOT NORTH research portfolio. The integrated research agenda protects the north from emerging infectious threats and engages regional neighbours, and helps close the gap in Indigenous health disadvantage.

With five key research themes covering skin health, respiratory health, antimicrobial resistance, chronic diseases, and vector borne and emerging diseases HOT NORTH integrates the know-how of researchers from around Australia.



“We are focusing our research so we can fairly quickly translate findings into practical outcomes on issues such as antimicrobial resistance and the concerns about superbugs which are continuing to come into Australia,” Professor Currie said.

“We want to understand where resistant organisms are present geographically across the north, how they are spreading and what can be put in place to reduce that spread.”

### NATIONAL COLLABORATION

Based at Menzies School of Health Research, HOT NORTH utilises a strong collaborative approach between researchers and community, drawing on the expertise of research professionals from eight of Australia’s leading research organisations:

- Menzies School of Health Research
- James Cook University
- Telethon Kids Institute
- Marie Bashir Institute & The University of Sydney
- Doherty Institute & The University of Melbourne
- South Australian Health and Medical Research Institute
- QIMR Berghofer Medical Research Institute
- Burnet Institute

Professor Bart Currie says bringing these expert institutions together is helping to build “a community of medical researchers and clinicians focussed on the north’s critical health issues”.

### SCHOLARSHIPS AND FELLOWSHIPS

A strong component of the HOT NORTH collaboration is to build new research capability. The program annually offers scholarships and competitive research funding for five early- and mid-career Fellowships, each relating to one or more of the five key research themes. Details are available at <http://www.menzies.edu.au/HOTNORTH>

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