
**PROPORTION OF DENGUE SEROTYPE 2 VIRUS SUBTYPE III_a AND III_b
IN BANGKOK, THAILAND IN 1994**

RUNGTAWAN SRIBURI

**A THESIS SUBMITTED TO THE GRADUATE SCHOOL IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF SCIENCE
IN MICROBIOLOGY**

**GRADUATE SCHOOL
CHIANG MAI UNIVERSITY**

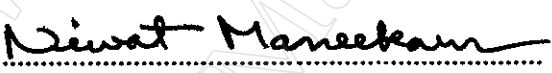
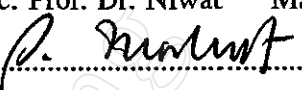

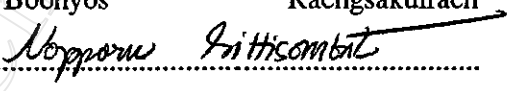
JULY 1997

**PROPORTION OF DENGUE SEROTYPE 2 VIRUS SUBTYPE IIIa AND IIIb
IN BANGKOK, THAILAND IN 1994**

RUNGTAWAN SRIBURI

**THIS THESIS HAS BEEN APPROVED TO BE A PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE
IN MICROBIOLOGY**

EXAMINING COMMITTEE

	CHAIRMAN
Assoc. Prof. Dr. Niwat Maneekarn	
	MEMBER
Dr. Prida Malasit	
	MEMBER
Dr. Boonyos Raengsakulrach	
	MEMBER
Assoc. Prof. Dr. Nopporn Sittisombut	

29 July 1997

Copyright of the Graduate School, Chiang Mai University

ACKNOWLEDGEMENT

I would like to express my deepest appreciation to Associate Professor Dr. Nopporn Sittisombut and Associate Professor Dr. Niwat Maneekarn, my advisors, for all the guidance, continuous supervision, valuable advice, patience, and encouragement throughout this study.

I am especially grateful to Dr. David Vaughn and Dr. Ananda Nisalak, Department of Virology, Armed Forces Research Institute of Medical Sciences (AFRIMS), Bangkok, Khun Suntharee Rojanasuphot and Khun Sumlee Duangchanda, Virus Research Institute, Department of Medical Sciences, Ministry of Public Health, Nonthaburi, for generous gifts of virus isolates; Dr. Pa-Thai Yenchitsomanus, and Dr. Prida Malasit, Siriraj Medical Molecular Biology Center, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok and Dr. Boonyos Raengsakulrach, Department of Virology, AFRIMS for gifts of viral RNA, PCR products, and patients' information.

Many thanks to Khun Kittika Kanjanaratanakorn, Medical Education Section and Dr. Apinan Aramrat, Department of Family Medicine, Faculty of Medicine; Khun Antika Tansuhaj, Research Institute for Health Sciences, Chiang Mai University for their helpful advice on statistical methods. Fundings for the project were from the Faculty of Medicine Endowment Fund for Research, Chiang Mai University and Thailand Research Fund.

Dedicated to my mother with love and gratitude.

Rungtawan Sriburi