## DNA FINGERPRINTING OF MYCOBACTERIUM AVIUM IN HIV-INFECTED PATIENTS

NAOWARAT KUNYANONE

A THESIS SUBMITTED TO THE GRADUATE SCHOOL IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF
MASTER OF SCIENCE
IN MEDICAL TECHNOLOGY

Copyright by Chiang Mai University

A I r GRADUATE SCHOOL es er ved

CHIANG MAI UNIVERSITY

MAY 2004

## DNA FINGERPRINTING OF MYCOBACTERIUM AVIUM IN HIV-INFECTED PATIENTS

### NAOWARAT KUNYANONE

# THIS THESIS HAS BEEN APPROVED TO BE A PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN MEDICAL TECHNOLOGY

EXAMINING COMN		
	Suchart Punjaise	← CHAIRPERSON
	Asst. Prof. Dr. Suchart Punjaisee	
••••••	Frail T.	MEMBER
	Assoc. Prof. Prasit Palittapongarnpim	
*********		MEMBER
22	Asst. Prof. Dr. Pranee Leechanachai	2 2
	M. Si-gri	MEMBER
Copyrig	Asst. Prof. Dr. Wasna Sirirungsi	

10 May 2004

© Copyright by Chiang Mai University

#### ACKNOWLEDGEMENT

As the author, I wish to express my sincere gratitude and appreciation to Asst. Prof. Dr. Suchart Punjaisee, the thesis advisor, for his excellent guidance, continuous suggestions and many encouragements throughout this study. This thesis would not have been completed without his support.

I wish to extend my deepest gratitude to Assoc. Prof. Prasit Palittapongarnpim, M.D. the thesis co-advisor, for his excellent advice, valuable suggestions and support in analysis program of RFLP pattern for the study.

I am also grateful to Asst. Prof. Dr. Pranee Leechanachai and Asst. Prof. Dr. Wasna Sirirungsi, examination committee members, for their valuable suggestions and corrections on this thesis.

I am grateful to Mr. Somsak Reianthong, TB Division of Ministry of Public Health, Thailand, Miss Arunee Tong-on, Faculty of Sciences, Mahidol University, Mr. Pravech Ajawatanawong, National Center for Genetic Engineering and Biotechnology, National Science and Technology Development Agency for their valuable advice as well as valuable suggestions and some instrument support applicable for laboratory work. I also would like to thank their staff members for their co-operation.

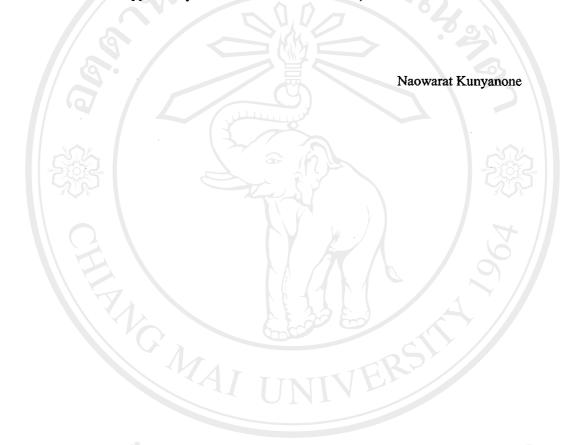
I wish to specially thank all patients and volunteers who donated the sample for this study. This thesis would not have been completed without their kind. I would also like to thank Maharaj Nakorn Chiangmai hospital, Nakornping hospital, Sanpatong hospital and Sansai hospital, Chiang Mai province and their staff members who supported this study by supplying the samples.

I would like to thank Asst. Prof. Khajornsak Tragoolpua, Lecturer Sorasak Intorasoot, Mr. Boonsong Tanjai and all staff members of the Department of Clinical Microbiology, Faculty of Associated Medical Sciences for their advice, friendship and cooperation.

I sincerely thank the Department of Clinical Microbiology and Department of Clinical Immunology, Faculty of Associated Medical Sciences for their support in providing instrument and places for the study to be conducted.

Finally, I would like to express my special gratitude to my family for their love, understanding and support throughout my study was undergone.

This work was supported by the Thailand Research Fund, Thailand.



ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่ Copyright<sup>©</sup> by Chiang Mai University All rights reserved