

**e-ASIA Joint Research Program (e-ASIA JRP)
The review results of the 12th Call for Proposals
in the fields of “Climate Change and Health Research”**

It is our great pleasure to announce the selected projects of the e-ASIA Joint Research Program (e-ASIA JRP*¹) 12th Call for Proposals in the fields of “Climate Change and Health Research”.

A total of 34 proposals was submitted in response to the 12th joint call for proposals. After careful consideration based on the joint review results by the eight funding organizations from seven countries participating in the call*², the following four collaborative projects were selected for support with the approval of the e-ASIA JRP Board. Support to the projects will continue for three years.

“Eliminating *S. mekongi* – the final push”

to be conducted jointly by:

Australia: Catherine Gordon, Professor, The Council of the Queensland Medical Research Institute

Lao PDR: Somphou Sayasone, Doctor, Head of Department, Lao Tropical and Public Health Institute

Cambodia: Virak Khieu, Doctor/Deputy-Director of National Centre for Parasitology, Entomology, and Malaria Control, Ministry of Health

Japan: Megumi Sato, PhD/Associate Professor, Niigata University

This cooperative research project aims to eliminate *Schistosoma mekongi* in Lao PDR and Cambodia by using an intensive multi-component “One Health” approach. Climate prediction models show that the Mekong region will be significantly impacted by climate change leading to extending transmission season of *S. mekongi*, as well as shifting or expanding habitats. Thus, now is the critical time to eliminate *S. mekongi* before the effects of climate change are felt.

“Uncovering the burden of asymptomatic malaria: dissecting immune responses to infection to overcome immunosuppression and improve vaccination strategies”

to be conducted jointly by:

Australia: Diana Silvia Hansen, Prof/Laboratory Head, Monash Biomedicine Discovery Institute

Indonesia: Indra Wibowo, Dr/Assistant Professor, School of Life Sciences and Technology, Bandung Institute of Technology

Japan: Takafumi Tsuboi, Distinguished Professor, Ehime University

USA: Stephen Hoffman, Chief Scientific and Executive Officer, Sanaria Inc.

This cooperative research project aims to undertake a comprehensive immunological and molecular analysis of individuals experiencing asymptomatic malaria in an endemic area of Indonesia. The project will uncover that these non-febrile infections cause strong immunosuppression, are not benign as previously thought, and prevent the host to efficiently control infection and respond to immunization. Our research will also allow us to identify critical immune responses to eradicate these persistent infections through innovative attenuated whole parasite vaccination strategies.

“Nontuberculous mycobacterial (NTM) infections associated with climate change and major weather events: enhancing surveillance and mitigation strategies”

to be conducted jointly by:

Australia: Rachel Thomson, Professor/Lead, Mycobacterial Diseases & Bronchiectasis Research Unit/Head, Greenslopes Clinical Unit, The University of Queensland

USA: D Rebecca Prevots, Chief of Epidemiology Unit, National Institutes of Health

Japan: Kozo Morimoto, Principal Research Scientist, Research Institute of Tuberculosis/Japan Anti-Tuberculosis Association (RIT/JATA)

Thailand: Surakameth Mahasirimongkol, Director of Department of Medical Sciences, Ministry of Public Health

Cambodia: Sokleaph Cheng, Deputy head of Medical Biology Laboratory and Head of Laboratory of Mycobacteriology, Institut Pasteur du Cambodge (IPC)

This project will assess and predict the impacts of major weather events and climate changes on NTM incidence and geospatial distribution in Australia, US, Japan, Thailand and Cambodia. Major weather events cause aerosol dissemination of NTM from the environment, resulting in acute increases in human exposure, and further increases in disease occur because of the impacts on drinking water distribution systems (DWDS). Novel therapies will be evaluated to control NTM growth in the biofilm of DWDS to reduce transmission.

“Climate change adaptation to smoke haze for improved child health in Southeast Asia”

to be conducted jointly by:

Australia: Sotiris Vardoulakis, Professor of Global Environmental Health, Australian National University

Thailand: Kraichat Tantrakarnapa, Associate Professor of Environmental Health, and Deputy Dean for Facilities and Environment, Mahidol University

Indonesia: Budi Haryanto, Professor and Director of Environmental Health Science, University of Indonesia

Cambodia: Vannak Ann, Vice-Dean/Lecturer in Hydrology, GIS and Remote Sensing, Institute of Technology of Cambodia

Lao PDR: Keophousone Phonhalath, Assistant Professor, Deputy Head of Environmental Engineering Department, National University of Laos

This interdisciplinary research project aims to assess the effectiveness of climate change adaptation interventions for strengthening community resilience to smoke haze in Southeast Asia, and increasing their adoption and implementation in the region to protect children’s health. The project takes an integrated and multi-sectoral approach to manage the inter-related factors of adaptation interventions, such as early warning systems, clean air rooms, and targeted public health information, in culturally appropriate ways that promote their acceptance and implementation in local communities.

On behalf of the e-ASIA JRP, we would like to offer our sincerest congratulations to the project teams and look forward to the significant impact their results will bring to our society in the future.

*1 The e-ASIA Joint Research Program (e-ASIA JRP)

Through the acceleration of science and technology research exchange and collaboration in the East Asian region, the e-ASIA Joint Research Program (e-ASIA JRP) aims to strengthen research and development capabilities towards resolution of shared challenges across the region, including those associated with materials, alternative energy, agriculture, health research, disaster risk reduction and management, advanced interdisciplinary research towards innovation, and environment. As part of that objective, the e-ASIA JRP intends to support the multilateral collaborative research projects, which must consist of three or more countries.

e-ASIA JRP's homepage: <http://www.the-easia.org/jrp/>

*2 The list of organizations participating in the 12th joint call for proposals in the fields of "Climate Change and Health Research":

- National Health and Medical Research Council (NHMRC), Australia
URL: <https://www.nhmrc.gov.au/>

- Ministry of Health (MOH), Cambodia
URL: <http://moh.gov.kh/?lang=en>

- Ministry of Education, Culture, Research and Technology (DIKBUDRISTEK), Indonesia
- URL: <https://sinta.kemdikbud.go.id/>

- Japan Agency for Medical Research and Development (AMED), Japan
URL: <https://www.amed.go.jp/en/>

- Ministry of Health (MOH), Lao PDR
URL: <https://moh.gov.la/>

- Program Management Unit for Human Resources & Institutional Development, Research and Innovation (PMU-B)
URL: <https://www.pmu-hr.or.th/>

- National Cancer Institute (NCI), USA
URL: <https://www.cancer.gov/>

- National Institute of Allergy and Infectious Diseases (NIAID), USA
URL: <http://www.niaid.nih.gov/>

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