



## AGREEMENT FOR THE EXCHANGE OF GRADUATE STUDENTS

between

THE MASTER PROGRAM IN BIOMEDICAL SCIENCES,

THE DOCTORAL AND MASTER PROGRAM IN PHARMACOLOGY AND TOXICOLOGY,

SCHOOL OF MEDICINE, TZU CHI UNIVERSITY, TAIWAN

and

THE APPLIED MEDICAL SCIENCES PROGRAM, FACULTY OF MEDICINE, SRINAKHARINWIROT UNIVERSITY,  
THAILAND

The Master Program in Biomedical Sciences and The Doctoral and Master Program in Pharmacology and Toxicology, School Of Medicine, TZU CHI UNIVERSITY and the Applied Medical Sciences Program, Faculty of Medicine, SRINAKHARINWIROT UNIVERSITY pursuing the beneficial research collaboration, hereby agree upon the following terms and conditions for Agreement for the Exchange of Graduate Students.

### 1. NUMBER OF GRADUATE STUDENTS AND PERIOD OF STAY

During the years of this agreement, the enrolled graduate students in the postgraduate programs in Biomedical Sciences and Pharmacology and Toxicology and the Applied Medical Sciences Program from each institution may participate at the discretion of the host institution in accordance with its admission procedures and regulations. The graduate students will be required to display sufficient proficiency in the communication languages to the host institution to carry out their research. The total number of participants in any one year will be determined in consultation between the two institutions.

The period of stay for visiting students shall be determined by the two Parties. During their stay, students shall conform to the regulations of the host institution that apply to them.

### 2. FINANCE AND ACCOMMODATION

The host institution bears no financial responsibility for students visiting their institution under this Agreement. The cost of travel between the two institutions, accommodations, food, insurance, and personal expenses of the visiting student participants shall be the responsibility of the individual graduate students and their research funding sponsor. Each exchange student shall pay regular tuition fees to his/her own university directly during the period of the exchange programme. The host institution shall assist the exchange student in locating suitable accommodations, but does not guarantee the availability of such housing nor its proximity to the host institution's campus.

### 3. HEALTH INSURANCE

All participating students will be required to carry health insurance at a level equivalent to or greater than the coverage required at the host institution for international students. Exchange students must provide evidence of an insurance policy that is compliant with the regulation of host institution and/or the regulation of the Ministry of Education of the host country, or purchase the Student Health Insurance program available at the time of enrollment. They will be exempted from purchasing health insurance only upon providing acceptable evidence of equivalent insurance. The host institution shall bear no responsibility for any health-related expenses incurred by an exchange or visiting student or resident.

### 4. VISA

Exchange students shall be responsible for obtaining any necessary visas and/or otherwise complying with all immigration laws and regulations of the host country. The host university shall assist in such efforts, but shall not have any responsibility to assure the granting of any visas, permits or approvals.

The Agreement shall commence on the date when the representatives of both programs affix their signatures and shall continue thereafter for five (5) years subject to revision or modification by mutual agreement. Either institution may, by notice in writing of no less than six (6) months, terminate this Agreement but any participating students who have commenced at either institution, or whose exchange procedures have been started by the date of termination, may complete their course of research. The institutions will confer concerning the renewal of this Agreement six (6) months prior to its expiration.

Signed for and on behalf of  
Tzu Chi University  
by

\_\_\_\_\_  
Ingrid Liu  
President  
Date:

\_\_\_\_\_

\_\_\_\_\_  
Tsung-Ying Chen  
Dean, College of Medicine  
Date:

\_\_\_\_\_

\_\_\_\_\_  
Chang-Chih Kuo  
Director of Master Program in Biomedical Sciences  
Date:

\_\_\_\_\_

\_\_\_\_\_  
Chih-Chia Lai  
Director of Doctoral and Master Program in  
Pharmacology and Toxicology  
Date:

\_\_\_\_\_

Signed for and on behalf of  
Srinakharinwirot University  
by

\_\_\_\_\_  
Somchai Santiwatanakul  
President  
Date:

\_\_\_\_\_

\_\_\_\_\_  
Nantana Choomchuay  
Dean, Faculty of Medicine  
Date:

\_\_\_\_\_

\_\_\_\_\_  
Srisombat Puttikamonkul,  
Head of Program in Applied Medical Sciences  
Date:

\_\_\_\_\_



คณะแพทยศาสตร์  
มหาวิทยาลัยศรีนครินทรวิโรฒ

**SWU**  
SRINAKHARINWIROT UNIVERSITY

# M.Sc. and Ph.D. Programs in Applied Medical Sciences

**Faculty of Medicine**  
**Srinakharinwirot University**



# Research area

- ⊕ Molecular Biology of Diseases
- ⊕ Thai Medicinal Herbs
- ⊕ Medical Science and Technology
- ⊕ Medical Microbiology
- ⊕ Applied Medical Anatomy
- ⊕ Anti-aging and Health Promotion



# Prof. Dr. Ramida Watanapokasin

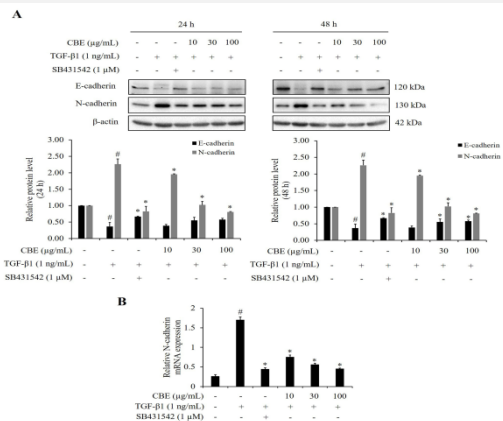
Research of interest: Effects of bioactive compounds from herbs on:

- Mechanisms of apoptosis induction in cancer cells.
- Anti-inflammation
- Neurodegenerative diseases
- Non-communicable diseases

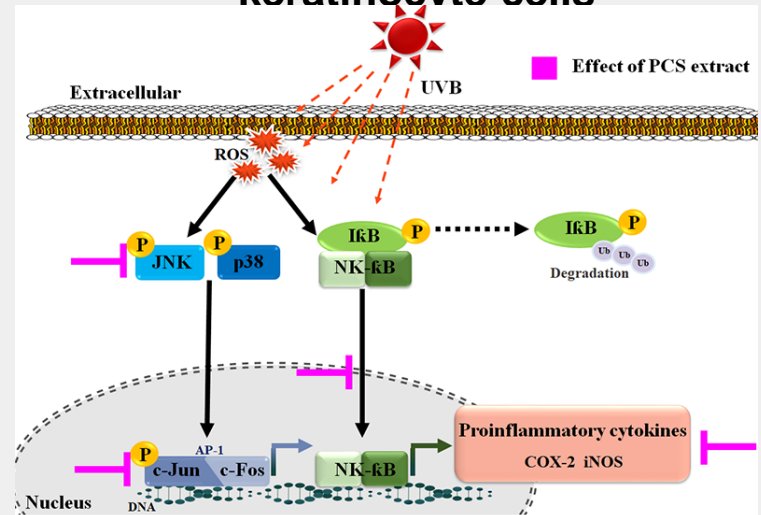
E-mail: [ramidabc@gmail.com](mailto:ramidabc@gmail.com)



***Cinnamomum bejolghota* extract inhibits colorectal cancer cell metastasis and TGF- $\beta$ 1-induced epithelial-mesenchymal transition via Smad and non-smad signaling pathway**



**Purple corn silk extract attenuates UVB-induced inflammation in human keratinocyte cells**



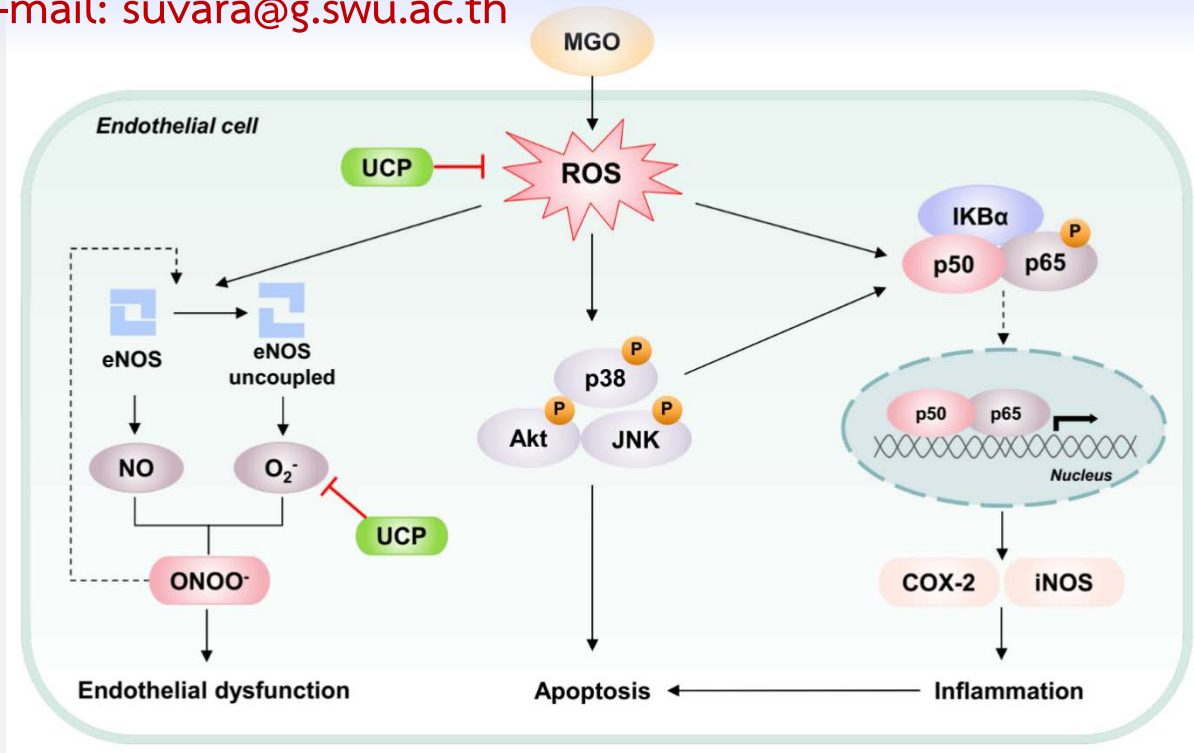


# Assoc.Prof. Suvara Wattanapitayakul

## Research of interest:

- Studying the mechanism of antioxidants obtained from herbs and fruits in protecting endothelial cells from oxidative stress.
- Studying the anti-inflammation property of herbs in UV rays irritated skin cells.

E-mail: [suvara@g.swu.ac.th](mailto:suvara@g.swu.ac.th)





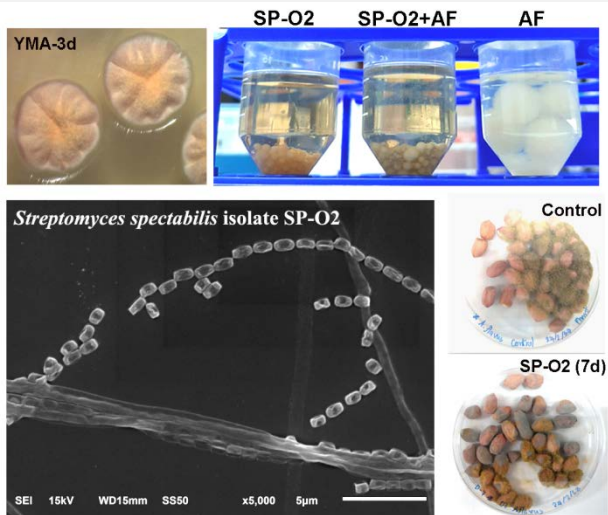
# Asst. Prof. Srisombat Puttikamonkul



Research of interest: Characterization of biological activities of bioactive compounds and bacterial melanin produced by soil-isolated Actinomycetes including *Streptomyces spectabilis*, and *S. alboflavus*.

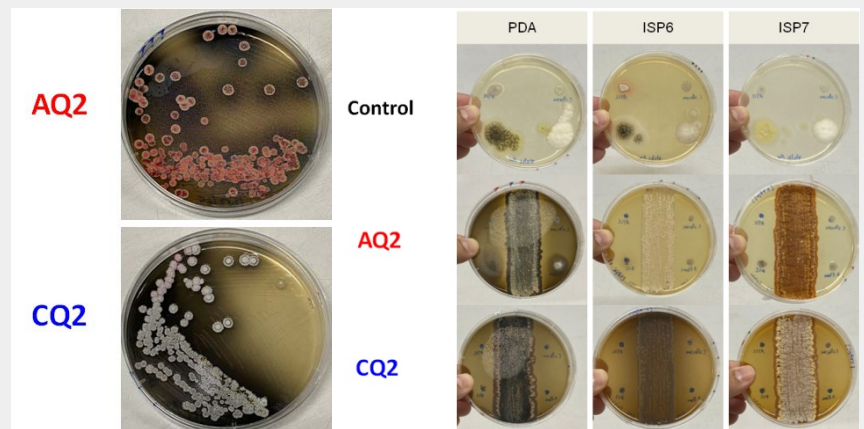
E-mail: [srisombat@g.swu.ac.th](mailto:srisombat@g.swu.ac.th)

## Antifungal Activity of *Streptomyces spectabilis* strain SP-O2 Against Aflatoxin producing mold, *Aspergillus flavus*



Uasoontornnop, *et.al.*, 2022, Trends in Sciences, 19(22), 375.

## Preliminary characterization and inducing melanin production of Actinomycetes bacteria





# Asst. Prof. Rossarin Karnpean



Research of interest: Red blood cell disorders such as thalassemia, iron deficiency, G6PD enzyme deficiency, etc.

E-mail: rossarink@g.swu.ac.th

## Five VNTR loci (D17S5, APOB, TPO intron 10, IL-1 $\alpha$ intron6 and CIAS1) in Thais and application in prenatal diagnostic laboratory

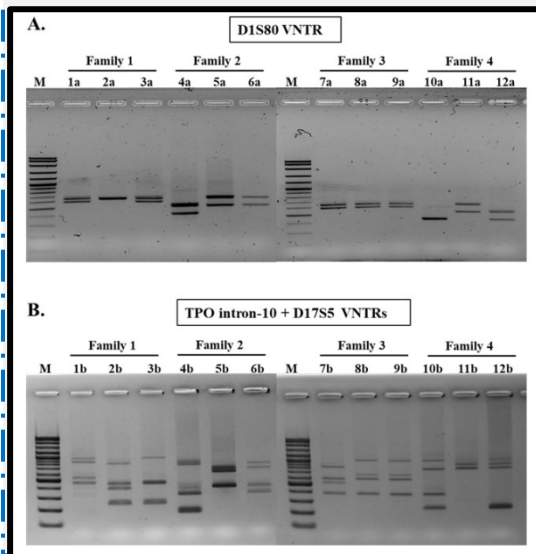


Fig. 1. Amplification of VNTRs for detecting MCC. A = a representative gel demonstrating the D1S80 VNTR analysis in routine practice, B = a representative gel of a multiplex TPO+D17S5 VNTRs amplification developed in this study (M: the 100 bp plus DNA ladder, lanes 1, 4, 7, 10: DNA from fathers, lanes 2, 5, 8, 11: DNA from mothers, lanes 3, 6, 9, 12: DNA from the fetal tissues). Family 1 (A) and family 4 (B): uninformative due to homozygosity of maternal VNTR; family 2 (A), family 3 (A), and family 3 (B): uninformative due to similar patterns of maternal and fetal VNTRs; family 4 (A), family 1 (B), and family 2 (B): informative cases.

## Micromapping of Thalassemia and Hemoglobinopathies Among Laos, Khmer, Suay and Yer Ethnic Groups Residing in Lower Northeastern Thailand

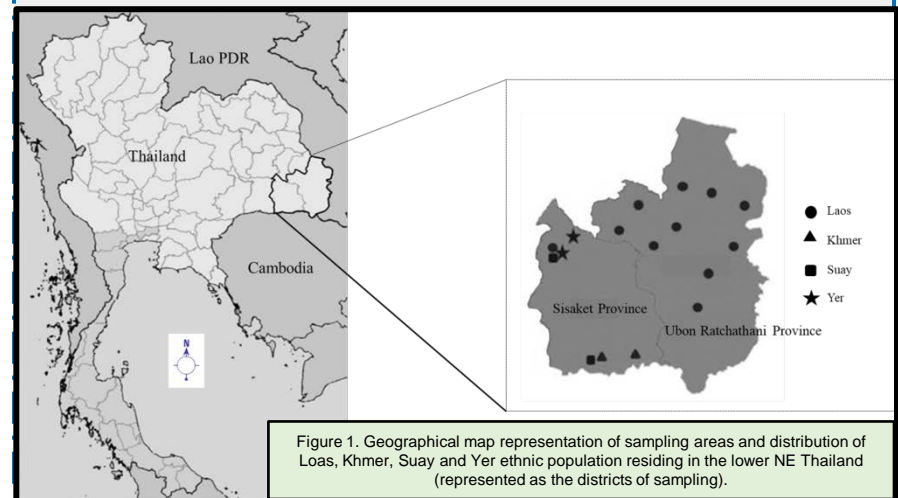


Figure 1. Geographical map representation of sampling areas and distribution of Laos, Khmer, Suay and Yer ethnic population residing in the lower NE Thailand (represented as the districts of sampling).



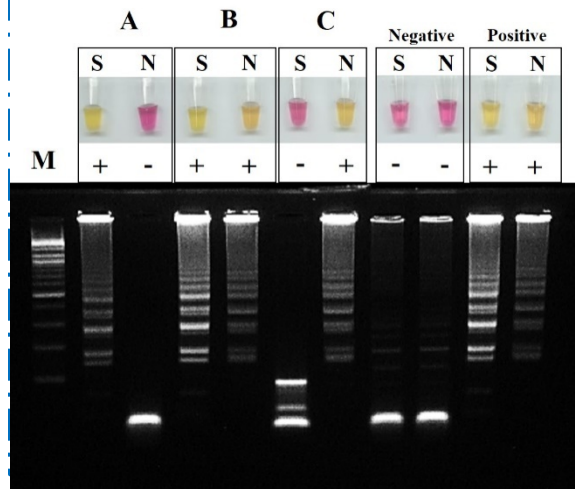
# Asst.Prof. Wittaya Jomoui



Research of interest: **Thalassemia, Red blood cell disorders, Laboratory medicine, Biosensor**

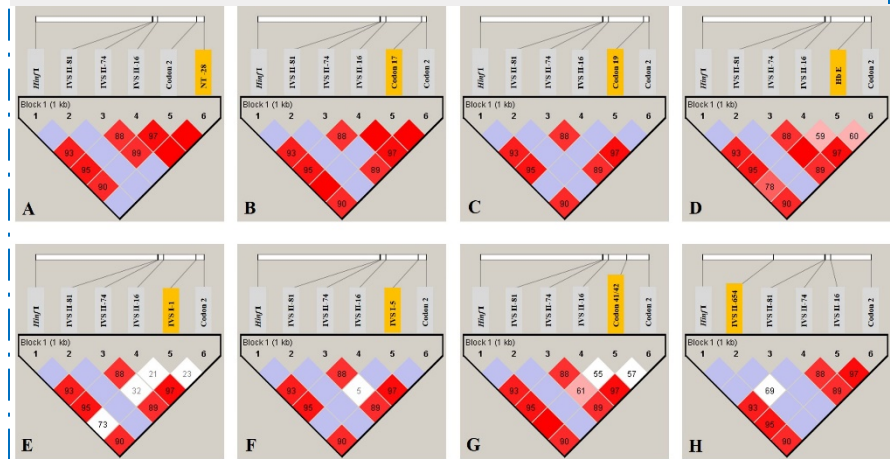
E-mail: [wittayaj@g.swu.ac.th](mailto:wittayaj@g.swu.ac.th)

## Development of rapid identification of $\alpha^0$ -thalassemia using Loop-mediated isothermal amplification (LAMP) colorimetric phenol red assay



**A:** Homozygous  $\alpha^0$ -thalassemia (SEA deletion)  
**B:** Heterozygous  $\alpha^0$ -thalassemia (SEA deletion)  
**C:** Wild type

## Genetic background studies of common beta thalassemia mutations in Thailand, using $\beta$ -globin gene haplotype and phylogenetic analysis





# Asst. Prof. Papavee Samatiwat

Research of interest: Anticancer effect of phytochemicals, plant extracts and the enhanced chemosensitivity for the treatment of cholangiocarcinoma

E-mail: [papavees@g.swu.ac.th](mailto:papavees@g.swu.ac.th)



## สารออกฤทธิ์ต้านมะเร็งท่อน้ำดีในกัญชา “Cannabinoids” (CBG, CBN และ CBG)

### Cytotoxicity

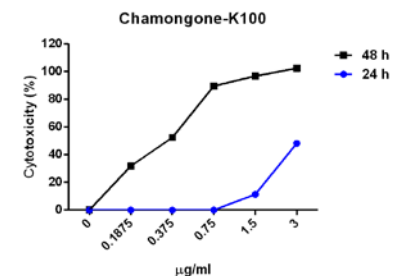
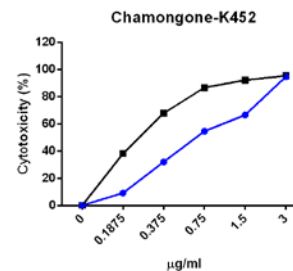
Table 1 Cytotoxicity of a series of cannabinoids against KKU-100 and KKU-452 cells

Compounds	KKU-452		KKU-100	
	24 h	48 h	24 h	48 h
	IC50 (µg/ml)	IC50 (µg/ml)	IC50 (µg/ml) <sup>a</sup>	IC50 (µg/ml)
CBD	1.40 ± 0.42	0.18 ± 0.05	1.91 ± 1.2	0.73 ± 0.30
CBG	1.10 ± 0.44	0.16 ± 0.02	1.44 ± 0.64	0.67 ± 0.30
CBN	1.30 ± 0.41	0.14 ± 0.02	2.24 ± 1.42	1.17 ± 0.60

Chemotherapy	KKU-452		KKU-100	
	24 h	48 h	24 h	48 h
	IC50 (uM)	IC50 (uM)	IC50 (uM) <sup>a</sup>	IC50 (uM)
Gefitinib	3.97 ± 1.65	1.27 ± 0.57	45.61 ± 36.01	0.82 ± 0.44
cisplatin	38.80 ± 13.93	0.66 ± 0.40	65.71 ± 37.43	19.23 ± 10.04

Preliminary results

## สารออกฤทธิ์ต้านมะเร็งท่อน้ำดีในชะมวง “ชะมวงโอน” (chamuangone)



Preliminary results



The below list is all faculties that are unable to join the visit, but if there is any aspect that members of your master's program at Tzu Chi University may be interested in or need further information or contact, just let us know.



# Assoc. Prof. Malai Taweechoatipatr

## Research of interest



**E-mail: [malai@g.swu.ac.th](mailto:malai@g.swu.ac.th)**

1. Functional characteristics of probiotics *in vitro* and *in vivo*
  - Anti-inflammatory and anti-oxidant activities
  - Cholesterol lowering
  - Immunomodulation
2. Clinical study and application of probiotics on:
  - Metabolic syndromes
  - Non-communicable diseases
  - Skin health and anti-aging
3. Gut microbiome in health and diseases
4. Product development of probiotics
  - Scale up, formulation, viability, stability
  - Synbiotics
  - Microencapsulation



# Assoc.Prof. Somrudee Saiyutthong



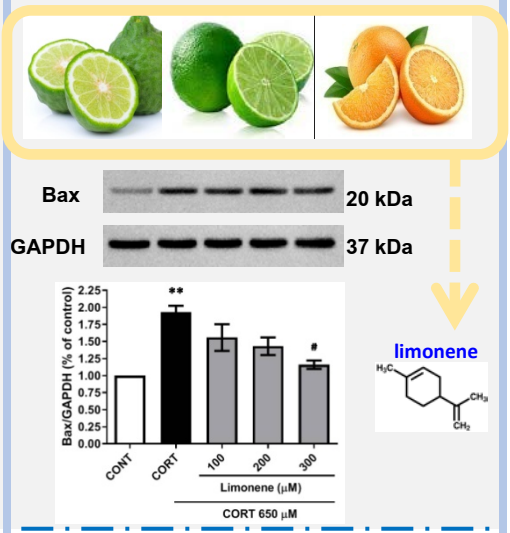
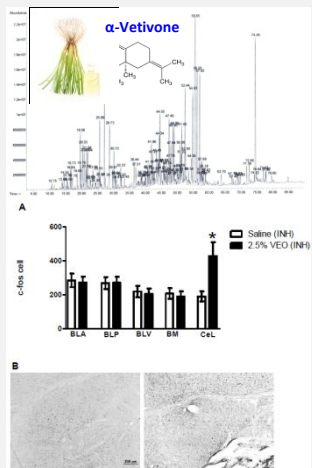
## Research of interest:

- Physiological mechanisms of action of essential oils and natural products in reducing stress and insomnia as well as stimulating memory.
- Developing products from essential oils to relieve stress and insomnia and stimulate memory.

E-mail: [somrudee@swu.ac.th](mailto:somrudee@swu.ac.th)

## Investigate the effect of Thai essential oils and their compounds on neuroprotective activity

### Vetiver & c fos expression



## Development of essential oil blend on physiological response of stress and stress with sleep problems

**คุณสมบัติ**

1. ชายหญิง อายุ 18 ขึ้นไป อยู่ในกรุงเทพฯ
2. มีภาวะเครียด
3. ไม่มีปัญหาสุขภาพด้านการรับกลิ่น

SCAN ME

รับสมัครอาสาสมัคร เข้าร่วมงานวิจัยการพัฒนากลิ่นที่น้ำมันหอมระเหยผสมต่อการตอบสนองทางสรีรวิทยาของความเครียด

DEVELOPMENT OF ESSENTIAL OIL BLEND ON PHYSIOLOGIC RESPONSE FOR STRESS

คณะแพทยศาสตร์ มหาวิทยาลัยศรีนครินทรวิโรฒ (ศรี-सानนิต) อาคาร 15 คณะแพทยศาสตร์ 114 สุขุมวิท 23 กรุงเทพฯ 10110 | 086-56213 http://m

**DEVELOPMENT OF BALM ESSENTIAL OIL USED AS AN ALTERNATIVE TREATMENT FOR STRESS CONDITION, INSOMNIA**

รับสมัครอาสาสมัคร เข้าร่วมงานวิจัยการพัฒนา ผลิตภัณฑ์น้ำมันหอมระเหยผสม เพื่อเป็นทางเลือกในการนำผู้ที่มีความเครียด และนอนไม่หลับ

**คุณสมบัติ**

- ชาย-หญิง อายุ 18-45 ปี
- มีภาวะเครียดและนอนไม่หลับ
- ไม่มีปัญหาสุขภาพด้านการรับกลิ่น
- มีการรับรองว่าได้รับวัคซีน covid-19 ครบ 2 เข็มแล้ว (หรือได้รับ booster เข็มที่ 3 แล้ว)

สามารถทำแบบประเมินคุณภาพการนอนหลับและ ความเครียดได้ QR code ด้านล่าง

แบบประเมินความเครียด แบบบี

สนใจเข้าร่วมโครงการติดต่อ สท.ดร.สมฤดี สุขฤกษ์กุล 089-6055066, 086



# Assist.Prof. Ruttachuk Rungsiwiwut, DVM

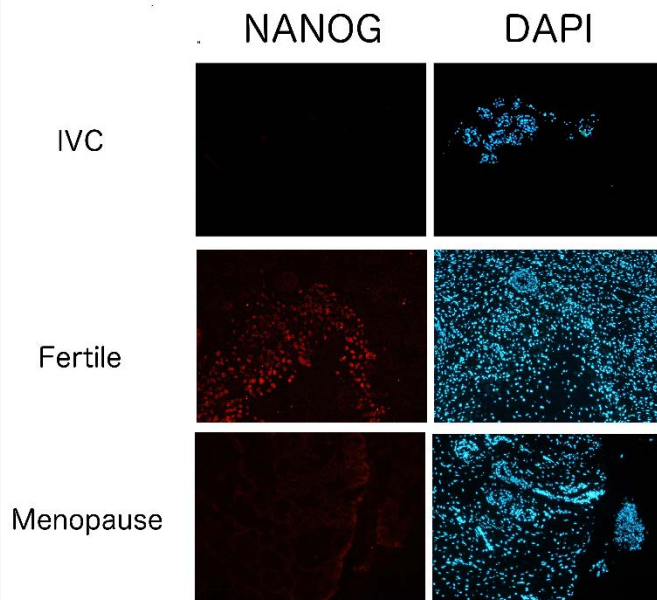


## Research of interest:

- Stem Cell Biology and Application in infertility treatment
- Stem Cells in Animal Models for Human Diseases

E-mail: [ruttachuk@g.swu.ac.th](mailto:ruttachuk@g.swu.ac.th)

Comparison of NANOG expression in the ovarian cortex of reproductive and post-pubertal women.



Use of mesenchymal stem cells to treat chronic wounds in dogs.



2A: ก่อนทำการฉีดเซลล์ต้นกำเนิด

2B: สองสัปดาห์หลังการฉีดเซลล์ต้นกำเนิด



# Assist.Prof. Yamaratee Jaisin



Research of interest: *In vitro* studying the mechanism of action of herbal extracts on antioxidant, anti-inflammatory, skin whitening, anti-aging and cell death. Analyzing the important biologically active substances and developing into innovations.

E-mail: yamaratee@g.swu.ac.th

## Example

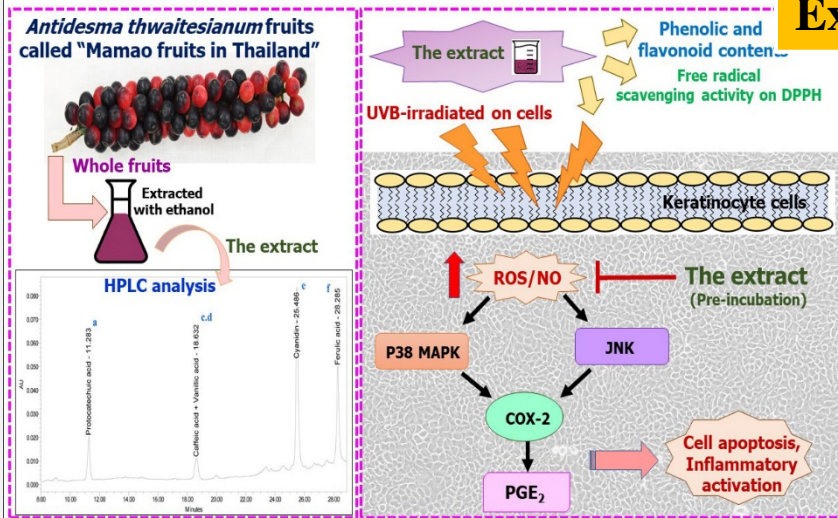
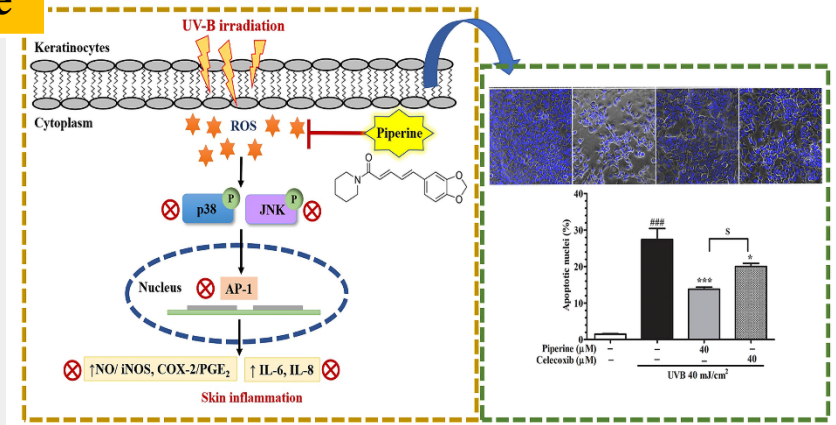


Photo-Protective and Anti-Inflammatory Effects of *Antidesma thwaitesianum* Müll. Arg. Fruit Extract against UVB-Induced Keratinocyte Cell Damage. *Molecules* 2022, 27, 5034.



Antioxidant and anti-inflammatory effects of piperine on UV-B-irradiated human HaCaT keratinocyte cells. *Life Science* 2020, 263, 118607.



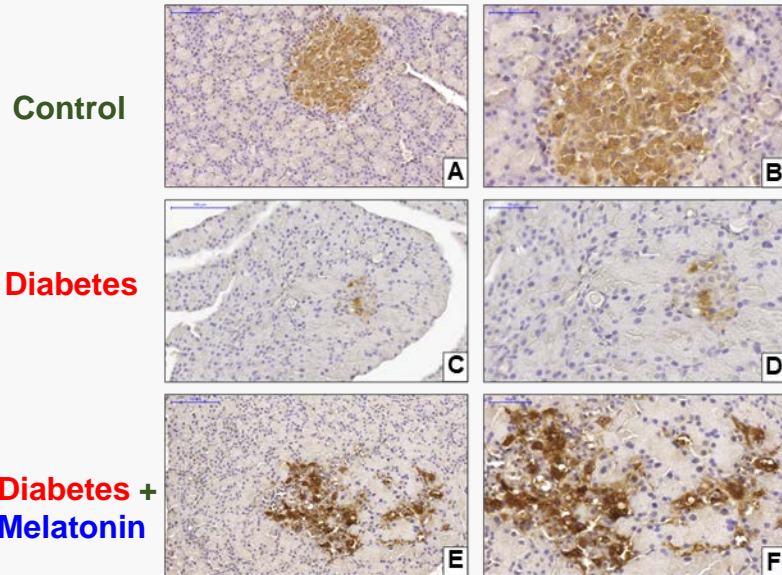
# Assist.Prof. Ratchadaporn Pramong

Research of interest: Studying the effects of melatonin and melatonin extracts from plants to complications of type 1 diabetes in organs such as the pancreas, brain, liver, kidneys, and testes

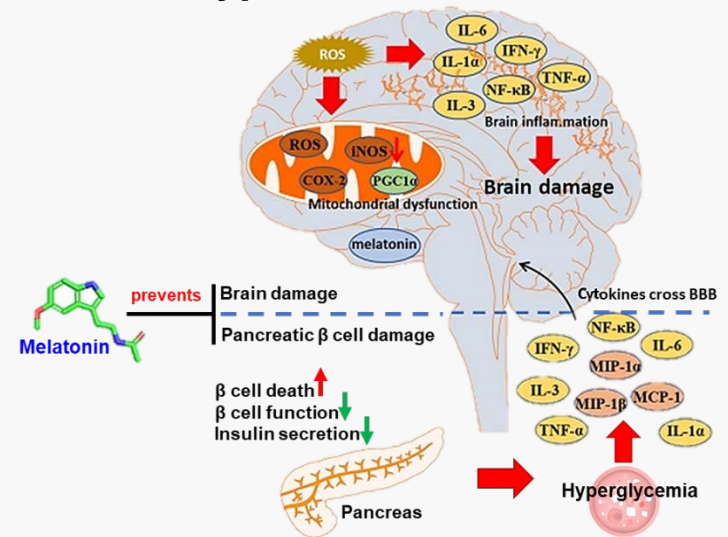
E-mail: [rpramong@gmail.com](mailto:rpramong@gmail.com)



## Effect of melatonin on pancreatic beta cell damage in type 1 diabetic rats



## Protective effect of melatonin against brain damage and cognitive decline in type 1 diabetic rats





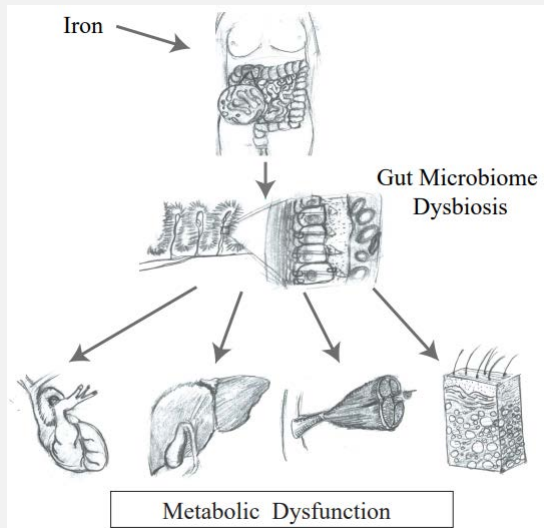
# Dr. Sivaporn Wannaiampikul



Research of interest: Human genetics, the study of causes and mechanisms of genetic diseases including genetic factors, diagnosis and prediction of disease, and pharmacogenomics.

E-mail: [sivaporn@g.swu.ac.th](mailto:sivaporn@g.swu.ac.th)

## The role of iron homeostasis in the microbiome mediated modulation of metabolic syndrome



## Development of rapid diagnostic tests for SNPs in urate transporters genes in hyperuricemia and gout among Thai population

To develop a rapid diagnostic test (RDT) using candidate variants that are SNPs of various alleles of urate transporter genes in hyperuricemia and gout patients among Thai population and other ethnics through evaluation or screening for genetic risks that promote hyperuricemia in patients with gout.



# Dr. Punyabhorn Rattanacheeworn



## Research of interest:

- ▷ Pharmacogenomics
- ▷ CYP450 and drug transporter activity
- ▷ Clinical pharmacokinetics

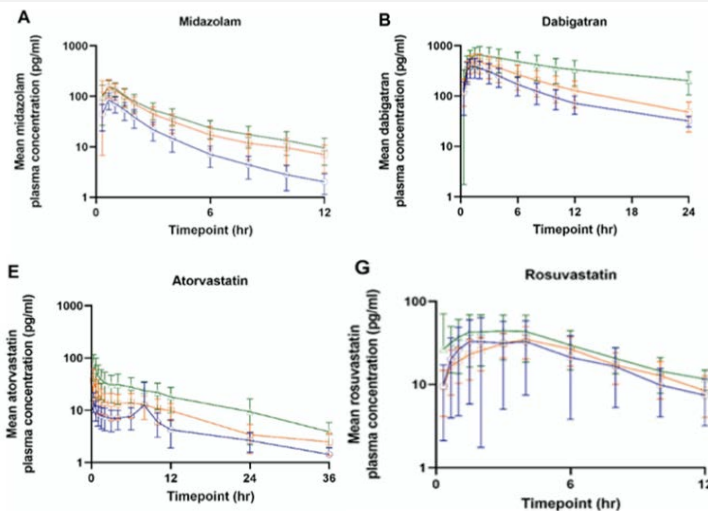
## Ongoing trials...

- Genetic variations in diabetes mellitus associated with the development of Tuberculosis in the Thai population
- The association of TLR1 variant rs5743557 with tuberculosis susceptibility in Thai population

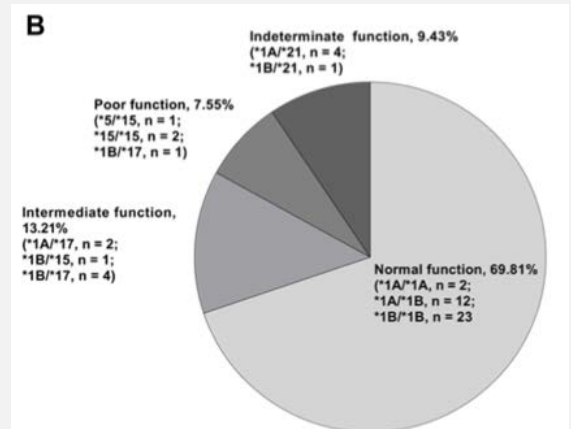
E-mail: [punyabhorn@swu.ac.th](mailto:punyabhorn@swu.ac.th)

## Quantification of CYP3A and Drug Transporters Activity in Healthy Young, Healthy Elderly and Chronic Kidney Disease Elderly Patients by a Microdose Cocktail Approach

“The plasma concentration-time curves of microdose cocktail probe substrates in three groups of participants”



## SLCO1B1 and ABCG2 Gene Polymorphisms in a Thai population



“Genotype and predicted phenotypes of *SLCO1B1* gene”



# Dr. Petcharat Chiangsaen

Research of interest: Effects of bioactive compounds/or extracts on

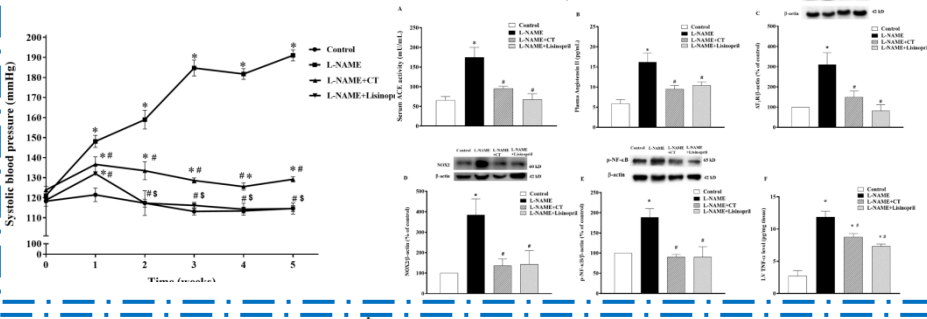
- Hypertension
- Endothelial Dysfunction
- Reproductive Physiology
- Renin-Angiotensin System

E-mail: [petcharatc@g.swu.ac.th](mailto:petcharatc@g.swu.ac.th)

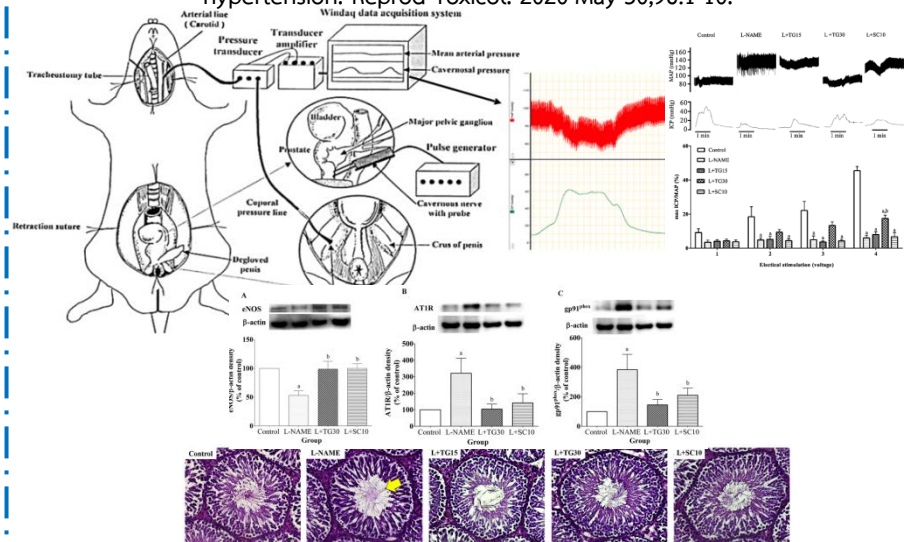


Butterfly Pea Flower (*Clitoria ternatea* Linn.) Extract Ameliorates Cardiovascular Dysfunction and Oxidative Stress in Nitric Oxide-Deficient Hypertensive Rats.

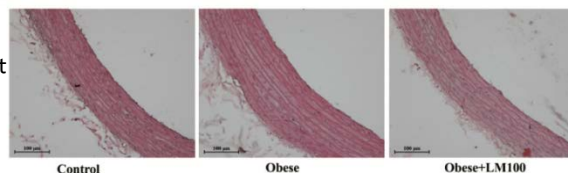
Antioxidants (Basel). 2021 Mar 27;10(4):523.



Tangeretin ameliorates erectile and testicular dysfunction in a rat model of hypertension. *Reprod Toxicol.* 2020 May 30;96:1-10.



Effects of Limonin on Vascular Function and Morphology in a Rat Model of Obesity. *Srinagarind Medical Journal.* 2022 (37, 2)





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between

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THE DOCTORAL AND MASTER PROGRAM IN PHARMACOLOGY AND TOXICOLOGY,

SCHOOL OF MEDICINE, TZU CHI UNIVERSITY, TAIWAN

and

THE APPLIED MEDICAL SCIENCES PROGRAM, FACULTY OF MEDICINE, SRINAKHARINWIROT UNIVERSITY,  
THAILAND

The Master Program in Biomedical Sciences and The Doctoral and Master Program in Pharmacology and Toxicology, School Of Medicine, TZU CHI UNIVERSITY and the Applied Medical Sciences Program, Faculty of Medicine, SRINAKHARINWIROT UNIVERSITY pursuing the beneficial research collaboration, hereby agree upon the following terms and conditions for Agreement for the Exchange of Graduate Students.

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### 4. VISA

Exchange students shall be responsible for obtaining any necessary visas and/or otherwise complying with all immigration laws and regulations of the host country. The host university shall assist in such efforts, but shall not have any responsibility to assure the granting of any visas, permits or approvals.

The Agreement shall commence on the date when the representatives of both programs affix their signatures and shall continue thereafter for five (5) years subject to revision or modification by mutual agreement. Either institution may, by notice in writing of no less than six (6) months, terminate this Agreement but any participating students who have commenced at either institution, or whose exchange procedures have been started by the date of termination, may complete their course of research. The institutions will confer concerning the renewal of this Agreement six (6) months prior to its expiration.

Signed for and on behalf of  
Tzu Chi University  
by

\_\_\_\_\_  
Ingrid Liu  
President  
Date:

\_\_\_\_\_

\_\_\_\_\_  
Tsung-Ying Chen  
Dean, College of Medicine  
Date:

\_\_\_\_\_

\_\_\_\_\_  
Chang-Chih Kuo  
Director of Master Program in Biomedical Sciences  
Date:

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\_\_\_\_\_  
Chih-Chia Lai  
Director of Doctoral and Master Program in  
Pharmacology and Toxicology  
Date:

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Signed for and on behalf of  
Srinakharinwirot University  
by

\_\_\_\_\_  
Somchai Santiwatanakul  
President  
Date:

\_\_\_\_\_

\_\_\_\_\_  
Nantana Choomchuay  
Dean, Faculty of Medicine  
Date:

\_\_\_\_\_

\_\_\_\_\_  
Srisombat Puttikamonkul,  
Head of Program in Applied Medical Sciences  
Date:

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