DETECTION OF α - THALASSEMIA 2 CARRIERS : RIGHTWARD TYPE (- $\alpha^{3.7}$) IN NORTHERN THAI POPULATION BY POLYMERASE CHAIN REACTION TECHNIQUE

ARUNEE HEMATULIN

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

GRADUATE SCHOOL
CHIANG MAI UNIVERSITY
JANUARY 2000

DETECTION OF α - THALASSEMIA 2 CARRIERS : RIGHTWARD TYPE (- $\alpha^{3.7}$) IN NORTHERN THAI POPULATION BY POLYMERASE CHAIN REACTION TECHNIQUE

ARUNEE HEMATULIN

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

EXAMINING COMMITTEE

Lukeana Mahonkawkeyoan	Chairmar
Associate Professor Dr. Luksana Makonl	
Apriches	Member
Associate Professor Dr. Apichart Oranra	tanachai
P. Limtraku	Member
Associate Professor Dr. Porn-ngarm Lim	trakul

28 January 2000

Copyright by the Graduate School, Chiang Mai University

ACKNOWLEDGEMENT

The author wishes to express her gratitude and deepest appreciation to Associated Prof. Dr. Luksana Makonkawkeyoon, thesis advisor, for her excellent guidance, valuable advice, and kindness encouragement throughout this study. This thesis could not have accomplished without her understanding and gracious assistance.

The author would also like to thank all the instructors in the Department of Biochemistry, Faculty of Medicine, for their excellent instruction and training. Their teaching and suggestions during the course work were very helpful for the understanding of this study.

She would like to thank all examining committee members for their valuable suggestions and corrections of this thesis.

She would like to express the officials of Blood Bank Unit, Maharaj Nakorn Chaing Mai Hospital, Chiang Mai, Thailand, for their kind help in collecting venous blood samples.

She is also thankful to Mr. Sompol Prephun, Miss Pernpit Yasin, Miss Sarinyaporn Tummengpuk for their kind help, also many thanks for her friends for their kindness and friendship.

Finally, she would like to express her deepest gratitude to her parents for their love, understanding and encouragement throughout this study.

This study was supported by National Center for Genetic Engineering and Biotechnology National Science and Technology Development Agency, Thailand.

Arunee Hematulin