

**CELLULAR CHARACTERIZATION OF FERRIC-  
DESFEROXAMINE COMPLEX AND ITS  
BIODISTRIBUTION IN WISTAR RATS  
BY MR-IMAGING**

**ANAN UDOM-UTTARACHEVA**

**MASTER OF SCIENCE  
IN MEDICAL RADIATION SCIENCES**

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

Copyright © THE GRADUATE SCHOOL  
Chiang Mai University

All rights reserved

**NOVEMBER 2008**

**CELLULAR CHARACTERIZATION OF FERRIC-  
DESFEROXAMINE COMPLEX AND ITS  
BIODISTRIBUTION IN WISTAR RATS  
BY MR-IMAGING**

**ANAN UDOM-UTTARACHEVA**

**MASTER OF SCIENCE  
IN MEDICAL RADIATION SCIENCES**

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

Copyright © THE GRADUATE SCHOOL  
Chiang Mai University

All rights reserved

**NOVEMBER 2008**

CELLULAR CHARACTERIZATION OF FERRIC-DESFEROXAMINE COMPLEX  
AND ITS BIODISTRIBUTION IN WISTAR RATS BY MR-IMAGING

ANAN UDOM-UTTARACHEVA

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

EXAMINING COMMITTEE

*Sam Lee Mankhetkorn* .....CHAIRPERSON

Assoc. Prof. Dr. Samlee Mankhetkorn

*Suchart Kothan* .....MEMBER

Assist. Prof. Dr. Suchart Kothan

*R. Gunphairon* .....MEMBER

Assoc. Prof. Raweewan Gunphairon

*Manuel Garrigos* .....MEMBER

Dr. Manuel Garrigos

*Chatchanok Loetchutinat* .....MEMBER

Dr. Chatchanok Loetchutinat

*Nathupakorn Dechsupa* .....MEMBER

Dr. Nathupakorn Dechsupa

26 November 2008

© Copyright by Chiang Mai University

**ACKNOWLEDGEMENT**

I would like to express my sincere appreciation and grateful thank to my thesis Advisor committees, Assist. Prof. Dr. Suchart Kothan, Dr. Nathupakorn Dechsupa and Dr. Chatchanok Loetchutinat for their valuable guidance and encourage me throughout this thesis.

My gratitude thanks and high appreciation is to Assoc Prof. Dr. Samlee Mankhetkorn for valuable discussion, suggestion and English editing of the dissertation and for his kindness to accept to be the president of my thesis examination committee.

I would like to express my high appreciation to Dr. Manuel Garrigos for his kindness to be an examination committee of my thesis and for his valuable discussion and suggestions on scientific culture and thinking. My great thank is also for Assoc. Prof. Raweevan Gunpairoh.

My special thanks and recognition is to my colleagues of PCMCB's members and of Urupong X-ray computer Ltd. Part. Ship. for their warm and friendly ambient, technical help and facilitation in the collection of data during my thesis. I would like to pay gratitude to Uttaradit Hospital for supporting of my study.

Finally, I would like to give the special appreciation to my loving parents who stood by my side throughout my graduate career and have helped me strive to do my best and maintain a positive attitude throughout my study period.