

APMEN

Vivax Working Group Research Grant Program Round 2



GUIDELINE FOR APPLICANTS

Introduction

APMEN is composed of eleven Asia Pacific Country Partners (Bhutan, China, Democratic People's Republic of Korea, Indonesia, Malaysia, Philippines, Republic of Korea, the Solomon Islands, Sri Lanka, Thailand and Vanuatu) that are pursuing malaria elimination, as well leaders and experts from key multilateral and academic agencies. The mission of this diverse but cohesive Network is to collaboratively address the unique challenges of malaria elimination in the region through leadership, advocacy, capacity building, knowledge exchange, and building the evidence base.

At the inaugural meeting of the APMEN (APMEN I) in Brisbane in February 2009, presentations from all national malaria control programs highlighted *Plasmodium vivax* (*P. vivax*) as the major challenge for malaria elimination in the region. The ultimate goal of the global elimination of malaria will not be achieved without a better understanding of the biology of this complex and resilient parasite, and new tools for its assessment, prevention and treatment. However major advances in rationalising malaria control programs are feasible through the use of existing tools, and a major collaborative approach between country programs, researchers, and policy makers.

Background to *P. vivax* Elimination

The global efforts towards the control and elimination of malaria are based upon two key strategies: early diagnosis and prompt treatment (EDT) and a reduction in transmission of infection from the mosquito host. The deployment of artemisinin combination therapy (ACT) impregnated bed nets and strengthening of healthcare infrastructure, have lead to significant reductions in the burden of malaria reported in many parts of the malaria endemic world. These successes have been documented mainly for infection with *Plasmodium falciparum* (*P. falciparum*). Outside of Africa, the transmission intensity of malaria is generally low, however *P. falciparum* almost invariably co-exists with *P. vivax*, the most widely transmitted of the human plasmodia. *P. vivax* threatens almost 40% of the world's population and causes more than half of all malaria cases outside of Africa with an estimated 132 - 391 million clinical episodes of vivax malaria each year. The public health importance of *P. vivax* is usually underestimated.

Effective control of falciparum malaria in vivax endemic areas usually reveals a substantial hidden burden of vivax malaria. Indeed in areas where intensive control measures have been implemented, the relative proportion of malaria due to *P. vivax* usually increases compared to that from *P. falciparum*. *Plasmodium vivax* is notoriously difficult to eliminate. Our ability to prevent and treat vivax malaria is limited by a poor understanding of the fundamental biology, pathogenesis, transmission, and management of *P. vivax*, which lags far behind that of *P. falciparum*. Under-diagnosis and ineffective treatment impede effective control and clinical management of vivax malaria. Immediate critical challenges for control of *P. vivax* are increasing resistance to chloroquine, with the emerging threat of multidrug resistance, a limited ability to provide radical cure of dormant liver stages, and a poor epidemiologic assessment measures.

APMEN Vivax Working Group (VxWG)

The APMEN Vivax Working Group (VxWG) consists of representatives from the eleven APMEN Country Partners National Malaria Control Programs, partner research institutions, WHO and the APMEN Secretariat. The VxWG will collaborate with APMEN Partner Research Institutions and other key organisations which will ensure that knowledge generated by VxWG will be synthesised and interpreted within the wider context of regional malaria control programs and associated stakeholders.

The overall goal of the APMEN VxWG is to provide an evidence base to inform decision making about optimal vivax surveillance, prevention, and case management. Research to inform better use of existing tools will result in considerable progress on the road to ultimate elimination of malaria. Because of the burden of *P. vivax* associated morbidity in infants and pregnant women, the proposed agenda will have direct relevance towards achieving the Millennium Development Goals 4, 5 and 6. The proposed agenda is also in alignment with the Global Malaria Action Plan, which encourages support of countries pursuing elimination through collection and dissemination of best-practice approaches, research & development for new tools, and funding and technical assistance by partners.

The aim of the VxWG is to develop and coordinate operational research that will provide the evidence base for the successful control and ultimate elimination of *P. vivax* in APMEN countries and the greater Asia-Pacific. The following have been identified as current objectives:

- Identify knowledge gaps and operational research priorities necessary for the optimal control and elimination of vivax malaria
- Share research and operational experience between APMEN countries to maximise synergistic activities and minimise unnecessary duplication
- Fund catalytic research projects to address key knowledge gaps, and facilitate their implementation, analysis and feedback to the Network
- Develop partnerships with key stakeholder involved in the regional elimination for vivax malaria (including but not limited to WHO, MAP, WWARN, MEG, FIND, Asian Vivax Network, research institutions, funding bodies), in order to:
 - Facilitate surveillance strategies to define, monitor, and collate the burden of vivax in APMEN Country Partners
 - Provide evidence for rational diagnostic and treatment guidelines for *P. vivax*
 - Work with APMEN countries and partner groups to develop a series of integrated translational research programs, apply for external funding and facilitate their implementation
 - Work through APMEN to advocate for improved funding of *P. vivax* control and research activities
 - Promote collaborative research partnerships amongst APMEN Country Partners

The VxWG, in close collaboration with the VxWG Coordinating team based at Menzies School of Health Research, supports APMEN countries to undertake research in the area of vivax malaria as part of the APMEN Research Grant Program. In 2011 11 research projects were supported in China, Indonesia, Republic of Korea, Sri Lanka, Vanuatu, Philippines and Malaysia.

About the APMEN Research Grant Program

The VxWG has an indicative budget of AUD\$150,000 to support small to midsize operational catalytic research projects. Proposals can be submitted from individuals/organisations from the eleven APMEN Country Partners (Bhutan, China, Democratic People's Republic of Korea, Indonesia, Malaysia, Philippines, Republic of Korea, the Solomon Islands, Sri Lanka, Thailand and Vanuatu) and must be endorsed by their respective country's National Malaria Control Program.

In 2012, there will be two funding bands for the Research Grant Program:

- Grants up to AUD\$10,000 (to be completed within 6 months)
- Grants between AUD\$10,001 – AUD\$50,000 (to be completed within 18 months)

Round 2 Vivax Research Priorities

The following research priority themes have been identified for Round 2 (Vivax) of the APMEN Research Grant Program. These priorities were set and agreed to by the Vivax Working Group during the Annual Meeting held in Kota Kinabalu, Sabah, Malaysia May 2011. Research Proposals should address at least one of these research priorities:

Theme 1: Diagnostics and Surveillance, specifically in relation to:

- G6PD deficiency, prevalence mapping and new diagnostics
- RDTs to detect *P. vivax* infections
- New diagnostic technologies specifically LAMP
- Sero-epidemiologic studies to define temporal and spatial trends in *P. vivax* transmission
- Case investigations, including cluster randomized trials that would allow optimisation of such interventions and wider applicability throughout the region

Theme 2: Treatment trials of *P. Vivax*, specifically in relation to:

- What is the optimal treatment of blood stages
- What is the optimal treatment of hypnozoites

APMEN Research Grant Program Application Process Round 2 (Vivax)

All applications should be developed in consultation and approval with the respective National Malaria Control Program representative or delegate.

The review and selection process has been designed to be a constructive and crucial element of APMEN's capacity development objective. The APMEN VxWG Coordinating Team will engage with applicants during the application process to strengthen proposals. The VxWG Coordinating team will also work with unsuccessful applicants to develop and improve applications for future rounds.

Applicant Requirements (relative to opportunity):

- 1) Essential:** Active research as evidenced by recent research activities and outcomes and meeting attendance
- 2) Desirable:** At least two refereed publications per annum, averaged over the last three years evidence of competitive grants being sought.

The funding process, review and grant allocation will adhere to the APMEN directives as laid out in this document. Applications for Round 2 (Vivax) of the APMEN Research Grant Program will follow a 4 step process, as outlined below:

Step 1: Submission

Applicants are to submit a **full proposal**. The format for the full proposal will follow the approved APMEN Research Grant format (maximum of 7 A4 pages, including budget, budget justification, project timelines, and appendices). The format can be downloaded from the APMEN website: www.apmen.org

Submission of full research proposals, which should include the following:

- Description of the intended activity and expected outcomes
- Description of project including research question, justification
- Methodology and projected outcomes
- Budget and justification of funding required (1 page)
- A activity plan / timeline (1 page)

In addition to the 7 pages, the application must contain a concise, 2 page CV outlining the research of the applicant and co-investigators.

Step 2: Review

Proposals will be reviewed by selected members of the APMEN Vivax Working Group. Proposals will be reviewed by two reviewers: one from an APMEN country partner, and the other from a partner research institution or a member of the coordinating team. The allocation of reviewers to proposals will be coordinated so as to match the most suitable reviewers with proposals while avoiding conflicts of interests.

The proposals will be reviewed differently for the two funding bands.

- Grants up to AUD\$10,000 can be approved directly by the 3 members of the VxWG Coordinating Team
- Proposal requesting AUD\$10,001 to AUD\$50,000 will be reviewed by 2 internal VxWG members (one Country Partner and one Partner Institution)

Applications will be graded 1-5 by the Vivax Working Group reviewers based on the below criterion. The composite score from the reviewers will be used by the research review panel to prioritise funding.

The Research Review Criteria (refer to *Annex 2 – Criterion Assessment*) covers the following areas:

- Policy Relevance
- Significance
- Capacity Building
- Research design and Methods
- Research team
- Communication and Engagement
- Budget

Step 3: Feedback

Once a review has been completed by the selected members, feedback will be provided to applicants.

Based on the reviews the VxWG coordinating team will recommend and assist applicants in the further development of proposals. Proposals that do not need further development will be sent directly to the Research Review Panel (Step 4).

Step 4: Selection

Once the review process is complete the recommendations will be forwarded to the Research Review Panel which consists of Vivax Working Group Chair (Ric Price,) APMEN Project Co coordinator-Director (Maxine Whittaker) Vivax Working Group Clinical Coordinator (Lorenz von Seidlein). This panel will review the reviewer's recommendations in light of available funds, distribution of research grants within the network and make the final decisions. The review panel will endeavour to fund all themes that fulfil the criteria funding permitting. Where this is not possible because the budget is not sufficient the VxWG Coordinating team will work with applicants /countries to develop proposals for external funding. If there is a lack of

consensus amongst the research review panel, the APMEN Advisory Board may be consulted for advice and dispute resolution. Applicants will be informed of the outcome of their applications by the Vivax Coordinating Team.

Application process and timeline:

Step 1 – Return a completed proposal form to Kylie.Mannion@menzies.edu.au by 22 December 2011

Step 2 – Proposals will be reviewed by in accordance with the review process outlined in this document. The VxWG Coordinating team will provide assistance in supporting applicants submit their proposal and ensuring maximum synergism between APMEN research priorities. To be completed by 30 February 2012.

Step 3 – Feedback will be provided to applicants and queries are answered by applicants by 15 March 2012

Step 4 – Applicants will be informed of the outcome of their application by the Vivax Co-coordinating Team, by March 30 March 2012

The closing date for proposals for Round 2 (Vivax) of the APMEN Research Grant Program is Thursday 22 December 2011.

Applications must be submitted via email by the closing date to the
Vivax Working Group Program Coordinator at: Kylie.Mannion@menzies.edu.au

Late or incomplete applications may not be accepted.