



Curriculum Vitae

Institute of Nutrition, Mahidol University (INMU)
999 Phutthamonthon 4 Rd., Salaya, Phutthamonthon
Nakhon Pathom 73170, Thailand

Name Sueppong Gowachirapant, Ph.D.
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Current position Senior Researcher

Education

- 2014 Ph.D. (Human Nutrition), Division of Human Nutrition, Wageningen University, 6700 EV Wageningen, The Netherlands
2002 M.Sc. (Food and Nutrition for Development), Institute of Nutrition, Mahidol University, Salaya, Nakhon Pathom 73170, Thailand
1997 B.Sc. (Food Technology), Silpakorn University, Nakhon Pathom 73000, Thailand

Research Interest and Expertise

1. Micronutrients (Iodine, Iron)
2. Maternal and child nutrition
3. Food loss and food waste

Research Experiences

1. Long-term iron absorption and loss in overweight/obese Thai middle-aged women
2. Assessing long-term iron absorption and loss in Thai adults with non-transfusion-dependent Thalassemia (NTDT) using a novel stable iron isotope dilution method
3. A stable isotope study in young iron-depleted Thai women to evaluate the bioavailability of an oat protein-based iron delivery system
4. Iodine status of the indigenous peoples (Karen) living in Laiwo subdistrict, the Sangkhlaburi district, Kanchanaburi province, Thailand
5. Training activities to measure, monitor and reduce food waste in processing, distribution and in retail in micro- small and medium enterprises in Thailand and to document case studies
6. Testing a natural polyphenol supplement to inhibit dietary iron absorption in Thai adults with iron-loading thalassemia: a stable isotope study
7. Climate change resilience of indigenous socioecological systems (RISE)
8. Iron absorption from an iron fortified follow-up formula with and without the addition of a synbiotic or human milk oligosaccharides
9. Surveys of food waste in processing, distribution and retail in micro, small and medium enterprises
10. Optimizing oral iron supplementation regimens during pregnancy using serum hepcidin profiles and iron stable isotopes
11. Assessing iron requirements of infants using the stable iron isotope dilution method
12. Iron bioavailability of high surface area ferric phosphate in Thai women
13. Maternal iron absorption and utilization and iron transfer to the fetus during pregnancy in normal weight and overweight/obese women and the effects on infant iron status
14. Association between body composition and physical activity in Thai elementary school children
15. Promoting early life nutrition intervention within maternal and child health care
16. Effects of iodine supplementation in mildly iodine-deficient pregnant women on child development at 4-6 years old
17. Prevalence of iodine deficiency in pregnant women in south central coast Vietnam
18. INFORMAS (Thailand)



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19. Study of association between nutritional status, diet, and physical activity of lactating women with breast milk intake, body fat of lactating women, and nutritional status of infants during 0-6 months post-partum
20. Capacity building of village health volunteers on food and nutrition knowledge for improving elderly health: a study in Nakhon Pathom province
21. Infant feeding practices in transition: Breast milk intake, complementary feeding and body composition during infancy
22. Effects of iodine supplementation in mild-to-moderately iodine-deficient pregnant women on pregnancy outcome and infant development in Thailand
23. Determination of the urinary iodine concentrations in matched pairs of pregnant women and their school-aged children in area of marginal iodine nutrition in Thailand
24. Iron absorption and utilization in thalassemia trait: does iron fortification pose a risk
25. Survey of Thai-Muslim health status
26. A comparison of electrolytic and hydrogen-reduced elemental iron powders as cereal food fortificants in Thai women of reproductive age
27. Assessment of the efficacy of a seasoning powder fortified with iron, zinc, vitamin A, and iodine on the micronutrient status, growth and body composition, cognitive function, and morbidity of rural primary school children from northeast Thailand
28. International collaborative study of cardiovascular disease in ASIA
29. Effects of carrot consumption on plasma carotenoids and lymphocyte subpopulations in healthy subjects

Training/Workshop

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| 2024 | School Meal Case Study: Thailand (School Meals Coalition) |
| 2024 | Regional School Nutrition Workshop (UNICEF) |
| 2023 | Short-term Training Course on Nutrition and Food Security for Lao Nutrition Policy Makers (EU) |
| 2022 | Short-term Training Course on Nutrition and Food Security for Lao Nutrition Policy Makers (EU) |
| 2018 | Specialised Training Course on Incorporation of Nutrition in Food System: Applications in Policies and Programmes with Specific Reference to Bangladesh (FAO)
(INMU, Nakhon Pathom, Thailand) |
| 2017 | Regional Workshop on Data Management and Data Evaluation (IAEA)
(Bangkok, Thailand) |
| 2016 | Expert group consultation to review draft strategic action plan for tackling the dual burden of malnutrition in South-East Asia Region (WHO/SEARO, New Delhi, India) |
| 2015 | The 11 th South East Asian Nutrition Leadership Program (SEANLP)
(Jakarta, Indonesia) |
| 2015 | International Training on Household Food Security for Nutrition Well-Being
(INMU, Nakhon Pathom, Thailand) |
| 2015 | Regional Training Course on Assessment of Body Composition and Physical Activity (IAEA)
(Manila, Philippines) |
| 2015 | Group Scientific Visit on Field Work Training for Human Milk Assessment (IAEA)
(INMU, Nakhon Pathom, Thailand) |
| 2014 | Dual Energy X-ray Absorptiometry (DXA) training (IAEA)
(INMU, Nakhon Pathom, Thailand) |
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- 2011 Stable isotope techniques in nutrition (IAEA)
(Bangalore, India)
- 2006 Regional Training Course on Efficacy of Iron Intervention Programs (IAEA)
(Islamabad, Pakistan)
- 2000 First South East Asia and Pacific Regional Meeting on Practical Aspects of Carotenoid
Analysis (Bangkok, Thailand)

Publications

National

1. Natnaree Sangket, **Sueppong Gowachirapant**. Energy and nutrients intake of pregnant Thai women: A study at Faculty of Medicine, Ramathibodi Hospital. The Journal of Boromarajonani College of Nursing, Nakhonratchasima 2018; 24 (2): 18-33.
2. **Sueppong Gowachirapant**, Natnaree Sangket, Rungnapha Sarasak, Kanuengnit Emrat, Pattanee Winichagoon. Effect of iodine supplementation in mildly iodine-deficient Thai pregnant women on their child's somatic growth. J Nutr Assoc Thai 2018; 53: 15-27.
3. **Sueppong Gowachirapant**, Suwimol Ruencharoen, Benyachalee Techasaensiri, Purisa Wecharak, Pattanee Winichagoon. Iodine supplementation in mildly iodine-deficient Thai pregnant women had no beneficial effect on offspring development. J Nutr Assoc Thai 2018; 53: 28-41.
4. **Gowachirapant S**, Wasantwisut E, Sungpuag P, Kosulwat V, Tuntipopipat S, Pattanapanyasat K. Effect of carrot consumption on plasma carotenoids and lymphocyte subpopulations in healthy subjects. J Nutr Assoc Thai 2003; 38: 7-18.

International

1. Jiangtao Zhou, **Sueppong Gowachirapant**, Christophe Zeder, Alexander Wiczorek, Jeannette Nuessli Guth, Ines Kutzli, Sebastian Siol, Ferdinand von Meyenn, Michael B. Zimmermann, Raffaele Mezzenga. Oat protein nanofibril-iron hybrids offer a stable, high-absorption iron delivery platform for iron fortification. Nature Food 2025; 6: 1164-75.
2. Pattamaporn Joompa, **Sueppong Gowachirapant**, Sinee Chotiboriboon, Rungnapha Sarasak, Nattapach Thongkam, Prapa Kongpunya, Wantanee Kriengsinyos. Seasonal variation in dietary diversity and food variety scores among an indigenous Karen population in western Thailand: a cross-sectional study. Public Health Nutr 2025; 28(1): e168.
doi: 10.1017/S1368980025101225.
3. Pattamaporn Joompa, Pornpan Sukboon, Werner Schultink, Michael B Zimmermann, **Sueppong Gowachirapant**. A sentinel survey in remote Western Thailand indicates that school-aged children and reproductive-aged women of the Indigenous Pwo Karen community are iodine sufficient. Br J Nutr 2025; 133(3):1-6. doi: 10.1017/S0007114524003325.
4. Juntima Photi, Kunchit Judprasong, **Sueppong Gowachirapant**, Premmin Srisakda, Jutharat Supanuwat, Christophe Zeder. Collaborative Study for Iodine Monitoring in Mandatory Direct-Iodized Sauce in Thailand. Foods 2023 Sep 21; 12(18): 3513. doi:10.3390/foods12183513.
5. Jorge García Molinos, Tuyara Gavrilyeva, Pattamaporn Joompa, Daiju Narita, Sinee Chotiboriboon, Varvara Parilova, Solot Sirisai, Innokentiy Okhlopkov, Zhixin Zhang, Natalia Yakovleva, Prapa Kongpunya, **Sueppong Gowachirapant**, Viacheslav Gabyshev, Wantanee Kriengsinyos. Study protocol: International joint research project 'climate change resilience of Indigenous socioecological systems' (RISE). PLOS ONE 2022; doi.org/10.1371/journal.pone.0271792.
6. Hans Christian Winkler, Jeannine Baumgartner, Lizelle Zandberg, Siriporn Tuntipopipat, Phatchari Mankong, Cor Bester, Florentine Hilty, Jan Rijn Zeevaart, **Sueppong Gowachirapant**, Michael B. Zimmermann. Iron from nanostructured ferric phosphate: absorption and biodistribution in mice and



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- bioavailability in iron deficient anemic women. *Sci Rep* 2022; doi.10.1038/s41598-022-06701-x.
7. Nicole U Stoffel, Michael B Zimmermann, Ana Carla Cepeda-Lopez, Karla Cervantes-Gracia, Daniel Llanas-Cornejo, Christophe Zeder, Siriporn Tuntipipat, Sakita Mounmaithong, Narumon Densupsoontorn, Katharina Quack-Loetscher, **Sueppong Gowachirapant**, Isabelle Herter-Aeberli. Maternal iron kinetics and maternal-fetal iron transfer in normal weight and overweight pregnancy. *Am J Clin Nutr* 2022; 115(4): 1166-79.
 8. Nicole J Verhagen, **Sueppong Gowachirapant**, Pattanee Winichagoon, Maria Andersson, Alida Melse-Boonstra, Michael B Zimmermann. Iodine supplementation in mildly iodine-deficient pregnant women does not improve maternal thyroid function or child development: a secondary analysis of a randomized controlled trial. *Front Endocrinol* 2020; doi.org/10.3389/fendo.2020.572984.
 9. Weerachat Srichan, Tippawan Pongcharoen, Kunchit Judprasong, Pattanee Winichagoon, **Sueppong Gowachirapant**, Wanphen Wimondeerapattana. Association between adiposity indicators and cardiorespiratory fitness among rural northeastern Thai adolescents. *Mal J Nutr* 2020; 26(1): 107-16.
 10. **Sueppong Gowachirapant**, Nidhi Jaiswal, Alida Melse-Boonstra, Valeria Galetti, Sara Stinca, Ian Mackenzie, Susan Thomas, Tinku Thomas, Pattanee Winichagoon, Krishnamachari Srinivasan, Michael B. Zimmermann. Effect of iodine supplementation in pregnant women on child neurodevelopment: a randomized, double-blind, placebo-controlled trial. *Lancet Diabetes Endocrinol* 2017; 5: 853-63.
 11. Sara Stinca, Maria Andersson, Sandra Weibel, Isabelle Aeberli-Herter, Ralph Fingerhut, **Sueppong Gowachirapant**, Sonja Hess, Nidhi Jaikrishna, Tomislav Jukic, Zvonko Kusic, Ngoako Solomon Mabapa, Ashwini Kumar Nepal, Teofilo O.L. San Luis, Jia Qing Zhen, Michael Bruce Zimmermann. Dried blood spot thyroglobulin as a biomarker of iodine status in pregnant women. *J Clin Endocrinol Metab* 2017; 102: 23-32.
 12. T Pongcharoen, **S Gowachirapant**, P Wecharak, N Sangket and P Winichagoon. Pre-pregnancy body mass index and gestational weight gain in Thai pregnant women and associations with risk of low birth weight and macrosomia. *Asia Pac J Clin Nutr* 2016; 25(4): 810-17.
 13. Houghton LA, Gray AR, Harper MJ, Winichagoon P, Pongcharoen T, **Gowachirapant S** and Gibson RS. Vitamin D status among Thai school children and the association with 1,25-dihydroxyvitamin D and parathyroid hormone levels. *PLoS ONE* 2014; 9(8): e104825. doi:10.1371/journal.pone.0104825.
 14. **Gowachirapant S**, Melse-Boonstra A, Winichagoon P, Zimmermann MB. Overweight increases risk of first trimester hypothyroxinaemia in iodine-deficient pregnant women. *Matern Child Nutr* 2014; 10(1): 61-71.
 15. Alida Melse-Boonstra, **Sueppong Gowachirapant**, Nidhi Jaiswal, Pattanee Winichagoon, Krishnamachari Srinivasan, Michael B Zimmermann. Iodine supplementation in pregnancy and its effect on child cognition. *J Trace Elem Med Biol* 2012; 26: 134-36.
 16. **Gowachirapant S**, Winichagoon P, Wyss L, Tong B, Baumgartner J, Melse-Boonstra A, Zimmermann MB. Urinary iodine concentrations indicate iodine deficiency in pregnant Thai women but iodine sufficiency in their school-aged children. *J Nutr* 2009; 139(6): 1169-72.
 17. Zimmermann MB, Fucharoen S, Winichagoon P, Sirankapracha P, Zeder C, **Gowachirapant S**, Judprasong K, Tanno T, Miller JL, Hurrell RF. Iron metabolism in heterozygotes for hemoglobin E (HbE), alpha-thalassemia 1, or beta-thalassemia and in compound heterozygotes for HbE/beta-thalassemia. *Am J Clin Nutr* 2008; 88(4): 1026-31.
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18. RS Gibson, MS Manger, W Krittaphol, T Pongcharoen, **S Gowachirapant**, KB Bailey, P Winichagoon. Does zinc deficiency play a role in stunting among school children in NE Thailand?. *Br J Nutr* 2007; 97(1): 167-75.
19. RA Thurlow, P Winichagoon, T Pongcharoen, **S Gowachirapant**, A Boonpraderm, MS Manger, KB Bailey, E Wasantwisut, RS Gibson. Risk of zinc, iodine and other micronutrient deficiencies among school children in North East Thailand. *Eur J Clin Nutr* 2006; 60(5): 623-32.
20. P Winichagoon, J McKenzie, V Chavasit, T Pongcharoen, **S Gowachirapant**, A Boonpraderm, MS Manger, KB Bailey, E Wasantwisut, RS Gibson. A multimicronutrient-fortified seasoning powder enhances the hemoglobin, zinc, and iodine status of primary school children in North East Thailand: A randomized controlled trial of efficacy. *J Nutr* 2006; 136(6): 1617-23.
21. Zimmermann MB, Winichagoon P, **Gowachirapant S**, Hess SY, Harrington M, Chavasit V, Lynch S, Hurrell RF. A comparison of the efficacy of wheat-based snacks fortified with ferrous sulphate, electrolytic iron, or hydrogen-reduced elemental iron: a randomized, double blind, controlled trial in Thai women. *Am J Clin Nutr* 2005; 82(6): 1276-82.
22. Manger MS, Winichagoon P, Pongcharoen T, **Gowachirapant S**, Boonpraderm A, McKenzie J, Gibson RS. Multiple micronutrient may lead to improved cognitive function in NE Thai school children. *Asia Pac J Clin Nutr*. 2004; 13(Suppl): S46.
23. Pongcharoen T, Boonpraderm A, **Gowachirapant S**, Cook R, Gibson R, Egkantrong P, Winichagoon P. Dietary and biochemical iron status of stunted and non-stunted school children in NE Thailand. *J Trace Elem Exp Med* 2004; 17(4): 191.
24. Winichagoon P, Pongcharoen T, **Gowachirapant S**, Boonpraderm A. Do Multiple Trace Element Deficiencies Coexist Among School Children in NE Thailand?. *J Trace Elem Exp Med* 2004; 17(4): 198.
25. **Gowachirapant S**, Pongcharoen T, Boonpraderm A, Cook R, Gibson R, Winichagoon P. Zinc and iodine status of schools children from rural north east Thailand. *J Trace Elem Exp Med* 2004; 17(4): 216.

References

1. Assoc.Prof. Pattanee Winichagoon
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