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EDUCATION

Queen's University Belfast, Institute for Global Food Security, School of Biological Sciences, UK

Ph.D. in Biological Sciences: Received October 2015

Mahidol University, Faculty of Pharmacy, Bangkok, Thailand

M.Sc. in Biopharmaceutical Sciences: Received April 2007

King Mongkut's University of Technology Thonburi, Faculty of Science, Bangkok, Thailand

B.Sc. in Microbiology: Received March 2003

HONORS AND AWARDS

- Research Award, National Research Council of Thailand (2023)
- Early-career researcher grant, National Research Council of Thailand (2020)
- Metabolomics Society Early Career Travel Award, Metabolomics 2017, Brisbane, Australia (2017)
- The 2016 IFS - Carolina MacGillavry Collaborative Research Award (2016)
- Young Scientist Travel Grant (YSTG), the 14th International Symposium on Rice Functional Genomics (ISRFG 2016), Montpellier, France (2016)
- Research Award, National Research Council of Thailand (2014)
- Invention Award, National Research Council of Thailand (2010)

PUBLICATIONS

Karoonuthaisiri, N., Sittikankeaw, K., Preechaphol, R., Kalachikov, S., Wongsurawat, T.,

Uawisetwathana, U., Russo, J.J., Ju, J., Klinbunga, S., Kirtikara, K. ReproArrayGTS: A cDNA microarray for identification of reproduction-related genes in the giant tiger shrimp *Penaeus monodon* and characterization of a novel nuclear autoantigenic sperm protein (NASP) gene. *Comparative Biochemistry and Physiology, Part D*. 2009. 4: 90-99.

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Leelatanawit R., **Uawisetwathana U.**, Khudet J., Klanchui A., Phomklad S., Wongtripop S., Angthong P., Jiravanichpaisal P., Karoonuthaisiri N. Effects of polychaetes (*Perinereis nuntia*) on sperm performance of the domesticated black tiger shrimp (*Penaeus monodon*). *Aquaculture* 2014. 433: 266-275.

Uawisetwathana U., Graham S., Kamolsukyonyong W., Sukhaket W., Klanchui A., Toojinda T., Vanavichit A., Karoonuthaisiri N., Elliott C. Quantitative ¹H NMR metabolome profiling of Thai Jasmine rice (*Oryza sativa*) reveals primary metabolic response during brown planthopper infestation. *Metabolomics* 2015. 11: 1640-1655. DOI 10.1007/s11306-015-0817-4.

Uawisetwathana U., Rodpai E., Moongkarndi P. Gene expression of cytokeratin 19 and its molecular detection in human breast cancer cell lines. *Journal of Pharmaceutical and Biomedical Analysis* 2015. 28;120:25-31. doi: 10.1016/j.jpba.2015.11.034.

Leelatanawit R., **Uawisetwathana U.**, Klanchui A., Khudet J., Phomklad S., Wongtripop S., Jiravanichpaisal P., Karoonuthaisiri N. Transcriptomic analysis of male black tiger shrimp (*Penaeus monodon*) after polychaete feeding to enhance testicular maturation. *Marine Biotechnology* 2017. doi: 10.1007/s10126-017-9738-8.

Phonsatta N., Luangpituksa P., Figueroa-Espinoza M.C., Lecomte J., Durand E., Villeneuve P., Visessanguan W., Deetae P., **Uawisetwathana U.**, Pongprayoon W. and Panya A. Conjugated autoxidizable triene-based (CAT and ApoCAT) assays: their practical application for screening of crude plant extracts with antioxidant functions in relevant to oil-in-water emulsions. *European Journal of Lipid Science and Technology* 2019. 121;1: 11 pages. doi.org/10.1002/ejlt.201800239.

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Sittikankaew K., Pootakham W., Sonthirod C., Sangsrakru D., Yoocha T., Khudet J., Nookaew I., **Uawisetwathana U.**, Rungrassamee W. and Karoonuthaisiri N. Transcriptome analyses reveal the synergistic effects of feeding and eyestalk ablation on ovarian maturation in black tiger shrimp. *Scientific Reports* 2020. 10:3239. doi.org/10.1038/s41598-020-60192-2

Thiengwittayaporn S., Hongku N., **Uawisetwathana U.** and Sansawat P. When to Use a Condylar Constrained Insert in Non-Stemmed Posterior-Stabilized Total Knee Arthroplasty *Clin Orthop Surg.* 2020. 12(4): 448–455.

Uengwetwanit T., **Uawisetwathana U.**, Arayamethakorn S., Khudet J., Chaiyapechara S., Karoonuthaisiri N., Rungrassamee W. Multi-omics analysis to examine microbiota, host gene expression and metabolites in the intestine of black tiger shrimp (*Penaeus monodon*) with different growth performance. *PeerJ* 2020. 8:e9646. doi.org/10.7717/peerj.9646

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Uawisetwathana U., Situmorang M.L., Arayamethakorn S., Haniswita, Suantika G., Panya A., Karoonuthaisiri N. and Rungrassamee W. Supplementation of Ex-Situ Biofloc to Improve Growth Performance and Enhance Nutritional Values of the Pacific White Shrimp Rearing at Low Salinity Conditions. *Applied Sciences* 2021, 11(10), 4598. doi.org/10.3390/app11104598

Visudtiphole V., Khudet J., Chaitongsakul P., Plaisen S., Siriwattano J., Laiphrom S., Klaysuban A., Raweeratanapong T., Sittikankaew K., Rattanaphan N., Koichai L., Unagul P. and **Uawisetwathana U.** Growth and Lipidomic Analyses of *Penaeus monodon* Larvae Supplemented With *Aurantiochytrium limacinum* BCC52274. *Front. Mar. Sci* 2021. doi.org/10.3389/fmars.2021.771929

Uawisetwathana U., Jamboonsri J., Bamrunghai J., Jitthiang P., Nookaew I. and Karoonuthaisiri N. Metabolite profiles of brown planthopper-susceptible and resistant rice (*Oryza sativa*) varieties associated with infestation and mechanical stimuli. *Phytochemistry* 2022, 194: 113044. doi.org/10.1016/j.phytochem.2021.113044.

Situmorang M.L., **Uawisetwathana U.**, Arayamethakorn S., Karoonuthaisiri N., Rungrassamee W., Haniswita, Bossier P. and Suantika G. Supplementation of ex-situ produced bioflocs improves immune response against AHPND in Pacific whiteleg shrimp (*Litopenaeus vannamei*) postlarvae. *Applied Microbiology and Biotechnology* 2022, doi.org/10.1007/s00253-022-11966-3.

Pongprayoon W., Maksup S., Phaonakrop N., Jaresitthikunchai J., **Uawisetwathana U.**, Panya A. and Roytrakul S. Phosphoproteome analysis reveals chitosan-induced resistance to osmotic stress in rice (*Oryza sativa* L.) seedlings. *Journal of Plant Interactions* 2022. 17: 1, 894-910, doi.org/10.1080/17429145.2022.2114556.

Anghong P., Uengwetwanit T., **Uawisetwathana U.**, Koehorst J.J., Arayamethakorn S., Schaap P.J., Santos V.M.D., Phromson M., Karoonuthaisiri N., Chaiyapechara S. and Rungrassamee W. Investigating host-gut microbial relationship in *Penaeus monodon* upon exposure to *Vibrio harveyi*. *Aquaculture* 2023. 10.1016/j.aquaculture.2023.739252.

Owolabi I.O., Siwarak K., Greer B., Rajkovic A., Dall’asta C., Karoonuthaisiri N., **Uawisetwathana U.**, Elliott C., and Petchkongkaew A. Applications of mycotoxin biomarkers in human biomonitoring for

exposome-health studies: Past, present, and future. *Exposure and Health* 2023. doi.org/10.1007/s12403-023-00595-4.

PATENT

Karoonuthaisiri, N., Charlermroj, R., **Uawisetwathana, U.**, Luxananil, P., Kirtikara, K., Gajanandana, O. Method for foodborne pathogen detection using antibody array (*filed in Thailand in July 14, 2008: No 0801003632*)

Uawisetwathana, U., Jitthiang, P., Jamboonsri, W., Karoonuthaisiri, N. Glutinous rice traceability process using targeted metabolite profile analysis (*filed in Thailand in September 21, 2021: No 2101005758*)

PETITE PATENT

Uawisetwathana, U., Jamboonsri, W., Somboon, T., Karoonuthaisiri, N. Rice traceability detection method using liquid chromatography-orbitrap-mass spectrometry (*filed in Thailand in March 8, 2019: No 1903000597*)

Uawisetwathana, U., Jamboonsri, W., Bamrunghai, J., Jitthiang, P., Karoonuthaisiri, N. A Method for Riceberry traceability by metabolite profiles (*filed in Thailand in March 5, 2022: No 2203000593*)