



Papua New Guinea: targeting research to things that matter

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The Papua New Guinea Institute of Medical Research (PNGIMR) conducts research into the priority health problems of the people of PNG to improve treatment, control and prevention of disease. PNGIMR research programs encompass vector-borne diseases (particularly malaria), respiratory diseases, sexual health, disease surveillance, infectious diseases and operational (health systems) research. There can be no doubt that this capacity for high quality, evidence-based intervention has had a very positive impact on health in PNG. National malaria treatment policy, development of filariasis and malaria control programs, and

the development of a pigbel vaccine are but a few of the areas in which the Institute's research has been translated into action.

The success of the PNGIMR has been due to an uncompromising attitude towards excellence in science. A crucial factor in maintaining these standards is the training of young PNG research scientists. Currently, there is an acute shortage of postdoctoral PNG scientists who have an internationally competitive track-record of achievement and publication, the ability to attract competitive scientific funding, an interest in research areas of national health priority, and the potential to be research leaders of the future.

Priority must obviously be given to training PNG graduates to fill these gaps. However, it is not sufficient to increase the number of people with postgraduate qualifications by simply allowing them to accept scholarships to work overseas — we must target our graduates' development to the things that matter in PNG.

PNG has two advantages in formulating a PNG-centred research training program. Firstly, the PNGIMR is already carrying out research of acclaimed international standard, focusing on PNG

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health problems. It has many externally funded scientific projects, solid international networks, a high-level publication record, and internationally recognised scientific supervisors. Secondly, the University of PNG (UPNG) is a fast-maturing academic institution with a strong appreciation of the value of research. In September 2004, the two institutions signed an agreement to pool their resources to address the shortage of PNG scientists.

The key to developing PNG health-research scientists is to base their training firmly in PNG, in areas of national importance with long-term potential. The cornerstone of this strategy is using PNGIMR projects as a vehicle for UPNG postgraduate degrees. Our developing model sees graduate students (from UPNG or returning from overseas) being recruited by the PNGIMR and rotated through its laboratories to top up practical skills, then being attached to a project for honours research, under supervision of a PNGIMR scientist, while registered at UPNG. Students who achieve a high standard then register for a masters degree or PhD course, developing the same research themes. Although still focused on PNG, these



students will also spend periods of time in overseas laboratories, learning relevant technologies and expanding their international networks. By the time they complete their PhD they will have built a firm foundation for a career in their chosen area of research and already be established in their PNG workplace. At this stage, they can be insulated for a few years from teaching and administration to develop their own independent program of research.

An important assumption of this model is that it is not always necessary to go outside PNG to get well regarded postgraduate qualifications. As a researcher, the most important things about your PhD are the relevance and novelty of the project, the quality of the work done, the international reputation of your supervisors, and productivity in publishing peer-reviewed papers in international journals. In PNG we have all the components to excel in this area, and the collaboration between the UPNG and the PNGIMR is a landmark step in making a UPNG research PhD an internationally recognised and competitive qualification, with full relevance to the PNG context. □