



Curriculum Vitae

Institute of Nutrition, Mahidol University (INMU)

999 Phutthamonthon 4 Rd., Salaya, Phutthamonthon

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Current position: Research Technical Officer

Education: Bachelor of Science (B.Sc.) Department of Microbiology, Slipakorn
University, Nakhon Pathom, Thailand

Research Interest and Expertise

- Bioactive compound using HPLC, LC-MS/MS, GC-MS/MS
- Antioxidant and enzyme activity using microplate reader

Research Experiences

- Bioactive compound (anthocyanins, phenolics and flavonoids) using HPLC, LC-MS/MS, GC-MS/MS
- Antioxidant (ORAC, TPCs, FRAP, DPPH, ABTs, and total anthocyanin) and enzyme activity (lipase, amylase, glucosidase) using microplate reader

Training

- อบรมหลักสูตร ความปลอดภัยในการใช้ห้องปฏิบัติการ เรื่อง “มาตรฐานและแนวปฏิบัติเพื่อความปลอดภัยในการห้องปฏิบัติการ” (สถาบันโภชนาการ, online)
- อบรมการใช้เครื่องมือวิทยาศาสตร์ Bench Top NMR และเครื่อง Multi-Mode Microplate Reader
- อบรมเชิงปฏิบัติการด้านจรรยาบรรณการวิจัย หัวข้อ Data Management
- อบรมโครงการเพิ่มเสริมสร้างประสิทธิภาพการปฏิบัติงานบุคลากรสถาบันโภชนาการ
- อบรมภาคทฤษฎี การใช้เครื่องมือวิทยาศาสตร์ Liquid Chromatography Quadrupole Time-of-Flight Mass Spectrometry (LC-QTOF-MS)
- อบรมภาคทฤษฎี UltiMate 3000 HPLC and TSQ Quantis Triple Quadrupole MS
- อบรมการใช้เครื่องมือวิทยาศาสตร์ Synergy H1 microplate reader
- อบรมเชิงปฏิบัติการ ความปลอดภัยทางชีวภาพและการรักษาความปลอดภัยทางชีวภาพ



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- อบรมจริยธรรมการวิจัยในมนุษย์
- อบรมภาคบรรยาย เครื่องวัดขนาดของอนุภาคนาโน และความต่างศักย์บนผิวอนุภาค
- อบรมภาคบรรยาย เครื่องวิเคราะห์ค่าการเกิดออกซิเดชัน (Oxidation Stability)
- อบรมเชิงปฏิบัติการ กล้องจุลทรรศน์อิเล็กตรอนแบบส่องกราด (Scanning electron microscope, SEM) ชนิด Tabletop
- อบรมการใช้เครื่องมือวิทยาศาสตร์ LC-ICPMS/MS-ภาคทฤษฎี
- อบรมภาคทฤษฎีความรู้เรื่อง From Lab to Nutrition: Analytical Approaches to Resistant starch
- การอบรมปฐมพยาบาล CPR & AED ฝึกปฏิบัติจริง เพื่อช่วยชีวิตได้อย่างมั่นใจ

Publications

National

- Khemthong C, Chupeerach C, On-nom N, Suttisansanee U, **Thangsiri S**, Chamchan R, Muangpracha N. Comparative Study of the Glycemic Index of High Fiber Rice Flour Noodles and Instant (non-fried) Wheat Flour Noodles in Healthy Subjects KKU Journal for Public Health Research. 2025 May 21; 18(1) 109-119.

International

1. Kittibunchakul S, Whanmek K, **Thangsiri S**, Inthachat W, Prihandari R, Winuprasith T, Temviriyankul P, Suttisansanee U, Kemsawasd V. Enzymatic hydrolysis of house cricket (*Acheta domesticus*) protein for the production of bioactive peptides with potential anti-aging and anti-NCD activities. *Future Foods*. 2025 Nov 20:100851.

2. Wangchuk T, On-Nom N, Suttisansanee U, Khemthong C, Chamchan R, **Thangsiri S**, Chupeerach C. Influence of Sodium Reduction Using KCL and MSG on the Nutritional Profile and Consumer Acceptability of Bhutanese Cheese Curries. *Journal of Health Science and Medical Research*. 2025 Jun 10;43(4):20251159.

3. Inthachat W, Promyos N, Suttisansanee U, Chamchan R, **Thangsiri S**, Chantong B, Pitchakam P, Temviriyankul P. Microwave-Assisted Optimization Extraction for Green Chili Paste and Investigation of Its Alpha-Glucosidase Inhibitory Activity with Molecular Docking and Molecular Dynamics Simulation for Anti-Diabetic Potential. *Journal of Agriculture and Food Research*. 2025 Jun 24:102130.



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4. Temviriyankul P, **Thangsiri S**, Inthachat W, On-Nom N, Sahasakul Y, Aursalung A, Chupeerach C, Suttisansanee U. Elucidation of phenolic profile and bioactive potential of *Aeginetia indica* L.: A comparative study between newly discovered yellow and native purple flowers. *Journal of Agriculture and Food Research*. 2025 Aug 1;22:102158.

5. **Thangsiri S**, Inthachat W, Temviriyankul P, Sahasakul Y, Trisonthi P, Pan-Utai W, Siriwan D, Suttisansanee U. Bioactive compounds and in vitro biological properties of *Arthrospira platensis* and *Arthrospira maxima*: a comparative study. *Scientific Reports*. 2024 Oct 11; 14(1): 23786.

6. Kemsawasd V, Karnpanit W, **Thangsiri S**, Wongputtisai P, Kanpiengjai A, Khanongnuch C, Suttisansanee U, Santivarangkna C, Kittibunchakul S. Efficient recovery of functional biomolecules from shrimp (*Litopenaeus vannamei*) processing waste for food and health applications via a successive co-culture fermentation approach. *Current Research in Food Science*. 2024 Sep 18; 9: 100850.

7. Khemthong C, Suttisansanee U, Chaveanghong S, Chupeerach C, **Thangsiri S**, Temviriyankul P, Sahasakul Y, Santivarangkna C, Chamchan R, Aursalung A, On-Nom N. Physico-functional properties, structural, and nutritional characterizations of *Hodgsonia heteroclita* oilseed cakes. *Scientific Reports*. 2024 Aug 20; 14(1): 19241.

8. **Thangsiri S**, Suttisansanee U, Koirala P, Chathiran W, Srichamnong W, Li L, Nirmal N. Phenolic content of Thai mango peel and its in-vitro antioxidant, anti-cholinesterase, and antidiabetic activities. *Saudi Journal of Biological Sciences*. 2024 May 26: 104033.

9. Kongsung S, Inthachat W, Chantong B, Suttisansanee U, On-Nom N, Chupeerach C, **Thangsiri S**, Pitchakarn P, Temviriyankul P. Box-Behnken design-based optimization of phytochemical extraction from *Diplazium esculentum* (Retz.) Sw. associated with its antioxidant and anti-alzheimer's properties. *Molecules*. 2024 May 8; 29(10): 2204.

10. On-Nom N, **Thangsiri S**, Inthachat W, Temviriyankul P, Sahasakul Y, Aursalung A, Chupeerach C, Suttisansanee U. Optimized conditions for the extraction of phenolic compounds from *Aeginetia indica* L. and its potential biological applications. *Molecules*. 2024 Feb 28; 29(5): 1050.

11. On-Nom N, **Thangsiri S**, Inthachat W, Temviriyankul P, Trisonthi P, Chupeerach C, Siriwan D, Suttisansanee U. Phenolic profiles and in vitro biochemical properties of Thai herb ingredients for chronic diseases prevention. *Scientific Reports*. 2023 Dec 7; 13(1):21690.

12. Inthachat W, **Thangsiri S**, Khemthong C, On-Nom N, Chupeerach C, Sahasakul Y, Temviriyankul P, Suttisansanee U. Green extraction of *Hodgsonia heteroclita* oilseed cake powder to obtain optimal antioxidants and health benefits. *Foods*. 2023 Nov 27; 12(23): 4281.

13. Sahasakul Y, Aursalung A, **Thangsiri S**, Temviriyankul P, Inthachat W, Pongwichian P, Sasithorn K, Suttisansanee U. Nutritional compositions, phenolic contents and antioxidant activities of rainfed rice grown in different degrees of soil salinity. *Foods*. 2023 Jul 28; 12(15): 2870.



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14. Zakaria NH, Whanmek K, **Thangsiri S**, Chathiran W, Srichamnong W, Suttisansanee U, Santivarangkna C. Optimization of cold brew coffee using central composite design and its properties compared with hot brew coffee. *Foods*. 2023 Jun 19; 12(12): 2412.

15. Inthachat W, Temviriyankul P, On-Nom N, Kanoongon P, **Thangsiri S**, Chupeerach C, Suttisansanee U. Optimization of phytochemical-rich *citrus maxima* albedo extract using response surface methodology. *Molecules*. 2023 May 16; 28(10): 4121.

16. On-Nom N, **Thangsiri S**, Inthachat W, Temviriyankul P, Sahasakul Y, Chupeerach C, Pruesapan K, Trisonthi P, Siriwan D, Suttisansanee U. Seasonal effects on phenolic contents and in vitro health-promoting bioactivities of sacred lotus (*Nelumbo nucifera*). *Plants*. 2023 Mar 24; 12(7): 1441.

17. Luu LK, **Thangsiri S**, Sahasakul Y, Aursalung A, Inthachat W, Temviriyankul P, On-Nom N, Chupeerach C, Suttisansanee U. Nutrients, phytochemicals and in vitro disease prevention of *Nephelema hypoleucum* Kurz fruit. *Nutrients*. 2023 Feb 14; 15(4): 950.

18. Piseskul J, Suttisansanee U, Chupeerach C, Khemthong C, **Thangsiri S**, Temviriyankul P, Sahasakul Y, Santivarangkna C, Chamchan R, Aursalung A, On-nom N. Optimization of enzyme-assisted mechanical extraction process of *Hodgsonia heteroclita* oilseeds and physical, chemical, and nutritional properties of the oils. *Foods*. 2023 Jan 8; 12(2): 292.

19. Chupeerach C, Temviriyankul P, **Thangsiri S**, Inthachat W, Sahasakul Y, Aursalung A, Wongchang P, Sangkasa-Ad P, Wongpia A, Polpanit A, Nuchuchua O, Suttisansanee U. Phenolic profiles and bioactivities of ten original lineage beans in Thailand. *Foods*. 2022 Dec 3; 11(23): 3905.

20. Subedi S, Suttisansanee U, Kettawan A, Chupeerach C, Khemthong C, **Thangsiri S**, On-Nom N. Food fortification of instant pulse porridge powder with improved iron and zinc bioaccessibility using roselle calyx. *Nutrients*. 2022 Sep 30; 14(19): 4070.

21. Sirichai P, Kittibunchakul S, **Thangsiri S**, On-Nom N, Chupeerach C, Temviriyankul P, Inthachat W, Nuchuchua O, Aursalung A, Sahasakul Y, Charoenkiatkul S, Suttisansanee U. Impact of Drying Processes on Phenolics and In Vitro HealthRelated Activities of Indigenous Plants in Thailand. *Plants*. 2022; 11: 294.

22. Wannasaksri W, Temviriyankul P, Aursalung A, Sahasakul Y, **Thangsiri S**, Inthachat W, On-Nom N, Chupeerach C, Pruesapan K, Charoenkiatkul S and Suttisansanee U. Influence of Plant Origins and Seasonal Variations on Nutritive Values, Phenolics and Antioxidant Activities of *Adenia viridiflora* Craib., an Endangered Species from Thailand. *Foods*. 2021; 10: 2799.

23. Romruen U, **Thangsiri S**, Pongsutas T, Bangyeekhun E. Chemically Induced Mutagenesis in The King Oyster Mushroom *Pleurotus eryngii* to Generate High-Temperature Tolerant Strain. *Journal of Experimental Biology and Agricultural Sciences*. 2021; 9(6):831-836.



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24. Temviriyankul P, Sritalahareuthai V, Promyos N, **Thangsiri S**, Pruesapan K, Srinuanchai W, Nuchuchua O, Siriwan D, On-nom N and Suttisansanee U. The effect of sacred lotus (*Nelumbo nucifera*) and its mixtures on phenolic profiles, antioxidant activities, and inhibitions of the key enzymes relevant to Alzheimer's disease. *Molecules*. 2020; 25(16): 3713.

25. Temviriyakul P, Sritalahareuthai V, Na Jom K, Jongruaysup B, Tabtimsri S, Pruesapan K, **Thangsiri S**, Inthachat W, Siriwan D, Charoenkiatku S and Suttisansanee U. Comparison of phytochemicals, antioxidant, and in vitro antiAlzheimer properties of twenty-seven *Morus* spp. cultivated in Thailand. *Molecules*. 2020; 25(11): 2600.