

Thesis  
entitled  
**THE EFFECTS OF GONADOTROPIN-RELEASING HORMONE,  
AND IT'S HOMOLOGS ON ANDROGENIC GLAND AND  
TESTICULAR DEVELOPMENT, TESTICULAR LIPID  
PROFILE, AND MALE SEX MARKER IN  
*MACROBRACHIUM ROSENBERGII***

was submitted to the Faculty of Graduate Studies, Mahidol University  
for the degree of Doctor of Philosophy (Anatomy and Structural Biology)  
on  
June 17, 2015

.....  
Ms. Tanapan Siangcham  
Candidate

.....  
Ms. Morakot Sroyraya,  
Ph.D. (Anatomy)  
Member

.....  
Assoc. Prof. Prasert Meeratana,  
Ph.D. (Anatomy)  
Chair

.....  
Asst. Prof. Charoonroj  
Chotwiwatthanakun,  
Ph.D. (Biochemistry)  
Member

.....  
Prof. Prasert Sobhon,  
Ph.D. (Cell biology and Anatomy)  
Member

.....  
Asst. Prof. Yotsawan Tinikul,  
Ph.D. (Anatomy)  
Member

.....  
Assoc. Prof. Chaitip Wanichanon,  
Ph.D. (Anatomy)  
Member

.....  
Prof. Patcharee Lertrit,  
M.D., Ph.D. (Biochemistry)  
Dean  
Faculty of Graduate Studies  
Mahidol University

.....  
Prof. Skorn Mongkolsuk,  
Ph.D. (Biological Science)  
Dean  
Faculty of Science  
Mahidol University