

Siraphat Taesuwan, PhD

Faculty of Agro-Industry, Chiang Mai University,
Chiang Mai, 50100 Thailand
Telephone: +66 897350953
Email: staesuwan724@gmail.com

Education

PhD, 2018, Nutrition, Cornell University, Ithaca, NY, USA

Dissertation titled "Relationship of choline and trimethylamine-*N*-oxide intake with metabolic and health outcomes in humans"

BS, 2013, Food Science, University of California at Davis, Davis, CA, USA

Current position:

Lecturer, Division of Food Science and Technology, Faculty of Agro-Industry,
Chiang Mai University, Chiang Mai, Thailand, 2018-current

Classes taught:

Undergraduate level

Human Nutrition Survey and Improvement, Chiang Mai University, 2018-current

Food Analysis, Chiang Mai University, 2018-current

Food for Health and Beauty, Chiang Mai University, 2019-current

Undergraduate Seminar, Chiang Mai University, 2018

Graduate level

Advanced Human Nutrition, Chiang Mai University, 2020

Nutrition Metabolism, Chiang Mai University, 2020

Advanced Food Science and Analysis, Chiang Mai University, 2019-current

Development of Functional Food, Chiang Mai University, 2019

Awards and Honorary Distinctions

Global Young Scientists Summit 2020 Thai representative, the National
Research Foundation Singapore, 2020

Ministry of Science and Technology Scholarship, Royal Thai Government,
Thailand, 2008-2018

Partial Doctoral Fellowships, Cornell University, 2013-2018

Conference Travel Grant, Cornell University, 2016

Three-Minute Thesis finalist, Cornell University, 2016

Mary Regan Meyer Prize, College of Agricultural and Environmental
Sciences, University of California, Davis, 2013

Summa Cum Laude, College of Agricultural and Environmental Sciences,
University of California, Davis, 2013

Davis Sensory Science Foundation Scholarship, University of California, Davis, 2012
Food Industry Foundation Scholarship, University of California, Davis, 2011-2012
David D. Peebles Scholarship, University of California, Davis, selected to receive, 2011-2012

Publications

- Leksawasdi N, Taesuwan S, Prommajak T, Techapun C, Khonchaisri R, Sittilop N, Halee A, Jantanasakulwong K, Phongthai S, Nunta R, Kiadtiyot M, Saefung A, Khemacheewakul J. Ultrasonic Extraction of Bioactive Compounds from Green Soybean Pods and Application in Green Soybean Milk Antioxidants Fortification. *Foods*. 2022; 11(4):588. doi:10.3390/foods11040588
- Taesuwan S, McDougall MQ, Malysheva OV, Bender E, Nevins JEH, Devapatla S, Vidavalur R, Caudill MA, Klatt KC. Choline metabolome response to prenatal choline supplementation across pregnancy: A randomized controlled trial. *FASEB*. 2021;35(12). doi:10.1096/fj.202101401RR
- Pakakaew P, Taesuwan S, Phimolsiripol Y, Utama-ang N. Comparison between the Physicochemical Properties, Bioactive Compounds and Antioxidant Activities of Thai and Chinese Garlics. *CAST*. 2022;22(3).
- Taesuwan S, Thammapichai P, Ganz A, Jirarattanarangsri W, Khemacheewakul J, Leksawasdi N. Associations of choline intake with hypertension and blood pressure among older adults in cross-sectional 2011 – 2014 NHANES differ by body mass index and comorbidity status. *Br J Nut*. 2021:1-22. doi:10.1017/S0007114521003068
- Nguyen Doan Mai H, Phan Thi Lan K, Techapun C, Leksawasdi N, Taesuwan S, et al. Quality Evaluation of Butter Cake Prepared by Substitution of Wheat Flour with Green Soybean (Glycine Max L.) Okara. *J Culin Sci Technol*. 2021:1–14. doi:10.1080/15428052.2021.1978363
- Khemacheewakul J, Taesuwan S, Nunta R et al. Validation of mathematical model with phosphate activation effect by batch (R)-phenylacetylcarbinol biotransformation process utilizing *Candida tropicalis* pyruvate decarboxylase in phosphate buffer. *Sci Rep*. 2021;11(11813). doi: 10.1038/s41598-021-91294-0
- Orenbuch A, Fortis K, Taesuwan S, Yaffe R, Caudill MA, Golan HM. Prenatal Nutritional Intervention Reduces Autistic-Like Behavior Rates Among *Mthfr*-Deficient Mice. *Front Neurosci*. 2019;13:383. doi:10.3389/fnins.2019.00383
- Taesuwan S, Vermeylen F, Caudill MA, Cassano PA. Relation of choline intake with blood pressure in the National Health and Nutrition

- Examination Survey 2007–2010. *Am J Clin Nutr.* 2019;109(3):648-655.
doi:10.1093/ajcn/nqy330
- Taesuwan S, Cho CE (co-first), Malysheva OV, Bender E, King JH, Yan J, Thalacker-Mercer AE, Caudill MA. The metabolic fate of isotopically labeled trimethylamine-N-oxide (TMAO) in humans. *J Nutr Biochem.* 2017;45:77–82.
doi:10.1016/j.jnutbio.2017.02.010
- Cho CE, Taesuwan S, Malysheva OV, Bender E, Tulchinsky NF, Yan J, Sutter JL, Caudill MA. Trimethylamine-N-oxide (TMAO) response to animal source foods varies among healthy young men and is influenced by their gut microbiota composition: A randomized controlled trial. *Mol Nutr Food Res.* 2017;61(1):1600324. doi:10.1002/mnfr.201600324
- Cho CE, Taesuwan S, Malysheva OV, Bender E, Yan J, Caudill MA. Choline and one-carbon metabolite response to egg, beef and fish among healthy young men: A short-term randomized clinical study. *Clin Nutr Exp.* 2016;10:1–11. doi:10.1016/j.yclnex.2016.10.002
- Ganz AB, Shields K, Fomin VG, Lopez YS, Mohan S, Lovesky J, Chuang JC, Ganti A, Carrier B, Yan J, Taesuwan S, Cohen VV, Swersky CC, Stover JA, Vitiello GA, Malysheva OV, Mudrak E, Caudill MA. Genetic impairments in folate enzymes increase dependence on dietary choline for phosphatidylcholine production at the expense of betaine synthesis. *FASEB.* 2016;30(10):3321–3333. doi:10.1096/fj.201500138RR
- Davenport C, Yan J, Taesuwan S, Shields K, West AA, Jiang X, Perry CA, Malysheva OV, Stabler SP, Allen RH, Caudill MA. Choline intakes exceeding recommendations during human lactation improve breast milk choline content by increasing PEMT pathway metabolites. *J Nutr Biochem.* 2015;26(9):903–911. doi:10.1016/j.jnutbio.2015.03.004

Scientific Presentations and Seminars

- “Human Evidence for Choline Intake Promotion Across Lifespan”, Oral Presentation, Tri-university symposium, Kagawa University, Online, 2021
- “How sound methodology gets a paper published in a high impact journal?”, Master and doctoral seminar, King Mongkut's Institute of Technology Thonburi, Online, 2021
- “Choline Intake Was Mildly Associated With Hypertension Among Older Adults in Cross-Sectional NHANES 2011–2014”, Poster Presentation, Nutrition Live Online, 2021
- “Global Young Scientist Summit (GYSS2020)”, 2nd Science Camp for 23rd JSTP and 1st-2nd JSTP-SCB participants, Junior Science Talent Project (JSTP), Online, Thailand, 2020
- “ฉลาดโภชนาการ: นิยาม การแสดงฉลาด ประโยชน์รูปแบบ และวิธีการอ่านฉลาดโภชนาการ”, Entrepreneur up-skill workshop, Science and Technology Park Chiang Mai University, Chiang Mai, Thailand, 2020

- “ลดเกลือเพื่อสุขภาพที่ดี: แนวทางในการลดการรับประทานโซเดียมเพื่อลดความเสี่ยงต่อโรค”, Invited speaker, Food Safety Forum: ลดเกลือโซเดียมในผลิตภัณฑ์อาหารสำเร็จรูป ปี 3, Food Science and Technology Association of Thailand, Chiang Mai, Thailand, 2019
- “The Metabolic Fate of Isotopically-Labeled Trimethylamine-N-oxide (TMAO) in Humans”, Oral Presentation, Experimental Biology, San Diego, CA, 2016
- “A doubling of maternal choline Intake During Lactation Increases Phosphocholine Concentration in Breast Milk”, Poster Presentation, Nutrition Research Symposium, Cornell University, NY, 2014

Research projects

- “Study of metabolic crosstalk between choline derivatives and novel AMPK-activating plant chalcones in the prevention of diabetic nephropathy”, Principal Investigator, Research Grant for New Scholar, Office of the Permanent Secretary for Higher Education, Science, Research and Innovation, 2021-2023
- “Development of choline-enriched, northern-styled, ready-to-eat chilled meals from local ingredients—a food business opportunity for healthy aging”, Principal Investigator, Office of National Higher Education Science Research and Innovation Policy Council, 2021-2022
- “An accurate and precise choline metabolite quantification method using isotope-dilution liquid chromatography tandem mass spectrometry (LC-MS/MS) and incorporation of choline values into the Thai Food Composition Database”, Principal Investigator, Fundamental Fund, Thailand Science Research and Innovation, 2021-2022
- “Survey of choline intake in Chiang Mai University students”, Principal Investigator, Ministry of Science and Technology grant, 2021-2022
- “Survey of folate intake in Chiang Mai University students”, Principal Investigator, Young researcher grant, Chiang Mai University, 2021-2022
- “Relationship between choline intake and blood pressure among the elderly in the National Health and Nutrition Examination Survey 2011-14”, Principal Investigator, Young researcher grant, Faculty of Agro-Industry, Chiang Mai University, 2018-2019

Journal Reviewer

- American Journal of Clinical Nutrition, 2021—current
- Journal of Food Processing and Preservation, 2020—current
- Malaysian Journal of Nutrition, 2020—current
- Food and Applied Biosciences Journal, 2019-current

Scientific, Honorary and Professional Societies

American Society for Nutrition, 2015-16, 2021-current

American Association for the Advancement of Science, 2013-16

Institute of Food Technologists, 2011-2012

Non-Academic Positions

Nutrition Consultant, Fusion Company Ltd. 2021-current

Other Academic-Related Activities

Innovative Teaching Scholar Participant, Stanford Thailand Research Consortium, 2020-2021

Innovative Teaching Scholar Coach, Stanford Thailand Research Consortium, 2021-current