



## Curriculum Vitae

Institute of Nutrition, Mahidol University (INMU)

999 Phutthamonthon 4 Rd., Salaya, Phutthamonthon

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**Current position** Researcher, Human Nutrition Unit  
นักปฏิบัติการวิจัย หน่วยมนุษยโภชนาการ

### Education

2013-2017 M.Sc. (Forensic science), Faculty of Medicine Siriraj Hospital,  
Mahidol University, Thailand

2009-2012 B.Sc. (Medical Technology), Faculty of Allied Health Sciences,  
Naresuan University, Thailand

### Research Interest and Expertise

- Metabolomic analysis of biomolecule, biological sample and food
- Proteomic analysis & Protein Identification by LC-MS/MS
- Biomarker analysis in human sample (Macronutrient & Micronutrient)
- Recombinant protein expression by *E.coli* cell
- DNA, Short Tandem Repeats (STRs), SNPs analysis
- Personalized nutrition

### Research Experiences

- Research Scientist of Research & Development department, Establishment of Mahidol University Bio-industrial Development Center
  - o Bacterial cultivation for target recombinant protein over expression
  - o Protein purification and protein analysis (SDS-PAGE, Western blot, ELISA, Capillary Electrophoresis)
  - o Protein Identification: In-gel & In-soluble digestion by LC-QTOF
  - o Quantitation amount of sample by LC-QQQ
- Untargeted metabolomics analysis by LC-QTOF
- Ionomics profiling analysis by ICP-MS
- Biological sample analysis in Medical Laboratory (Human and animal sample)
- Certificate of medical technologist license

### Training

- o Liquid chromatography mass spectrometry (LC-QTOF and LC-QQQ)
- o Next generation DNA Sequencing (Oxford Nanopore & MiSeq i100)
- o Inductively Coupled Plasma Mass Spectrometry (ICP-MS)



- o Capillary Electrophoresis, PA 800 plus
- o Method development, Method validation and Method verification
- o SOP & WI Writing for ISO & GMP
- o Biosafety and Chemical safety

## Publications

### National

1. Pankla, R., Jeekeeree, W., **Khaoplab, J.**, Laypak, S., Chopel, K., & Panomket, P. (2013). Detection of microfilaria in Myanmar immigrant workers by modified Knott's concentration technique. *J. Med. Tech. Phy. Ther*, 25, 43-49.

### International

1. Thongkum, W., Yasamut, U., Chupradit, K., Sakkhachornphop, S., Wipasa, J., Sornsuwan, K., Juntit, O., Pornprasit, R., Thongkamwitoon, W., Chaichanan, J., **Khaoplab, J.**, Chanpradab, C., Kasinrerak, W., & Tayapiwatana, C. (2021). Latticed Gold nanoparticle conjugation via monomeric streptavidin in lateral flow assay for detection of autoantibody to Interferon-Gamma. *Diagnostics*, 11(6), 987. <https://doi.org/10.3390/diagnostics11060987>
2. Saiyasombat, W., Yimpech, C., Chathiran, W., **Chimasangkanan, J.**, & Srichamnong, W. (2025). Effect of microencapsulation using  $\beta$ -cyclodextrin and  $\beta$ -glucan as coating agents on physicochemical properties and phytocannabinoids retention of cannabis flower oil extract. *NFS Journal*, 38, Article 100209. <https://doi.org/10.1016/j.nfs.2024.100209>
3. Chathiran, W., Varatojo, L., **Chimasangkanan, J.**, Saiyasombat, W., & Srichamnong, W. (2025). Effect of Heat Processing on Major Psychoactive Compounds and Total Phenolic Content in Psychotropic Plants: Cannabis (*Cannabis Sativa*) and Kratom (*Mitragyna Speciosa*) Leaves. *Cannabis and cannabinoid research*, 10(5), 598–608. <https://doi.org/10.1089/can.2024.0201>
4. Saiyasombat, W., Chathiran, W., **Chimasangkanan, J.**, Bromage, S., Borelli, T., Hunter, D., & Srichamnong, W. (2025). Filling the Gaps: Advancing Neglected and Underutilised Species and Knowledge Systems in Thailand for Food Security and Environmental Sustainability. *Journal of Sustainability*, 1(2). <https://doi.org/10.55845/jos-2025-1263>



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### Poster presentation

1. The protein patterns along with protein identification and the untargeted metabolomics profile of *Wolffia globosa* (Kai-Pum) were analyzed using Liquid Chromatography–High-Resolution Mass Spectrometry (LC-HRMS).  
(First author & Presenter)  
**International conference:** Nexus 2025 “The Intersection of Complexity, Networks, Algorithms, & Applications” at Centre for Theoretical Physics & Natural Philosophy – NAS, Mahidol University, Nakhonsawan Campus, Nakhon Sawan, Thailand. 17 March 2025
2. Evaluation of antioxidant properties, untargeted metabolomics profiling, and protein identification using Liquid Chromatography-Mass Spectrometry (LC-MS) across various Thai rice varieties.  
(First author & Presenter)  
**International conference:** 73<sup>rd</sup> Conference on Mass Spectrometry and Allied Topics (ASMS 2025) at Baltimore Convention Center, Baltimore, MD, USA. 1 June 2025