

**DEVELOPMENT OF ISOFLAVONE AGLYCONES
PRODUCTION FROM SOY GERM USING
 β -GLUCOSIDASE FROM *Bacillus coagulans*
PR03 AND APPLICATION FOR
ELDERLY HEALTH DRINK**



**DOCTOR OF PHILOSOPHY
IN AGRO-INDUSTRIAL PRODUCT DEVELOPMENT**

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**GRADUATE SCHOOL
CHIANG MAI UNIVERSITY**

MAY 2018

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**A THESIS SUBMITTED TO CHIANG MAI UNIVERSITY IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY
IN AGRO-INDUSTRIAL PRODUCT DEVELOPMENT**

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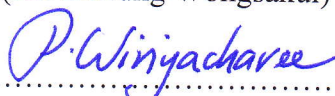
SUPAKIT CHAIPOOT

THIS THESIS HAS BEEN APPROVED TO BE A PARTIAL FULFILLMENT OF
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IN AGRO-INDUSTRIAL PRODUCT DEVELOPMENT

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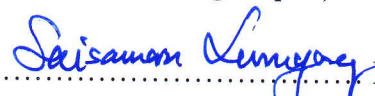
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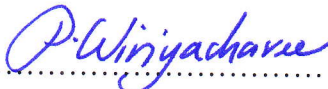

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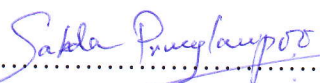
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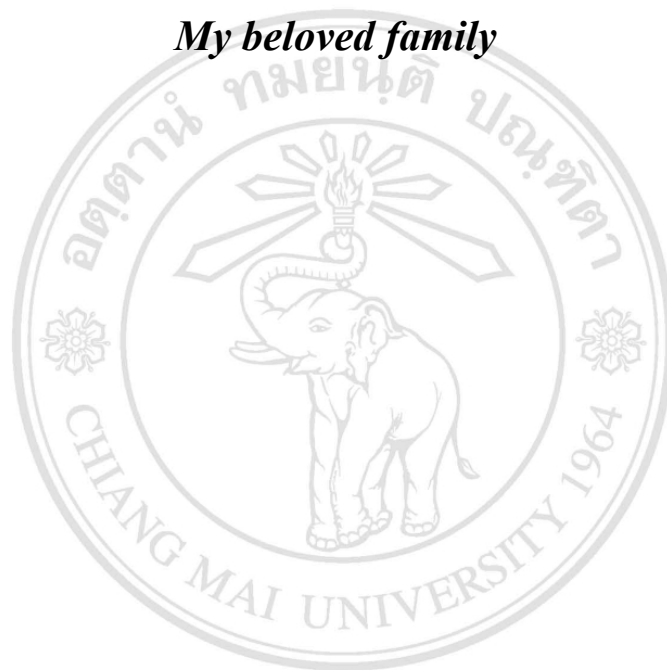

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(Dr. Sakda Pruenglampoo)

24 May 2018

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To
My beloved family



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Supakit Chaipoot