

**The e-ASIA Joint Research Program**  
10<sup>th</sup> Annual Activity Report - Summary  
(2021.9 - 2022.9)



e-ASIA JRP Secretariat

Basic Information

This yearly report summarizes the activities of the e-ASIA Joint Research Program during the period from the 10<sup>th</sup> Annual Board Meeting on September 1, 2021 (online) to September 7, 2022.

First Edition:

This report was originally approved on September 9, 2022.

## The e-ASIA Joint Research Program Annual Activity Report – Summary

### Program Administration

#### The 10<sup>th</sup> Annual Board Meeting

1. The 10<sup>th</sup> Annual Board Meeting was held on September 1, 2021, by Zoom virtual platform, Ms. Kaneko, Secretariat General and Mr. Ken Kawabata, e-ASIA Special Program Coordinator served as the meeting's moderators. The Board Members and the representatives, including other participants from 18 out of 22 Member Organizations (MOs) of the Program from 12 out of 14 countries have attended this meeting.
2. The status of the challenges caused by COVID-19 was shared by the Ministry of Science, Technology and Innovation of Malaysia (MOSTI), which included Malaysia's vaccination supply, vaccine hesitancy and the emergence of the new variant.
3. Tentative schedule for the 11<sup>th</sup> Call for Proposals was shared by the Secretariat that was then approved by the Board.

Events	Schedule of 10th call
Open call	15 December 2021
Close call	30 March 2022
Eligibility Check	1 April – 18 April 2022
Review in MOs	25 April – 5 August 2022
Joint Review Meeting (as a part of ABM)	8,9 September 2022
Announcement to applicants	30 November 2022
Contract preparation by each MO	Dec – Feb 2023
Start funding/Implementation	January – March 2023

4. Possible focusing topics for the 11<sup>th</sup> Call for proposals were introduced and discussed. The Board agreed to finalize the call topics by the end of Sep. 2021 by the ad hoc meeting.
5. Discussion on the eligibility and review criteria was held. MOs agreed to explain the clear eligibility (including assessment/review) criteria in the Call Guidelines from the upcoming 11<sup>th</sup> Call for Proposals.

6. The Secretariat provided an update on the number of applications received, deemed to be ineligible and reviewed for the 10th Call for Proposals. The Secretariat informed that the selection of candidate proposals to be made by email voting by the Board Members and the announcement of selection to be made by the end of November 2021.
7. As the introduction of events, the National Institute of Allergy and Infectious Diseases (NIAID) provided an update on the workshop on 'Climate Change impact on human health'. NIAID asked MOs to advise for additional experts to be included in the scientific planning meeting for this workshop. Also, the Secretariat introduced the 10th anniversary of e-ASIA JRP to be held in 2022.

#### The 34<sup>th</sup> ad hoc Board Meeting

8. The 34<sup>th</sup> ad hoc Board Meeting was held via email sent on September 28, 2021.
9. The approved 4 items by Ad hoc Board meeting as the following:
  - 10th Annual Board Meeting Draft Minutes
  - Progress & final report new template
  - 9th Annual Activity Report
  - 10th Call Candidate Proposals to be selected

#### The 35<sup>th</sup> ad hoc Board Meeting













10. The 35<sup>th</sup> ad hoc Board Meeting was held via email sent on November 22, 2021.
11. The approved the revision and the addition request of the Program Statute by Ad hoc Board meeting as the following:
  - Revisions on the current member organizations
  - Addition of request for submission of 'Notification of the change of Member Organization's name' to the Secretariat
  - Addition of request for submission of 'Notification of new Board Member' to the Secretariat
  - Revision on the modalities of The Annual Board Meeting
  - Revisions on 'List of Program-Related Documents'
12. The Secretariat had launched new page on the e-ASIA website in order to help finding the international collaborators, formulating the international teams for participating in the e-ASIA JRP Call for Proposals.

<https://www.the-easia.org/jrp/collaborators.html>

### Member Organizations and Guest Partner

1. List of current Member Organizations and their Board Members and representatives in alphabetical order by country, as of August 2022, is as follows:

\*22 Member Organizations from 14 countries

	Country	Name	Title & Organization
1	 Australia	Prof. Anne Kelso AO	Chief Executive Officer, National Health and Medical Research Council (NHMRC)
2	 Cambodia	Dr. Fidero Kuok	Director General of National Institute of Science, Technology & Innovation, Ministry of Industry, Science Technology and Innovation (MISTI)
3	 Cambodia	Dr. Kheng Sim	Deputy-Director of Communicable Disease Control Department, Ministry of Health (MOH)
4	 Indonesia	(TBD)	Ministry of Education, Culture, Research and Technology (DIKBUDRISTEK) Previous Responsible Organization: Ministry of Research and Technology/ National Research and Innovation Agency (RISTEK/BRIN)
5	 Japan	Dr. Yasushi Ogasaka	Managing Director of Department of International Strategy, Japan Agency of Medical Research and Development (AMED)
6	 Japan	Mr. Shigeo Morimoto	Vice President, Japan Science and Technology Agency (JST) (as the agent of MEXT)
7	 Lao PDR	Dr. Rattanaxay Phetsouvanh	Director General of the Department of Communicable Diseases Control, Ministry of Health (MOH)
8	 Lao PDR	Mr. Southiphong Vongxaiya	Director of Research and Development Management Division; Cabinet of Lao Academy of Science, Ministry of Education and Sports (MOES)
9	 Malaysia	Mr. Teoh Phi Li	Under Secretary of International Division, Ministry of Science, Technology Innovation (MOSTI)
10	 Myanmar	Dr. Phyu Phyu Win	Director General, Department of Research and Innovation (DRI), Ministry of Science and Technology (MOST)
11	 New Zealand	Prof. Sunny Collings	Chief Executive, Health Research Council (HRC)
12	 The Philippines	(TBD)	Department of Science and Technology (DOST)

	Country	Name	Title & Organization
13	 Russian Federation	Mr. Alexander Usoltsev	Head of International Relations, Russian Foundation for Basic Research (RFBR)
14	 Singapore	Prof. Andy Hor	Deputy Chief Executive (Research), Agency for Science, Technology and Research (A*STAR)
15	 Thailand	Ms. Kunvara Chotiphansophon	Deputy Director, Agriculture Research Development Agency (ARDA)
16	 Thailand	Dr. Worajit Setthapun	Deputy Director for Global Partnership, Program Management Unit for Human Resources & Institutional Development, Research and Innovation (PMU-B)
17	 Thailand	(TBD)	Executive Vice President, Thailand National Science and Technology Development Agency (NSTDA)
18	 Thailand	Dr. Wiparat De-ong	Executive Director, National Research Council of Thailand (NRCT)
19	 Thailand	Associate Prof. Dr. Pongpan Kaewtatip	Vice President, Thailand Science Research and Innovation (TSRI)
20	 U.S.	Mr. F. Gray Handley	Associate Director for International Research Affairs, National Institute of Allergy and Infectious Diseases (NIAID)
21	 U.S.	Dr. Paul Pearlman	Program Director, Center for Global Health, National Cancer Institute (NCI)
22	 Vietnam	Ms. Le Thi Viet Lam	Deputy Director General of Department of International Cooperation, Ministry of Science and Technology (MOST)

2. National Science Foundation of Sri Lanka is the Guest Partner organization in the Program since October 2017.

### Joint Calls for Proposals

#### The 10<sup>th</sup> Joint Calls for Proposals

1. The 10<sup>th</sup> Joint Call for Proposals on the topic of “Materials Informatics and Advanced Material Research by Utilizing Computers” in the field of “Materials” opened from December 15, 2020 to March 29, 2021. Out of the 12 proposals submitted, the following four projects were approved by the Board to be supported:

i **“Data-Driven Design of Mechanical properties in Metallic Layered Structures”**

Countries & PIs

Japan	Manabu Enoki	Professor, The University of Tokyo
Singapore	Mark Jhon	Senior Scientist, Institute of High Performance Computing, A*STAR
Indonesia	Fergyanto Gunawan	Associate Professor / Head of Department, Bina Nusantara (BINUS) University

Forms of Funding

Japan	New funds	Japan Science and Technology Agency (JST)
Singapore	In-kind participation	Agency for Science, Technology and Research (A*STAR)
Indonesia	New funds	Ministry of Research and Technology/ National Agency of Research and Innovation (RISTEK/BRIN)

This cooperative research project aims for the design optimization of mechanical properties in metallic layered structures by data driven approach that integrates various computational simulations and information science techniques. Through collaborative and complementary research in Japan, Singapore and Indonesia, this project is expected to construct new material research and development methods in metallic layered structures

ii **“Computational Design of High Entropy Alloys for Catalyst and Battery Applications”**

Countries & PIs

Philippines	Allan Abraham Padama	Professor, University of Philippines Los Baños
Japan	Koji Shimizu	Assistant Professor, The University of Tokyo
Singapore	Teck Leong Tan	Deputy Department Director ,

		Institute of High Performance Computing, A*STAR
Thailand	Tongjai Chookajorn	Researcher, National Metal and Materials Technology Center (MTEC)

#### Forms of Funding

Philippines	New funds	Department of Science and Technology, Philippine Council for Industry, Energy and Emerging Technology (DOST-PCIEERD)
Japan	New funds	Japan Science and Technology Agency (JST)
Singapore	In-kind participation	Agency for Science, Technology and Research (A*STAR)
Thailand	New funds	Program Management Unit for Human Resources & Institutional Development, Research and Innovation (PMU-B)

This cooperative research project aims to computationally design high entropy alloys (HEAs) for catalyst and battery applications. Understanding the nature of HEAs, a new class of multi component materials, will lead to their potential industrial applications. Taking advantage of atomistic calculations and materials informatics methods, we reveal the physical properties of the designed HEAs and evaluate their innovative functionalities.

### iii “Data-driven computational design of high-performance thermoelectrics in atomic layers and topological materials”

#### Countries & PIs

Japan	Fumiyuki Ishii	Associate Professor, Kanazawa University
Thailand	Tosawat Seetawan	Professor, Sakon Nakhon Rajabhat University
Indonesia	Melania S. Muntini	Lecturer, Sepuluh Nopember Institute of Technology



Forms of Funding

Japan	New funds	Japan Science and Technology Agency (JST)
Thailand	New funds	Program Management Unit for Human Resources & Institutional Development, Research and Innovation (PMU-B)
Indonesia	New funds	Ministry of Research and Technology/ National Agency of Research and Innovation (RISTEK/BRIN)

This cooperative research project aims to achieve high performance thermoelectrics based on two dimensional atomic layers and topological materials using cutting edge computational tools assisted by experimental data. By this integrated approach, the project may give better thermoelectric materials design that will contribute to understanding both conventional and exotic thermoelectric materials as well as to the development of new thermoelectric applications.

iv **“Multi-scale Simulations and Design for CO<sub>2</sub> recycling related processes”**Countries & PIs

Japan	Yoshitada Morikawa	Professor, Osaka University
Indonesia	Suprijadi	Professor, Institute of Technology Bandung (ITB)
Thailand	Joongjai Panpranot	Professor, Chulalongkorn University

Forms of Funding

Japan	New funds	Japan Science and Technology Agency (JST)
Indonesia	New funds	Ministry of Research and Technology / National Research and Innovation Agency (RISTEK/BRIN)
Thailand	New funds	Program Management Unit for

		Human Resources & Institutional Development, Research and Innovation (PMU-B)
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This cooperative research project aims to mitigate the global warming problem by designing materials for CO<sub>2</sub> recycling and related processes such as CO<sub>2</sub> capture and hydrogenation, direct methanol fuel cell electrocatalysts and next generation secondary batteries, by using multi-scale computer simulation methods with electronic structure theory and machine learning methods in collaboration with experimental groups.

2. The 10<sup>th</sup> Joint Call for Proposals on the topic of “Infectious Diseases and Cancer” in the field of “Health Research” opened from December 15, 2020 to March 29, 2021. Out of the 34 proposals submitted, the following seven projects were approved by the Board to be supported:

i “Alternative therapeutics to tackle AMR pathogens”

Countries & PIs

Thailand	Tavan Janvilisri	Professor, Mahidol University
USA	Joy Scaria	Associate Professor, South Dakota State University
Australia	Henrietta Venter	Associate Professor, University of South Australia
Philippines	Angelyn Lao,	Associate Professor, De La Salle University

Forms of Funding

Thailand	New funds	National Research Council of Thailand (NRCT)
USA	New funds	National Institute of Allergy and Infectious Diseases (NIAID)
Australia	In-kind participation	National Health & Medical Research Council (NHMRC)
Philippines	New funds	Department of Science and Technology, Philippine Council for

		Health Research and Development (DOST-PCHRD)
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This cooperative research project aims to i) deliver new non-antibiotic therapies to treat multidrug resistant bacterial pathogens and ii) measure the efficacy of these therapies and their impact on AMR. The ultimate goal is to decrease the use of antibiotics and so delay the development of resistance or even to remove resistance mechanisms in bacterial sub-populations.

ii “Ending HIV transmission by Optimizing Pre-exposure prophylaxis in East Asia (HOPE)”

Countries & PIs

Australia	Jason Jiat Shern Ong	Doctor / Head of HIV economics and Health Preference Research, Monash University
Thailand	Nittaya Phanuphak	Executive Director, Institute of HIV Research and Innovation
Philippines	Noel Juban	Professor, University of the Philippines Manila
USA	Weiming Tang	Doctor, The University of North Carolina at Chapel Hill

Forms of Funding

Australia	New funds	National Health & Medical Research Council (NHMRC)
Thailand	New funds	Thailand National Science and Technology Development Agency (NSTDA)
Philippines	New funds	Department of Science and Technology, Philippine Council for Health Research and Development (DOST-PCHRD)
USA	New funds	National Institute of Allergy and Infectious Diseases (NIAID)

This project aims to reduce HIV transmission in East Asia by optimizing the

effectiveness of pre-exposure prophylaxis (PrEP). It establishes a network of regional experts to co-design strategies with key populations in Australia, Thailand and the Philippines. Interventions to optimize adherence among PrEP users will be informed by innovative methods (crowdsourcing, discrete choice experiments) and implemented in each country.

### iii “Promotion of photodynamic medicine for cancer”

#### Countries & PIs

Japan	Shun-ichiro Ogura	Associate Professor, Tokyo Institute of Technology
Indonesia	Anom Bowolaksono	Doctor / Associate Professor, Faculty of Mathematics and Natural Sciences (FMIPA)
USA	Taifo Mahmud	Professor, Oregon State University

#### Forms of Funding

Japan	New funds	Japan Agency for Medical Research and Development (AMED)
Indonesia	New funds	Ministry of Research and Technology/ National Agency of Research and Innovation (RISTEK/BRIN)
USA	In-kind participation	National Cancer Institute (NCI)

This cooperative research project aims to develop a new platform of amino-levulinic acid-based photodynamic medicine that can be used for different purposes, ranging from screening of early-stage cancers, diagnosis, to total treatment of cancers. Simultaneously, we will screen and develop small molecules that can improve the efficiency of photodynamic medicine.

### iv “Development of genome platform for virulence and antimicrobial resistance of *Helicobacter pylori* in ASEAN countries”

#### Countries & PIs

Japan	Yoshio Yamaoka	Professor, Dean of Faculty of
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		Medicine, Oita University
Indonesia	Muhammad Miftahussurur	Vice Rector, Airlangga University
Thailand	Ratha-korn Vilaichone	Professor, Thammasat University Hospital

#### Forms of Funding

Japan	New funds	Japan Agency for Medical Research and Development (AMED)
Indonesia	New funds	Ministry of Research and Technology/ National Agency of Research and Innovation (RISTEK/BRIN)
Thailand	New funds	Thailand National Science and Technology Development Agency (NSTDA)

This cooperative research project aims to develop genome database in ASEAN countries to predict *Helicobacter pylori* (Hp) carcinogenesis and antimicrobial resistance (AMR) using bacterial genome wide association study and in vitro experiments including human gastric organoid system. We will establish genome data platform to identify the virulence and AMR mutations used for individual-level treatment regimens and promote international collaboration.

#### v “Targeting MYCN/NCYM for cancer therapy”

##### Countries & PIs

Japan	Yoshitaka Hippo	Department Head, Chiba Cancer Center
Australia	Tao Liu	Group Leader, The University of New South Wales
Indonesia	Edy Meiyanto	Professor, Gadjah Mada University

##### Forms of Funding

Japan	New funds	Japan Agency for Medical Research and Development (AMED)
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Australia	New funds	National Health & Medical Research Council (NHMRC)
Indonesia	New funds	Ministry of Research and Technology/ National Agency of Research and Innovation (RISTEK/BRIN)

The aim of this project is to develop novel therapeutic strategies for liver cancer by targeting MYCN/NCYM. The effects of anti-cancer agents inhibiting MYCN/NCYM function, obtained either from natural resources or through chemical synthesis, will be examined using patient-derived organoid and mouse models for potential translation into clinical trials. Multi-omics will reveal the molecular mechanisms underlying the tumor suppressive effects.

#### vi “Vector sero-surveillance tools to accelerate malaria elimination”

##### Countries & PIs

Australia	Freya Fowkes	Deputy Director, Malaria and Infectious Disease Epidemiology, Burnet Institute
Thailand	Victor Chaumeau	Head of Entomology Laboratory, Shoklo Malaria Research Unit (SMRU)
Myanmar	Aung Pyae Phyo	Clinician Scientist, Myanmar Oxford Clinical Research Unit (MOCRU)
Cambodia	Sovannaroeth Siv	Malaria Program Manager/ Chief of Technical, Cambodia National Centre For Parasitology, Entomology & Malaria Control
Lao P.D.R.	Phoutnalong Vilay	Vice of unit, Ministry of Health

##### Forms of Funding

Australia	New funds	National Health & Medical Research Council (NHMRC)
Thailand	In-kind participation*	National Science and Technology Development Agency (NSTDA)

Myanmar	In-kind participation	Ministry of Education (MOE)
Cambodia	In-kind participation	Ministry of Health (MOH)
Lao P.D.R.	In-kind participation	Ministry of Health (MOH)

\*Funding modality had been changed from “New” to “In-kind” due to legal issue. (NHMRC, MOE, MOH of Cambodia, MOH of Laos approved by mail based on 10 May 2022)

This cooperative research project aims to develop antibodies to mosquito salivary antigens as tools to measure exposure to malaria vectors and risk of malaria transmission in the Greater Mekong Subregion. We will assess whether these novel sero-surveillance tools can be used to measure the impact of preventive interventions on vector exposure and malaria transmission at an individual and population level.

**vii “Innovative point-of-care diagnostics and environmental surveillance tools for the elimination of Asian schistosomiasis”**

Countries & PIs

Australia	Pengfei Cai	Doctor / SRO, QIMR Berghofer Medical Research Institute
Philippines	Mario Antonio II Jiz	Department Head / Chief Science Research Specialist, Research Institute for Tropical Medicine
Japan	Yasuhito Sako	Professor, Asahikawa Medical University

Forms of Funding

Australia	New funds	National Health & Medical Research Council (NHMRC)
Philippines	New funds	Department of Science and Technology, Philippine Council for Health Research and Development (DOST-PCHRD)
Japan	New funds	Japan Agency for Medical Research and Development (AMED)

This cooperative research project aims to develop inexpensive point-of-care

(POC) diagnostics for Asian Schistosomiasis that are rapid and field-friendly, and to develop innovative environmental DNA (eDNA) detection tools for surveillance of schistosomiasis. Accurate and rapid diagnostics are a key cornerstone for control and elimination of schistosomiasis in Asia. Our research project will develop and trial molecular and immunology based POC, and molecular based eDNA detection methods in a schistosomiasis-endemic area of the Philippines.

3. The 10<sup>th</sup> Joint Call for Proposals on the topic of “Marine Science and Climate Change” in the field of “Environment” opened from December 15, 2020 to March 29, 2021. Out of the 20 proposals submitted, the following four projects were approved by the Board to be supported:

- i. **“Construction of carbon recycling systems to produce alternative fish oil and its application for producing health-beneficial aquacultural and poultry products”**

#### Countries & PIs

Japan	Satoshi Nakai	Professor, Hiroshima University
Indonesia	Soeprijanto	Professor, Sepuluh Nopember Institute of Technology
Philippines	Veronica Migo	Professor, College of Engineering and Agro-Industrial Technology (CEAT), University of the Philippines Los Baños (UPLB)

#### Forms of Funding

Japan	New funds	Japan Science and Technology Agency (JST)
Indonesia	New funds	Ministry of Research and Technology/ National Agency of Research and Innovation (RISTEK/BRIN)
Philippines	New funds	Department of Science and Technology, Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD)



This collaborative research aims to construct carbon recycling systems where the heterotrophic microorganisms, thraustochytrids are cultivated using food and beverage-processed waste and wastewater to produce polyunsaturated fatty acids (PUFAs) such as docosahexaenoic and eicosapentaenoic acids (DHA and EPA) and to demonstrate that the resultant biomass can be used as alternative fish oil to produce PUFAs-enriched aquacultural and poultry products.

ii. **“Application of eDNA metabarcoding in faunal biodiversity assessment of Indo-Pacific mangroves vulnerable to climate change”**

Countries & PIs

Japan	Tadashi Kajita	Professor, University of the Ryukyus
Indonesia	Mohammad Basyuni	Professor, University of Sumatera Utara
Philippines	Venus Leopardas	Associate Professor IV / Acting Dean, School of Graduate Studies, Mindanao State University at Naawan

Forms of Funding

Japan	New funds	Japan Science and Technology Agency (JST)
Indonesia	New funds	Ministry of Research and Technology/ National Agency of Research and Innovation (RISTEK/BRIN)
Philippines	New funds	Department of Science and Technology, Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD)

This collaborative research project aims to develop a standardized biomonitoring tool by using aquatic environmental DNA for Indo-Pacific mangrove ecosystem. The eDNA approach will serve as a new indicator for evaluating species

biodiversity in mangrove ecosystems. Incorporating with Species Distribution Model analyses, the study will provide prediction of species distribution under different climate change scenarios.

iii. **“Marine Heat Waves in the Western Pacific: Detection, Mechanisms and Their Impacts on the Coral Reef Ecosystem”**

Countries & PIs

Indonesia	Anindya Wirasatriya	Assoc. Professor / Secretary of Department, Diponegoro University
Japan	Toshio Suga	Professor / Head of Physical Oceanography Laboratory, Tohoku University
Philippines	Maria Vanessa Rodriguez	Assistant Professor, Marine Science Institute (MSI), University of the Philippines (UP) Diliman

Forms of Funding

Indonesia	New funds	Ministry of Research and Technology/ National Agency of Research and Innovation (RISTEK/BRIN)
Japan	New funds	Japan Science and Technology Agency (JST)
Philippines	New funds	Department of Science and Technology, Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD)

This cooperative research project aims to identify Marine Heat Wave (MHW) events in the western Pacific and investigate their mechanisms and impacts on the coral reef.

MHW is new subject in climate change, characterized by extremely high ocean temperatures that persist for days to months, can extend up to thousands of

kilometres and can penetrate multiple hundreds of metres depth.

iv. **“Enhancing Climate Change Resilience of Social-Ecological Systems in the Coral Triangle and Its Surrounding Areas”**

Countries & PIs

Japan	Rempei Suwa	Ph D. (Sci.) / Senior Researcher, Japan International Research Center for Agricultural Sciences (JIRCAS)
Philippines	Rene Rollon	Professor, Institute of Environmental Science & Meteorology (IESM), University of the Philippines (UP) Diliman
Indonesia	Analuddin	Professor, Halu Oleo University

Forms of Funding

Japan	New funds	Japan Science and Technology Agency (JST)
Philippines	In-kind participation	(Own budget)
Indonesia	New funds	Ministry of Research and Technology / National Research and Innovation Agency (RISTEK/BRIN)

This cooperative research project aims to improve mental health and well-being of informal carers of people with dementia by: (1) developing and evaluating an iSupport Virtual Assistant to support dementia carers through a partnership of Australia, Indonesia, New Zealand, and Vietnam; and (2) building capacity of researchers and Non-Government Organisation (NGO) partners to support this development and evaluation.

v. **“Cooperation of Vietnam, Myanmar and Russia in the development of new targeted agents against viral and parasitic infections based on plant metabolites”**

Countries & PIs

Russia	Irina Smirnova	Researcher, Ufa Federal Research Center of the Russian Academy of Science
Vietnam	Van Loc Tran	Associate Professor, Institute of Chemistry
Myanmar	Myint Myint Khine NiL	Professor, University of Yangon

#### Forms of Funding

Russia	New funds	Russian Foundation for Basic Research (RFBR)
Vietnam	New funds	Ministry of Science and Technology (MOST)
Myanmar	In-kind participation	Ministry of Education (MOE)

This cooperative research project aims to develop new targeted agents based on natural metabolites of the flora of Vietnam, Myanmar and Russia, modify their chemical structures to enhance their activity for treatment of infectious and parasite diseases. Researchers will concentrate in finding out active candidates for the care of diseases caused by SARS-COV-II and dengue virus as well as by the malaria parasites.

#### The 11<sup>th</sup> Joint Call for Proposals

4. The 11<sup>th</sup> Joint Calls for Proposals on the topic of “Urban and biological wastes to energy and biofuels” , “New fuel cell science and technologies”, “Alternative energies in the tropics and sub-tropics” in the field of “Alternative Energy”, Calls for Proposals on the topic of “Infectious Diseases (including Antimicrobial Resistance)” and “Cancer” in the field of “Health Research”, Calls for Proposals on the topic of “Greener Digital Cities” in the field of “Advanced Interdisciplinary Research towards Innovation” were opened from December 15, 2021 to March 30, 2022. These calls were participated by the following Member Organizations (listed in alphabetical order):

Participating Member Organizations and their funding modalities for the 11<sup>th</sup> Calls for Proposals

Fields	Alternative Energy			Health Research		Advanced Interdisciplinary Research towards Innovation
Topics	Urban and biological wastes to energy and biofuels	New fuel cell science and technologies	Alternative energies in the tropics and sub-tropics	Infectious Diseases (including Antimicrobial Resistance)	Cancer	Greener Digital Cities
NHMRC (Australia)				New		
JST (Japan)	New	New	New			New
AMED (Japan)				New	New	
MOST (Myanmar)	In-kind					In-kind
DOST-PCAARRD (Philippines)						New
DOST-PCIEERD (Philippines)	New	New	New			New
DOST-PCHRD (Philippines)				New	New	New
A*STAR (Singapore)	New	New	New			
NSTDA (Thailand)				New	New	
NRCT (Thailand)						New
PMU-B (Thailand)	New, In-kind	New, In-kind	New, In-kind	New, In-kind		

NIAID (USA)				New Re-Budgeting In-kind	New Re- Budgeting In-kind	
NCI (USA)				New Re-Budgeting In-kind	New Re- Budgeting In-kind	

The selection of the proposals for all these three calls is still in progress.

#### Researcher Interaction

##### 1. The e-ASIA Joint Research Program Workshop on Greener Digital Cities

The workshop was held on November 29, 2021 and December 1, 2021 via Zoom conference due to COVID-19 pandemic. This workshop was co-organized by Japan Science and Technology Agency (JST) and e-ASIA JRP Secretariat and supported by Ministry of Science and Technology (MOST), Myanmar, Department of Science and Technology (DOST-PCHRD), (DOST-PCAARRD), (DOST-PCIEERD), Philippines, Agency for Science, Technology and Research (A\*STAR), Singapore and National Research Council of Thailand (NRCT), Thailand. There were 117 participants including 34 invited speakers (Indonesia, Japan, Malaysia, Myanmar, Philippines, Singapore and Thailand).

This workshop was divided into three sessions: (1) Analysis & Modeling (2) Simulation & Optimization and (3) Implementation. Holding this workshop aimed to explore potential collaboration opportunities to prepare for the e-ASIA JRP's 11th joint call on "Greener Digital Cities" through

1. learning smart city policies from the governments
2. hearing project ideas from academia
3. promoting collaborations of 3+ countries

##### 2. The e-ASIA Joint Research Program Workshop on Climate Change and Health

The workshop will be held on 6-7 September 2022 at East West Center Honolulu, Hawaii. The format of the workshop will be hybrid (In-person and Live Streaming). The objective of the workshop is to promote the networking among the researchers for the next 12<sup>th</sup> Call for Proposals and sharing their knowledge

to the others.

#### Event

##### 1. The e-ASIA 10<sup>th</sup> Anniversary Event

This event was held on 11-12 July 2022 at Mercure Bangkok Sukhumvit 24, Thailand. This was to celebrate the e-ASIA Joint Research Program's accomplishment since the program's establishment in June 2012. We invited all member organizations, SAC members, former board member based in Thailand, PIs and executive guests. There were over 58 on-site participants and over 40 online participants. On the 1<sup>st</sup> day, we had seven PIs who were invited as speakers to showcase their research outcomes. Networking lunch and networking dinner were also provided on both days. On the 2<sup>nd</sup> day, it was limited to e-ASIA member organizations only. We discussed on two discussion points: "Possible expansion of the international collaboration" and "Possible revision of the current research fields".

For more information, please visit the following website:

<http://www.the-easia.org/jrp/>

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