Curriculum Vitae

Institute of Nutrition, Mahidol University (INMU)

999 Phutthamonthon 4 Rd., Salaya, Phutthamonthon

Name **Suwapat Kittibunchakul, Ph.D.**

E-mail address **suwapat.kit@mahidol.ac.th**

Current position **Assistant Professor/ Researcher**

Profile

A food biotechnologist with extensive experience in fermentation, biotransformation and analysis of food materials. Also has hands-on experience in investigating the effects of food components and extracts (e.g., probiotics, prebiotics, peptides and phytochemicals) on health and non-communicable disorders, both in vitro and in clinical trial setting.

Education

2020	Dr.nat.techn./ Ph.D. (Food Biotechnology), University of Natural Resources and Life Sciences, Vienna, Austria
2014	M.Sc. (Food Science for Nutrition), Mahidol University, Thailand
2011	B.Sc. with Honors (Biotechnology), Kasetsart University, Thailand

Research Interest and Expertise

1. Pro- and prebiotics
2. Fermentation/ biotransformation
3. Impacts of food on health and gut microbiota
4. Enzyme technology

Research Experience

1. Isolation and characterization of probiotics
2. Genomic cloning, gene expression and protein purification
3. Production and characterization of microbial-derived products
4. Development of probiotic products and functional fermented foods
5. Investigation of health properties of food materials and products (in vitro and in vivo)

Five-year Publications (Selected)

Dhakal, M., Kemsawasd, V., Whanmek, K., Chathiran, W., Intawong, S., Srichamnong, W., Suttisansanee, U. & **Kittibunchakul, S.** Physicochemical characteristics, volatile components and bioactivities of fermented seasoning sauce produced from cricket (*Acheta domesticus*) meal. Future Foods, 2025, 11, 100505.

Kemsawasd, V., Karnpanit, W., Thangsiri, S., Wongputtisin, 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, 9, 100850.

Kittibunchakul, S., Kemsawasd, V., Hudthagosol, C., Sanporkha, P., Sapwarobol, S. & Suttisansanee, U. The effects of different roasting methods on the phenolic contents, antioxidant potential, and in vitro inhibitory activities of sacha inchi seeds. Foods, 2023, 12(22): 4178.

Kittibunchakul, S., Whanmek, K. & Santivarangkna, C. Physicochemical, microbiological and nutritional quality of fermented cricket (*Acheta domesticus*) paste. LWT, 2023, 189: 115444.

Kittibunchakul, S., Temviriyanukul, P., Chaikham, P. & Kemsawasd, V. Effects of freeze drying and convective hot-air drying on predominant bioactive compounds, antioxidant potential and safe consumption of maoberry fruits. LWT, 2023, 184: 114992.

Kittibunchakul, S., Hudthagosol, C., Sanporkha, P., Sapwarobol, S., Suttisansanee, U. & Sahasakul, Y. Effects of maturity and thermal treatment on phenolic profiles and in vitro health-related properties of sacha inchi leaves. Plants, 2022, 11(11): 1515.

Temviriyanukul, P., **Kittibunchakul, S.**, Trisonthi, P., Kunkeaw, T., Inthachat, W., Siriwan, D. & Suttisansanee, U. *Mangifera indica* 'Namdokmai' prevents neuronal cells from amyloid peptide toxicity and inhibits BACE-1 activities in a *Drosophila* model of Alzheimer's amyloidosis. Pharmaceuticals, 2022, 15(5): 591.

Kittibunchakul, S., Hudthagosol, C., Sanporkha, P., Sapwarobol, S., Temviriyanukul, P. & Suttisansanee, U. Evaluation of sacha inchi (*Plukenetia volubilis* L.) by-products as valuable and sustainable sources of health benefits. Horticulturae, 2022, 8(4): 344.

Temviriyanukul, P., **Kittibunchakul, S.**, Trisonthi, P., Inthachat, W., Siriwan, D. & Suttisansanee, U. Analysis of phytonutrients, anti-mutagenic and chemopreventive effects of tropical fruit extracts. Foods, 2021, 10(11): 2600.

Kittibunchakul, S., Yuthaworawit, N., Whanmek, K., Suttisansanee, U. & Santivarangkna, C. Health beneficial properties of a novel plant-based probiotic drink produced by fermentation of brown rice milk with GABA-producing *Lactobacillus pentosus* isolated from Thai pickled weed. Journal of Functional Foods, 2021, 86: 104710.

Yogeswara, I. B. A., **Kittibunchakul, S.**, Rahayu, E. S., Domig, K. J., Haltrich, D. & Nguyen, T. H. Microbial production and enzymatic biosynthesis of γ-aminobutyric acid (GABA) using *Lactobacillus plantarum* FNCC 260 isolated from Indonesian fermented foods. Processes, 2021, 9(1): 22.

Kanpiengjai, A., Khanongnuch, C., Lumyong, S., Haltrich, D., Nguyen, T. H. & **Kittibunchakul, S.**, Co-production of gallic acid and a novel cell-associated tannase by a pigment-producing yeast, *Sporidiobolus ruineniae* A45.2. Microbial Cell Factories, 2020, 19(1): 95.

Kittibunchakul, S., van Leeuwen S. S., Dijkhuizen, L., Haltrich, D. & Nguyen, T. H., Structural comparison of different galacto-oligosaccharide mixtures formed by β-galactosidases from lactic acid bacteria and bifidobacteria. Journal of Agricultural and Food Chemistry, 2020, 68(15): 4437-4446.

Kittibunchakul, S., Pham, M. L., Tran, A. M. & Nguyen, T. H., β-Galactosidase from *Lactobacillus helveticus* DSM 20075: Biochemical characterization and recombinant expression for applications in dairy industry. International Journal of Molecular Sciences, 2019, 20(4): 947.