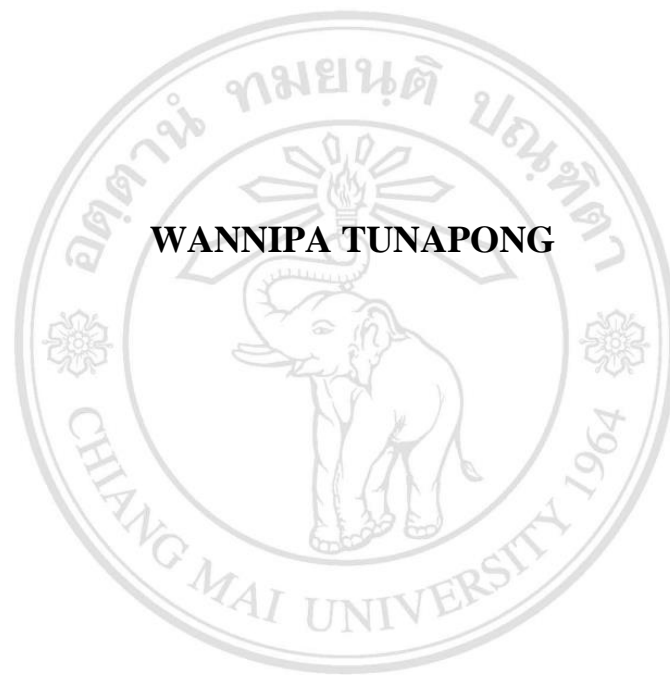


**EFFECTS OF PROBIOTICS (*Lactobacillus paracasei* ST11 HP4)
ON CARDIAC FUNCTION IN HIGH FAT DIET INDUCED
OBESE-INSULIN RESISTANT RATS**



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**GRADUATE SCHOOL
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WANNIPA TUNAPONG

**A THESIS SUBMITTED TO CHIANG MAI UNIVERSITY IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF SCIENCE
IN PHYSIOLOGY**

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Examination Committee:


Advisory Committee:

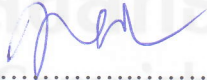

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To

Dear parents



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Wannipa Tunapong