

Please note that information described in this report should only be disclosable. This report will be shared by program member organizations and posted on the e-ASIA JRP website.

e-ASIA JRP Progress Report
(26 February 2021)

*e-ASIA Joint Research Program
Progress Report*

1. **Project Title:** Investigating the sylvatic transmission and reservoir potential of Zika, dengue, and chikungunya viruses of long-tailed macaques proximal to human populations of Thailand and Cambodia

2. **Joint Research Period:** May 1, 2019 ~ April 30, 2022

3. **Principal Investigators:**

- Country 1: Kobporn Boonnak, Assistant Professor, Mahidol University, Thailand
 - Planned Funding Period: May, 1, 2019 – April, 30, 2022
- Country 2: Rebecca C. Christofferson, Assistant Professor, Louisiana State University, School of Veterinary Medicine, USA
 - Planned Funding Period: May, 1, 2019 – April, 30, 2022
- Country 3: Leang Rithea, Head/Chief, National Center for Parasitology, Entomology, and Malaria Control, Cambodia
 - Planned Funding Period: May, 1, 2019 – April, 30, 2022

4. Summary of the Progress of the Joint Research:

Reporting period and research activities		Responsible Team		
Reporting period: 1 st May 2019 -26 th February 2021		Thailand	Cambodia	US
Status	Activities			
Completed	Kick-off investigator meeting during the workshop titled “Defining Vector Research Priorities in the Greater Mekong Sub-region” (March 13-14,2019) hosted by CNM-NIH laboratory in Phnom Penh at the National Center for Parasitology, Entomology, and Malaria Control	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Completed	Plaque Reduction Neutralization (PRNT) training workshop by NIAID, NIH, US hosted by CNM-NIH laboratory in Phnom Penh at the National Center for Parasitology, Entomology, and Malaria Control	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Completed	Protocol approval from local ethical committees (Mahidol University IRB and IACUC)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Completed	Protocol approval from local ethical committees (Cambodia)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Completed/Pending	Human blood sample collection from 3 study sites in Thailand (completed 2 sites)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Completed	Human blood sample collection from Amphae Phnom village, Cambodia nearby monkey habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Reporting period and research activities		Responsible Team		
Reporting period: 1 st May 2019 -26 th February 2021		Thailand	Cambodia	US
Status	Activities			
Completed	Testing long-tailed macaques and human serum samples from 3 study sites by PRNT (DENV1-4, ZIKV and CHIKV).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Completed/pending	Testing human serum samples from 2 out of 3 study sites by PRNT (DENV1-4, ZIKV and CHIKV).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pending	Long-tailed macaques blood sampling in Cambodia	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pending	Testing long-tailed macaques and human serum samples by PRNT (DENV1-4, ZIKV and CHIKV)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pending	BoB analysis training workshop by the collaborator from Division of Infectious Diseases and Vaccinology, School of Public Health, UC Berkeley. Hosting by Mahidol University	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ongoing	Data Analysis	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

5. Scientific Achievements and Implemented Activities (Research Exchange, Workshop, Publication, etc. if any):

**For this item, please fill in the attached Excel file.*

6. Future Goals and Plan of Activities within and after the project period:

We plan to continue to complete human blood sampling from Thailand (3rd study sites) and long-tailed macaques blood sampling in Cambodia in 2021. We will continue to determine the antibodies titers against DENV1-4, ZIKV and CHIKV in the long-tailed macaques and human blood samples from Thailand and Cambodia study sites. Since the Thailand and Cambodia are DENV endemic countries, the antibody against ZIKV will be confirmed by BoB analysis. The BoB analysis training will be conducted by instructor from UC Berkeley and hosted at Mahidol University in July-August 2021. The data obtained from 2-3 study sites from Thailand are currently analysis and will be incorporated with data from Cambodia once the all analysis is done.

7. Recommendations and Comments to the Program (if any):

(ex. Any support to request from the Program in order to achieve item 6.)

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Feedback from Science Advisory Council of e-ASIA JRP
(Please do not fill in this column)

Lists of Achievements and Implemented Activities

1. Original Publication of Articles etc.

【Notes】
 Please fill in **only the achievements of this project** by country in order of publication date. Only “published” is targeted, but please write “in press” too only for Final Report.
 Please count Proceedings with peer review as original paper.
 The information on this form is only disclosable. Please submit Non-disclosable information in a separate file.

1.1 Original Publications (Articles co-authored among Research Teams)

All Authors' Names, Title, Journal Name, Volume, Edition, Page, Year of Publication	DOI Code	Publication Status	Remarks (e.g. publication in top level journals etc.)
–			

1

 Total

1.2 Original Publications (Articles by Single Team only)

All Authors' Names, Title, Journal Name, Volume, Edition, Page, Year of Publication	DOI Code	Publication Status	Remarks (e.g. publication in top level journals etc.)	Country name of the team
Tongtainan Daraka, Monkol Nantanida, Juamsomboon Kultida, Suthisawat Sarocha, Sanyathitiseree Pornchai, Sukmak Manakorn, Wajjwalka Worawidh, Poovorawan Yong, Leamsaard Gittuyaporn, Smagkharak Bencharong, Turuyanon Kanokwan, Fungfuang Wirasak, Tulayakul Phitsanu and Boonnak Kobporn. Seroprevalance of Dengue, Zika, and Chikungunya viruses in wild monkeys in Thailand. Am J Trop Med Hyg;103(3):1228–1233.2020	doi:10.4269/ajtmh.20-0057	in press		Thailand

1

 Total

Lists of Achievements and Implemented Activities

2. presentations at Academic Conferences etc. (Seminars, Workshops, Symposia)

[Notes]
Please fill in **only the achievements of this project** by country in order of presentation date.
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2.1 Conference Presentations (Joint Presentations among Research Teams)

Date	Type of Presentation	Speaker, "Title", Conference Name, Location, etc.

0 Total

2. 2 Conference Presentations (by Single Team)

Date	Type of Presentation	Speaker, "Title", Conference Name, Location etc.	Country name of the team

0 Total

Lists of Achievements and Implemented Activities

3. Workshops, Seminars, Symposia and Other Events (Organized by the Project)

【Notes】

Please fill in **only the achievements of this project** in order of event date.

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Event duration	Name of Organizer	Title of the Event	Location (Country, City, Venue)	Number of Participants (Including Team Members)	Overview

Total

Lists of Achievements and Implemented Activities

4. Record of Research Exchanges

[Notes]
 Please fill in the record of **research exchange only of this project**.
 "Duration of exchange" is not the number of days stayed on the site, but the number of days from departure to return home.
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Date of Departure	Date of Return	Last Name & First Name	Country of Affiliation	Affiliation	Position	Exchange Destination (Country, City, Research Organization, etc.)	Description of Exchange Content/Purpose	Duration of Exchange (autocompleted)
								0
								0
								0
								0

Total (Person)

Total (Person-day)

Lists of Achievements and Implemented Activities

5. Patent Applications

【Notes】

Please fill in **only the achievements of this project** by country in order of presentation date.
The information on this form is only disclosable. Please submit Non-disclosable information in a separate file.

5.1 Independent Applications by Single Team

Application Number	Name of Patent/Patent Name	Application Date	Patent Applicants (Fill in All Members)	Publication Number (leave blank if unpublished)	Inventor	Country of Application	Registration Number (leave blank if unregistered)	Country Name of the Team

Total (Number of Application)

Total (Number of Registration)

5.2 Joint Applications

Application Number	Name of Patent/Patent Name	Application Date	Patent Applicants (Fill in All Members)	Publication Number (leave blank if unpublished)	Inventor	Country of Application	Registration Number (leave blank if unregistered)
WO20xx-xxxxxx		January 21, 2016	〇〇 Univ, Univ.of xx	WO/2016/xxxxxx	〇〇〇〇、〇〇・〇〇	PCT	WO20xx-xxxxxx (20xx.xx.xx)

Total (Number of Application)

Total (Number of Registration)

Lists of Achievements and Implemented Activities

6. Awards

[Notes]
Please fill in **only the achievements of this project** by country in order of date of Award.
The information on this form is only disclosable. Please submit Non-disclosable information in a separate file.

Date of Award	Name of Award	Recipient	Remarks	Country Name of the Team

Total