

**MECHANISMS OF CREBANINE ON  
LIPOPOLYSACCHARIDE-INDUCED  
INFLAMMATION PROCESS  
IN MACROPHAGE CELLS**

**PICHANAN INTAYOUNG**

**MASTER OF SCIENCE**

**IN BIOCHEMISTRY**

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**GRADUATE SCHOOL  
CHIANG MAI UNIVERSITY  
NOVEMBER 2015**

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

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THIS THESIS HAS BEEN APPROVED TO BE A PARTIAL FULFILLMENT OF  
THE REQUIREMENTS FOR THE DEGREE OF  
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