PUBLIC ANNOUNCEMENT

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

Review Results of the 14th Call for Proposals in the Field of Cooperation in Health Research

As of December 15, 2025, the e-ASIA JRP Secretariat together with the participating Member Organizations are delighted to publicly announce the awarded projects from the e-ASIA Joint Research Program (e-ASIA JRP*[1]) in the 14th Call for Proposals in the field of cooperation in Health Research with a focus on the call topic of Infectious Diseases and Immunology (including Antimicrobial Resistance).

This call received a total of 127 proposals, reflecting significant interest and collaboration in this research area. Following a thorough evaluation process, which included joint reviews conducted by ten funding organizations from ten participating countries[*2], the following seven collaborative projects have been selected for support. These projects have been approved by the e-ASIA JRP Board and will receive funding for a duration of three years.

Proposal Number: HE1406

Precision Response to Unexplained Infections by Metagenomic Enrichment and Detection

to be jointly conducted by:

Japan	**Yu Nakagama** Associate Professor, University Public Corporation Osaka
Indonesia	**Muhammad Miftahussurur** Professor/Vice Rector, Universitas Airlangga

USA	**Melissa Nolan** Associate Professor, University of South Carolina

The project aims (i) to discover novel/underappreciated pathogens, synergistic viral interplay, and functional virus-host interactions through metagenomic sequencing (mNGS), and (ii) to verify their pathogenic potential through *in vitro* disease-modeling. The clinical implementation of mNGS will enable detection of *bona fide* pathogens, including coinfecting helper viruses, thereby not only advancing precision medicine approaches for complex infections, but also reshaping our understanding of the pathogenesis underlying fulminant infections. Our approach is translatable to a next-generational molecular diagnostic, strengthening our pandemic preparedness.

Proposal Number: HE1436

The Importance of Targeting Plasmodium Vivax for Elimination of Malaria in the Philippines in the Context of an Ongoing Resurgence and a Diverse Ecological Setting

to be conducted jointly by:

Australia	**Rhea Longley** Dr./Laboratory Head, The Walter and Eliza Hall Institute of Medical Research
Philippines	**Maria Lourdes Macalinao** Dr./Senior Research Specialist II, Research Institute for Tropical Medicine – Department of Health
USA	**Gillian Stresman** Associate Professor, Tenured, University of South Florida

This project aims to generate an evidence-based *Plasmodium vivax*-inclusive strategy to achieve the national goal of malaria elimination by 2030. This will be achieved through use of novel *P. vivax* serological markers that can detect hidden *P. vivax* infections, for both surveillance and for use as an intervention. Key outcomes include updated data on the extent and spatiotemporal variation of *P. vivax* transmission, ecological risk factors, feasibility and usability of novel point-of-care serological tools, and community acceptability of the intervention.

Proposal Number: HE1438

Broad-Spectrum Antiviral Effects and Immune Regulation Mechanisms of Cold Atmospheric Plasma Based on Immunotheranostics

to be conducted jointly by:

China	**Gang Liu** Professor, Xiamen University
Singapore	**Xiaoyuan Chen** Professor, National University of Singapore
Australia	**Erik Thompson** Professor, Queensland University of Technology

Our collaborative research project proposes to pioneer Cold Atmospheric Plasma (CAP) as a broad-spectrum, mutation-independent antiviral therapy against influenza and SARSCoV-2 respiratory viruses. Utilizing the Plasma-Activated Nasal Dispersed Aerosol (PANDA) system for targeted delivery, we will leverage multimodal immune imaging in parallel with cellular and molecular phenotyping to characterize anti-viral CPA therapy and decode the CAP-driven macrophage dynamics, optimize treatment parameters, and enhance plasma-activated media (PAM) stability—advancing a clinically translatable, pandemic ready antiviral strategy.

Proposal Number: HE1494

Development of an Integrative Multiplexed Barcoded Antigen and Single-Cell Multi-Omics Profiling Platform to Investigate Antigen-Specific Systemic Immune Responses to Dengue Virus Infection and Vaccination

to be conducted jointly by:

Thailand	**Ponpan Matangkasombut Choopong** Associate Professor, Mahidol University
Japan	**Yukinori Okada** Dr., RIKEN
Australia	**Alistair Forrest** Associate Director, Harry Perkins Institute of Medical Research

This cooperative project aims to model the immune response to dengue virus and vaccine, leveraging a longitudinal Thai cohorts to profile serotype-specific CD8 T and B cells via single-cell multi-omics. Experts from Thailand, Japan, and Australia will integrate transcriptomic, receptor, and regulatory data to uncover key drivers of severe disease and vaccine response. Insights will guide predictive, targeted, and immunologically informed strategies for dengue treatment and vaccine design.

Proposal Number: HE1496

Nanoparticle-Enhanced Rapid Tuberculosis Diagnostics and Drug Resistance Identification

to be conducted jointly by:

Australia	**Mark Blaskovich** Professor, The University of Queensland
Malaysia	**Chee Wei Ang** Dr., Monash University Malaysia
Indonesia	**Anggia Prasetyoputri** Dr., National Research and Innovation Agency

The project will develop nanotechnologies to identify and characterize Tuberculosis (TB) from clinical samples, making it quicker to diagnose drug-resistant TB (DR-TB) in Southeast Asian countries. These technologies will capture and sequester TB from clinical samples, then use novel chemical probes to rapidly identify DR-TB, with further verification by DNA sequencing. This combined approach will avoid the current time-consuming culture step required for diagnosis, enabling a quick and convenient turnaround to enable more effective treatment.

Proposal Number: HE14106

Integrating One Health Framework and Control Strategies to Mitigate Antimicrobial Resistance Risk Escalated by Climate Change

to be conducted jointly by:

Australia	**Jianhua Guo** Professor, The University of Queensland

Indonesia	**Sunarno** Professor, National Research and Innovation Agency
USA	**Angela Harris** Associate Professor, North Carolina State University
Singapore	**Karina, Yew-Hoong Gin** Professor, National University of Singapore

This cooperative project aims to evaluate how extreme weather events due to climate change affect the development and spread of antimicrobial resistance (AMR) across Asia-Pacific countries, including Australia, Indonesia, Japan, the U.S., and Singapore. Employing a One Health framework, we will quantitively investigate the spatial and temporal dynamics of climate change in shaping AMR patterns and identify intervention strategies to mitigate its impact. Outcomes of this project will inform policies and develop practical approaches to minimize the spread of AMR.

Proposal Number: HE14112

Advancing Broad-Spectrum Antivirals, Diagnostics and Viral Pathophysiology for Encephalitic Flaviviruses

to be conducted jointly by:

Australia	**Suresh Mahalingam** Professor, Griffith University
Singapore	**Justin Jang Hann Chu** Associate Professor, National University of Singapore
Thailand	**Siwaporn Boonyasuppayakorn** Associate Professor, Chulalongkorn University
Indonesia	**Triwibowo Ambar Garjito** Dr./Senior Research Fellow, National Research and Innovation Agency
Malaysia	**Sazaly Abu Bakar** Professor, Universiti Malaya

BSAFE addresses the urgent need for treatments and diagnostics for flavivirus encephalitis, focusing on dengue and Japanese encephalitis—major threats in Asia-Oceania. Collaborating across five countries, we will develop diagnostics, investigate disease mechanisms, and discover antivirals. Molecular tools, antiviral platforms, cell

culture, animal models, and Omics-based approaches will provide pathogenesis insights and guide therapeutic development. Outcomes include better diagnostics, new therapeutic targets, reduced disease burden, enhanced outbreak readiness, and strong international partnerships—supporting therapeutic licensing and training early-career researchers to strengthen global flavivirus response.

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*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 10 Participating Organizations**
In the 14th Joint Call for Proposals in the Field of Cooperation in Health Research:

1) Australia: National Health and Medical Research Council (NHMRC)
https://www.nhmrc.gov.au/
2) China: National Natural Science Foundation of China (NSFC)
https://www.nsfc.gov.cn/
3) Indonesia: National Research and Innovation Agency (BRIN)
https://brin.go.id/
4) Japan: Japan Agency for Medical Research and Development (AMED)
https://www.amed.go.jp/en/
5) Malaysia: Academy of Sciences Malaysia (ASM)
https://www.akademisains.gov.my/
6) Philippines: Department of Science and Technology (DOST-PCHRD)
https://www.pchrd.dost.gov.ph/
7) Singapore: Agency for Science, Technology and Research (A*STAR)
https://www.a-star.edu.sg/

8) Thailand: Program Management Unit for Human Resources & Institutional Development, Research and Innovation (PMU-B)
https://www.pmu-hr.or.th/
9) USA: National Institute of Allergy and Infectious Diseases (NIAID)
https://www.niaid.nih.gov/
10) Vietnam: Ministry of Science and Technology (MOST)
http://www.most.gov.vn

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