



Curriculum Vitae

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



NAME DUNYAPORN TRACHOOTHAM
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Current positions: Associate Professor
Chair, Food and Nutrition Academic and Research Cluster, Institute of Nutrition
Head, Food Toxicology Unit, Institute of Nutrition
Secretary committee, Mahidol University Central Institutional Review Board (MU-CIRB)
Committee, Master of Science Program in Toxicology and Nutrition for Food Safety (Regular and Special programs)
Committee, PhD Program in Food and Nutrition for Health and Well-being (International program)
Chair, founding committee for Clinical Trial Research and Service Unit for Food Products (CRU)
Chair, Clinical trial subgroup, Hub of Talent: Functional Food Ingredients, The Council of University Presidents of Thailand

Education:

PhD Biomedical Sciences (Pharmacology)	University of Texas Health Sciences Center at Houston, Texas	USA
DDS (Dentistry) (First class honored)	Mahidol University	Thailand
Cert. (Nutrition Science for health professionals)	Friedman School of Nutrition, Tuft University, Boston	USA

Training:

Postdoctoral fellow (Cancer research)	MD Anderson Cancer Center, Houston, Texas	USA
Standard course in Clinical trials	Faculty of Medicine, Chulalongkorn University	Thailand
ICH-GCP	MU-Center of Ethics in Research Training CITI program	Thailand USA
Food Safety assessment of GM plant	BIOTEC, NSTDA	Thailand
Food Safety Assessor	Thailand Risk Assessment center	Thailand
Nutrigenomics: Genetic Testing for Personalized Nutrition	Dietitians of Canada	Canada

Research Interest and Expertise

1. Research and development of functional food for cancer prevention (innovation to reduce food-derived carcinogens, promote detoxification and reduce risk of cancer progression)
2. Research and development of food products for patients with compromised oral functions (chewing and swallowing difficulties/ dysphagia, dry mouth, taste disorders)
3. Research and development of food products for prevention of sarcopenia in the elderly and cachexia in cancer patients
4. Clinical safety, pharmacokinetic and efficacy trials of functional and medical food products (outcome: nutritional status, immune response, defecation, liver function, detoxification)
5. Dietary factors and cancer risk assessment
6. Innovation to reduce food hazards and risk of non-communicable diseases (NCDs)



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7. Taste disorders and nutrition
8. Precision/ personalized nutrition: Metabolomics, Nutrigenomics, and Microbiota

Professional experiences

1. Assessor

Thai Food and Drug Administration (FDA)

- Scientific integrity of health claim application
- Scientific integrity of dietary supplement application
- Scientific assessment of the project "Fluoridated milk for primary school children" Bureau of Nutrition, Department of Health, Ministry of Health

Thailand Risk Assessment Center (TRAC)

- Safety of novel food

BIOTEC, NSTDA

- Safety (toxicology part) of genetically modified (GM) plant food
- Safety (toxicology part) of cultured meat

2. Committee

- (previous) Program Director, Master of Science in Toxicology and Nutrition for Food Safety (Regular and Special programs)
- Secretary Committee and IRB administrator, Mahidol University Central Institutional Review Board (MU-CIRB)
- Committee, Special IRB - Mahidol University Central Institutional Review Board for COVID19-related projects
- Ethics committee of Mahavajiralongkorn Thanyaburi Cancer Center

Thai Food and Drug Administration (FDA)

- Committee, Drafting regulatory guidelines of food for elderly with chewing and swallowing problems
- Committee (representative of INMU), Food for a special purpose, and health claims
- Committee (representative of INMU), Committee on Strategic Drives in food and Nutrition for better quality of Life, National Food Board
- Experts in selected cases for evaluation of Food for a special purpose, and health claims

Bureau of Nutrition, Ministry of Public Health

- Author of section: vitamin and minerals with antioxidant properties, Thai Dietary Recommendation Intake (DRI) Guideline, 2020

National Bureau of Agricultural Commodity and Food Standards

- Drafting guidelines to assess the safety of genetically modified plant
- Drafting guidelines to assess the safety of foods derived from recombinant-DNA plants, animals

3. Reviewer and editorial board

- **Journal peer review:** Cancer Communication, Food Chemistry, Food & Function, Food Research International, Frontiers in Nutrition, International Journal of Molecular Science, Nutrition and Cancer, Biological Trace Element Research, Oncotarget, Supportive Care in Cancer, Journal of Functional Food, Journal of Texture Studies, Oxidative Medicine and Cellular Longevity, Molecules, Foods, Nutrients, Cancer, Cancer Prevention Research, Lipid,



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- Food Bioscience, European Journal of Pharmacology, LWT, Journal of Environmental Health, Metabolites, Methods and Protocol, NFS Journal, Nutrition
- **Editorial board:** Frontiers in Oral Health, Cancer Screening and Prevention, Thai Journal of Toxicology, Food Innovation and Advances
 - **Grant review:** RSA grant, Thailand Science Research, and Innovation; RAINS for Thailand Food Valley, Agricultural Research Development Agency (Public Organization), INMU research grant, Program Management Unit for Human Resources & Institutional Development, Research and Innovation (PMU-B)

4. Dentist (2011 – present)

Publications (International Level) (citation 8,856 times, h-index 19)

1. Boonyingsathit K, Sridonpai P, **Trachootham D**, Sungayuth N, Judprasong K. Toxic Elements Levels and Risk Assessment in Lung and Bhutan Oyster Mushrooms and Their Cultivation Matrices. *J Agr Food Res* 2025; 22: 102151. 10.1016/j.jafr.2025.102151.
2. Pormlikul T, On-Nom N, Suttisansanee U, Temviriyankul P, **Trachootham D**, Khemthong C, Muangpracha N, Thangsiri S, Praengam K, Chupeerach C. The Effect of Green Tea Beverage on Blood Cardiometabolic Risk Biomarkers in Dyslipidemia Subjects. *Food Sci Nutr*. 2025; 13(6):e70415. Published 2025 Jun 17. doi:10.1002/fsn3.70415
3. Leechanavanicpan P, Phucharoenrak P, Phansuea P, **Trachootham D**. Coconut Milk Consumption and Breast Cancer Risk in Thai Women: A Case-Control Study. *Nutr Cancer* 2025; 77(1): 51-61. doi: 10.1080/01635581.2024.2390202
4. Kitiya J, Chantaramungkorn T, Pantoe A, Chupeerach C, **Trachootham D**. Short-term Safety of Nutri-Jelly in Adults Undergoing Hemodialysis. *Food Science & Nutrition*. 2024; 12:10507–10516. <https://doi.org/10.1002/fsn3.4578>
5. Glorieux C, Liu S, **Trachootham D**, Huang P. Targeting ROS in cancer: rationale and strategies. *Nat Rev Drug Discov*. 2024; 23(8): 583–606. <https://doi.org/10.1038/s41573-024-00979-4>
6. Thamsorn S, Phucharoenrak P, Winuprasith T, **Trachootham D**. Grilled plant (Soy, Rice, Corn)-Based patties contain lower amounts of heterocyclic aromatic amines but not polycyclic aromatic hydrocarbons than grilled beef patties. *Food Control* 2024; 161; 110398. <https://doi.org/10.1016/j.foodcont.2024.110398>
7. Phucharoenrak P, **Trachootham D**. Bergaptol, a Major Furocoumarin in Citrus: Pharmacological Properties and Toxicity. *Molecules* 2024; 29: 713. <https://doi.org/10.3390/molecules29030713>
8. Panduang T, Phucharoenrak P, Karnpanit W and **Trachootham D**. Cooking Methods for



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- Preserving Isothiocyanates and Reducing Goitrin in Brassica Vegetables. *Foods*. 2023; 12: 3647. <https://doi.org/10.3390/foods12193647>
9. Khoonin W, Shantavasinkul PC, Santivarangkna C, Praengam K and **Trachootham D**. Eicosapentaenoic acid and branched-chain amino acids fortified complete nutrition drink improved muscle strength in older individuals with inadequate protein intake. *Front. Nutr.* 2023; 10:1164469. doi: 10.3389/fnut.2023.1164469
10. Lam-Ubol A, Sukhaboon J, Rasio W, Tupwongse P, Tangshewinsirikul T, **Trachootham D**. Nutri-PEITC Jelly Significantly Improves Progression-Free Survival and Quality of Life in Patients with Advanced Oral and Oropharyngeal Cancer: A Blinded Randomized Placebo-Controlled Trial. *Int J Mol Sci.* 2023; 24(9):7824. <https://doi.org/10.3390/ijms24097824>
11. Phucharoenrak P, Muangnoi C, **Trachootham D**. Metabolomic Analysis of Phytochemical Compounds from Ethanolic Extract of Lime (*Citrus aurantifolia*) Peel and Its Anti-Cancer Effects against Human Hepatocellular Carcinoma Cells. *Molecules* 2023, 28, 2965. <https://doi.org/10.3390/molecules28072965>
12. Rungraung N, Muangpracha N, Trachootham D. Twelve-Week Safety and Potential Lipid Control Efficacy of Coffee Cherry Pulp Juice Concentrate in Healthy Volunteers. *Nutrients* 2023, 15, 1602. <https://doi.org/10.3390/nu15071602>
13. Kitdumrongthum S, **Trachootham D**. An Individuality of Response to Cannabinoids: Challenges in Safety and Efficacy of Cannabis Products. *Molecules* 2023, 28, 2791. <https://doi.org/10.3390/molecules28062791>
14. Phikulkhao N, Tanaviyutpakdee P, Lam-ubol A, **Trachootham D**. Nutri-phenethyl isothiocyanate Jelly Promotes Detoxification of a Tobacco-specific Oral Carcinogen in Male Active Cigarette Smokers. *Cancer Screen Prev* 2023; 2(1):30-41. <https://doi.org/10.14218/CSP.2022.00019>.
15. Khoonin W, Shantavasinkul PC, Santivarangkna C, **Trachootham D**. Loss of Eicosapentaenoic Acid (EPA) after Retort Sterilization of the EPA-BCAA Fortified Complete Nutrition Drink. *Foods*. 2022; 11(14):2023. <https://doi.org/10.3390/foods11142023>
16. Sahasakul Y, Angkhasirisap W, Lam-ubol A, Aursalung A, Sano D, Takada K, **Trachootham D**. Partial Substitution of Glucose with Xylitol Prolongs Survival and Suppresses Cell Proliferation and Glycolysis of Mice Bearing Orthotopic Xenograft of Oral Cancer. *Nutrients* 2022, 14, 2023. <https://doi.org/10.3390/nu14102023>
17. Wongniyomkaset W, Rungraung N, Muangpracha N, Winuprasith T, **Trachootham D**. Complete nutrition drink with retrograded starch is low glycemic, and the individual glucose response to the low glycemic complete nutrition drink depends on fasting insulin levels and
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- HOMA-IR in a randomized cross-over control trial. *J Nutr Sci* 2022, 11, E25.
doi:10.1017/jns.2022.23
18. Phucharoenrak P, Muangnoi C, **Trachootham D**. A Green Extraction Method to achieve the Highest Yield of Limonin and Hesperidin from Lime Peel Powder (*Citrus aurantifolia*). *Molecules* 2022, 27, 820. <https://doi.org/10.3390/molecules27030820>
19. Kunkeaw T, Suttisansanee U, **Trachootham D**, Karinchai J, Chantong B, Potikanond S, Inthachat W, Pitchakarn P, Temviriyankul P. *Diplazium esculentum* (Retz.) Sw. reduces BACE-1 activities and amyloid peptides accumulation in Drosophila models of Alzheimer's disease. *Sci Rep*. 2021; 11(1): 23796. <https://doi.org/10.1038/s41598-021-03142-w>
20. Kaewsit N, Winuprasith T, **Trachootham D**. Detoxification of Heterocyclic Aromatic Amines from Grilled Meat by PEITC-rich Vegetable Sauce: A Randomized Crossover Controlled Trial. *Food & Function*. 2021, 12 (21), 10411-10422. doi: 10.1039/D1FO01733K
21. **Trachootham D**, Whanmek K, Praengam K, Temviriyankul P and Santivarangkna C. Intake of Lactobacillus rhamnosus GG (LGG) Fermented Milk before Drinking Alcohol Reduces Acetaldehyde Levels and Duration of Flushing in Drinkers with Wild-type and Heterozygous Mutant ALDH2: A Randomized, Blinded Crossover Controlled Trial. *Food & Function*. 2021;12(20):10147-10159 doi: 10.1039/D1FO01485D
22. **Trachootham D**, Thongyen S, Lam-Ubol A, Chotechuang N, Pongpirul W, Prasithsirikul W. Simultaneously Complete but Not Partial Taste and Smell Losses were Associated with SARS-CoV-2 Infection. *Int J Infect Dis*. 2021 106: 329–337. doi: 10.1016/j.ijid.2021.03.083.
23. Khuropakhonphong K, Whanmek K, Purttiponthanee S, Chathiran W, Srichamnong W, Santivarangkna C, **Trachootham D**. Bulgarian yogurt relieved symptoms and distress and increased fecal short-chain fatty acids in healthy constipated women: A randomized, blinded crossover controlled trial. *NFS J*. 2021; 22: 20-31. doi:10.1016/j.nfs.2020.12.005.
24. Lam-Ubol A, Matangkasombut O, **Trachootham D**, et al. Efficacy of gel-based artificial saliva on Candida colonization and saliva properties in xerostomic post-radiotherapy head and neck cancer patients: a randomized controlled trial. *Clin Oral Investig*. 2021; 25(4): 1815–1827. doi:10.1007/s00784-020-03484-1
25. Nuchit S, Lam-Ubol A, Paemuang W, Talungchit S, Chokchaitam O, Mungkung O, Pongcharoen T, **Trachootham D**. Alleviation of Dry Mouth by Saliva Substitutes Improved Swallowing Ability and Clinical Nutritional Status of Post-Radiotherapy Head and Neck Cancer Patients: A Randomized Controlled Trial Alleviation of dry mouth by saliva substitutes improved swallowing ability and clinical nutritional status of post-radiotherapy head and neck cancer patients: a randomized controlled trial. *Support Care Cancer*. 2020; 28(6):2817-2828.
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26. Tarapan S, Matangkasombut O, **Trachootham D**, Sattabanasuk V, Talungchit S, Paemuang W, Phonyiam T, Chokchaitam O, Mungkung OO, Lam-Ubol A. Oral Candida colonization in xerostomic postradiotherapy head and neck cancer patients. *Oral Dis*. 2019; 25 (7), 1798-1808. doi: 10.1111/odi.13151.
 27. Suttireung P, Winuprasith T, Srichamnong W, Paemuang W, Phonyiam T, **Trachootham D**. Riceberry Rice Puddings: Rice-based Low Glycemic Dysphagia Diets. *Asia Pacific J Clin Nutr*. 2019; 28(3):467-475, doi: 10.1633/apjcn.201906/PP.0003
 28. **Trachootham D**, Khoonin W. Disrupting Redox Stabilizer: A Novel Therapeutic Strategy for Colorectal Cancer. *Cancer Communications*, 2019; 39(1):9 <https://doi.org/10.1186/s40880-019-0355-y>
 29. Vittayakasemsont K, Klaithong C, Phukosib K, Chavasit V, Sinthusek T, **Trachootham D**. Association between Pre-treatment Dietary Preference and Weight Loss after Radiation Therapy in Head and Neck Cancer Patients: A Pilot Study. *Nutr Cancer* 2019; 71(2): 230-239. doi: 10.1080/01635581.2019.1578393.
 30. Treesattayakul B, Winuprasith T, Theeranuluk B, **Trachootham D**. Loss of Posterior Occluding Teeth and Its Association with Protein-Micronutrients Intake and Muscle Mass among Thai Elders: A Pilot Study. *J Frailty Aging*. 2019; 8(2):100-103. doi: 10.14283/jfa.2019.2.
 31. Tippairrote T, Temviriyankul P, Benjapong W, **Trachootham D**. Prevalence and Factors Associated with High Levels of Aluminum, Arsenic, Cadmium, Lead, and Mercury in Hair Samples of Well-Nourished Thai Children in Bangkok and Perimeters. *Biol Trace Elem Res*. 2019;188(2): 334–343
 32. Lam-Ubol A, Fitzgerald AL, Ritdej A, Phonyiam T, Zhang H, Myers JN, Huang P, **Trachootham D**. Sensory acceptable equivalent doses of β -phenylethyl isothiocyanate (PEITC) induce cell cycle arrest and retard the growth of p53 mutated oral cancer in vitro and in vivo. *Food Funct*. 2018; 9: 3640–3656 (*back-covered article*)
 33. Tippairrote T, **Trachootham D**. Zinc Status in Hair Samples and Common Neurodevelopmental Disorders. *J Neurol Neuromed*. 2018; 3(1): 8-12.
 34. **Trachootham D**, Sato-Kuriwada S, Lam-Ubol A, Promkam C, Chotechuang N, Sasano T, Shoji N. Differences in taste perception and spicy preference: a Thai - Japanese cross-cultural study. *Chem Senses*. 2018; 43(1): 65-74.
 35. **Trachootham D**, Chingsuwanrote P, Yoosadiang P, Mekkrangkrai D, Ratchawong T, Buraphacheep N, Kijanukul S, Saekhowh S, Pongpitchayadeji O, Vongvachvasinj K, Sittikornpaiboonk P, Tuntipopipat S. Partial Substitution of Glucose with Xylitol Suppressed the



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- Glycolysis and Selectively Inhibited the Proliferation of Oral Cancer Cells. *Nutr Cancer* 2017; 69 (6): 862–872
36. **Trachootham D**, Chupeeracha C, Tuntipopipat S, Pathomyok L, Boonnak K, Praengam K, Promkam C, Santivarangkna C. Drinking fermented milk containing *Lactobacillus paracasei* 431 (IMULUS™) improves immune response against H1N1 and cross-reactive H3N2 viruses after influenza vaccination: A pilot randomized triple-blinded placebo controlled trial. *J Functional Foods*. 2017; 33: 1-10
37. Tippairote T, Temviriyankul P, Benjapong W, **Trachootham D**. Hair Zinc and Severity of Symptoms Are Increased in Children with Attention Deficit and Hyperactivity Disorder: a Hair Multi-Element Profile Study. *Biol Trace Elem Res*. 2017; 179 (2): 185-194
38. Madiloggovit J, Chotechuang N, **Trachootham D**. Impact of self-tongue brushing on taste perception in Thai older adults: A pilot study. *Geriatr Nurs*. 2016; 37(2): 138-36
39. Dalodom S, Lam-ubol A, Jeanmaneechotechai S, MS, Takamfoo L, Intachai W, Duangchada K, Hongsachum B, Kanchanatiwat P, Vacharotayangul P, **Trachootham D**. Influence of oral moisturizing jelly as a saliva substitute for the relief of xerostomia in elderly patients with hypertension and diabetes mellitus. *Geriatr Nurs*. 2016; 37(2): 101-9.
40. **Trachootham D**, Songkaew W, Hongsachum B, Wattana C, Changkluengdee N, Karapoch J, Thirsduttironnapumi S, Meennuch E, Klaitong C, Sinthusek T, Lam-Ubol A. Nutri-jelly may improve quality of life and decrease tube feeding demand in head and neck cancer patients. *Support Care Cancer*. 2015; 23(5):1421-30.
41. **Trachootham D**, Chen G, Zhang W, Lu W, Zhang H, Liu J, Huang P. Loss of p53 in stromal fibroblasts promotes epithelial cell invasion through redox-mediated ICAM1 signal. *Free Radic Biol Med*. 2013 May; 58:1-13 doi: 10.1016/j.freeradbiomed.2013.01.011
42. Zhang W, **Trachootham D**, Liu J, Chen G, Pelicano H, Garcia-Prieto C, Lu W, Burger JA, Croce CM, Plunkett W, Keating MJ, Huang P. Stromal control of cystine metabolism promotes cancer cell survival in chronic lymphocytic leukaemia. *Nat Cell Biol*. 2012 Feb 19; 14(3):276-86
43. Hu Y, Lu W, Chen G, Wang P, Chen Z, Zhou Y, Ogasawara M, **Trachootham D**, Feng L, Pelicano H, Chiao PJ, Keating MJ, Garcia-Manero G, Huang P. K-ras (G12V) transformation leads to mitochondrial dysfunction and a metabolic switch from oxidative phosphorylation to glycolysis. *Cell Res*. 2012; 22(2):399-412 DOI: 10.1038/cr.2011.145
44. Chen G, Wang F, **Trachootham D**, Huang P. Preferential killing of cancer cells with mitochondrial dysfunction by natural compounds. *Mitochondrion*. 2010; 10(6):614-25 DOI: 10.1016/j.mito.2010.08.001
45. **Trachootham D**, Alexandre J, Huang P. Targeting cancer cells by ROS-mediated
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- mechanisms: a radical therapeutic approach? *Nat Rev Drug Discov.* 2009; 8(7): 579-91. DOI: 10.1038/nrd2803
46. **Trachootham D**, Lu W, Ogasawara MA, Nilsa RD, Huang P. Redox regulation of cell survival. *Antioxid Redox Signal.* 2008; 10(8):1343-74.
47. **Trachootham D**, Zhang H, Zhang W, Feng L, Du M, Zhou Y, Chen Z, Pelicano H, Plunkett W, Wierda WG, Keating MJ, Huang P. Effective elimination of fludarabine-resistant CLL cells by PEITC through a redox-mediated mechanism. *Blood.* 2008; 112(5):1912-22
48. Zhang H, **Trachootham D**, Lu W, Carew J, Giles FJ, Keating MJ, Arlinghaus RB, Huang P. Effective killing of Gleevec-resistant CML cells with T315I mutation by a natural compound PEITC through redox-mediated mechanism. *Leukemia.* 2008; 22(6):1191
49. Demizu Y, Sasaki R, **Trachootham D**, Pelicano H, Colacino JA, Liu J, Huang P. Alterations of cellular redox state during NNK-induced malignant transformation and resistance to radiation. *Antioxid Redox Signal.* 2008; 10(5):951-61.
50. **Trachootham D**, Zhou Y, Zhang H, Demizu Y, Chen Z, Pelicano H, Chiao PJ, Achanta G, Arlinghaus RB, Liu J, Huang P. Selective killing of oncogenically transformed cells through a ROS-mediated mechanism by beta-phenylethyl isothiocyanate. *Cancer Cell.* 2006; 10(3): 241-52. (front-covered article)

National level

1. Muangpracha N, Rungraung N, Prathumpai W, Trachootham D. A Dose-Escalation Study to Evaluate Safety of a Novel β -1,3/1,6-Glucan from *Ophiocordyceps dipterigena* BCC 2073 Supplementation in Healthy Volunteers. *Thai Journal of Toxicology* 2025; 40(1): 1–28. <https://li01.tcihaijo.org/index.php/ThaiJToxicol/article/view/265955>
2. Bunchasansiri K, Karnpanit W, Kitdumrongthum S, Trachootham D*. Development and Validation of a New Questionnaire for Estimating the Consumption Frequency of Food containing Nitrate, Nitrite, and Nitrosamines. *Thai J Toxicol* 2024(special issue): proceedings of the 7th National Conference in Toxicology (NCT14), 2024.
3. Rungraung N, Muangpracha N, **Trachootham D**. A Dose-Escalation Study for Identifying Safe Doses of Coffee Cherry Pulp Juice Concentrate in Healthy Subjects. *Thai J Toxicol.* 2022, 37(2), 57–78. Retrieved from <https://li01.tci-thaijo.org/index.php/ThaiJToxicol/article/view/256774>
4. Lam-ubol A, Wongcheunsoontorn C, **Trachootham D**. Clinical Safety of Nutri-PEITC Jelly: A Pre-Post Study in Healthy Volunteers. *Thai J Toxicol.* 2022, 37(1), 1-15. <https://li01.tci->



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5. Amornsil P, Winuprasith T, **Trachootham D**. Effect of Nutri-Jelly Matrix on Cytotoxicity of Phenethyl Isothiocyanate in Oral Cancer Cells. *Thai J Toxicol*. 2020; 35(1): 75-93
6. Amornsil P, Trachootham D. PEITC: Functional Compound for Primary and Tertiary Chemoprevention of Cancer. *Thai J Toxicol*. 2019; 34(2): 75-93
7. Vittayakasemsont K, Klaithong C, Phukosi K, Chavasit V, **Trachootham D**. Nutritional Status of Thai Patients with Head and Neck Cancer During and After Completion of Radiotherapy. *J Dep Med Serv*. 2018; 43 (5): 99-104
8. Tippairrote T, Temviriyankul P, Benjapong W, **Trachootham D**. A pilot case-control study of lead and other hazardous elements in hair samples and risk of attention deficit and hyperactivity disorders in Thai children. *Thai J Toxicology*(special issue): proceedings of the 7th National Conference in Toxicology (NCT7), 2016.
9. Sutthisawas N, **Trachootham D**, Wattanavijitkul T. Pharmacokinetic, safety and tolerability studies after single and multiple oral administration of Phenethyl isothiocyanate in Nutri Jelly. *Chula Med J*. 2015; 59:631

Proceedings

1. Phikulkao N, Tanaviyupakdee P, Trachootham D. Association between Alcohol Drinking and Detoxification Metabolism of Carcinogens derived from Tobacco Smoking. Proceedings of The 11th National Conference in Toxicology (NCT11) "Toxicology and Safety Concern towards Pandemic Era", Virtual conference, 27-28 October 2021.
2. Treesattayakul B, Winuprasith T, Teeranurak B, **Trachootham D**. Inadequate intake of Dietary Fiber, Vitamin B12, and Calcium in Thai Elders. Proceedings of the 1st International Conference on Innovations in Food Ingredients & Food Safety (IFIFS 2018) Bangkok, Thailand, 12-13 September 2018 Paper ID: 40
3. Paemuang W, Rojrunvasinkul N, Santivarangkna C, **Trachootham D**. Development and validation of EAT-ABLE, a novel tool for self-assessment of ability to eat. Proceedings of the 9th International Graduate Students Conference on Population and Public Health Sciences (IGSCPP), Chulalongkorn University, Thailand, 24 July 2018
4. Theabratana P, Lamubol A, Pongcharoen T, **Trachootham D**. The Association between Taste Preference and Relevant Dietary Consumption in Thai Adults. 0th World Congress on Clinical Nutrition (WCCN), December 14-16, 2016: Rama Gardens Hotel, Bangkok,



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THAILAND

Books

1. Tippairote T, Karnpanit W, Trachootham D. (2019) Sources of Arsenic Exposure in Well-Nourished Children. In: Fares A., Singh S. (eds) Arsenic Water Resources Contamination. Advances in Water Security. Springer, Cham. https://doi.org/10.1007/978-3-030-21258-2_4
2. Trachootham D. Chapter 7: Research and development of functional foods for specific type of cancer. In: Martirosyan DM, Zhou JR. Functional foods and cancer: Functional Foods in Integrative Oncology. Volume 5. First edition. Texas, USA: Functional Food Center; 2017. p. 135–156. ISBN-13: 978-1976255342
3. Trachootham D. Eat Right Fight Cancer. Amarin Pringting, BKK, 2017, ISBN: 978-616-18-2068- 8
4. Trachootham D. Anti-cancer Recipe. Amarin Pringting, BKK, 2017, ISBN: 978-616-18-2073-2
5. Trachootham D, Wan Zhang and Peng Huang. Chapter 7: oxidative stress and cancer drug resistance. In the book: Drug resistance in Cancer Cells, Springer, NY, 2009, ISBN:978-0-387- 89445-4
6. Trachootham D, Madilogkowitz J. Chapter 2: Physiologic and pathologic changes of oral aging, prevention and management of oral diseases in elderly people. In: Clinical Practice Guideline for Geriatric Dentistry, Neurological Prasat Institute, Ministry of Health, 2014

Patent / Petit patent

Drinking fermented milk with heat-killed probiotics, filed by Mahidol University, Thailand

Swallowing Practice Drink, filed by Mahidol University, Thailand

Oral Moisturizing Jelly, filed by Dental Innovation Foundation under royal patronage

Nutri-jelly, filed by Dental Innovation Foundation under royal patronage

Nano-PEITC, filed by MD Anderson Cancer Center, USA

Lime peel extract, filed by Mahidol University, Thailand

Trade secret

Vegetable-hidden sauce, licensed to Innobic Asia, Co, Ltd.

Fermented milk for promoting detoxification of carcinogens derived from alcohol drinking

Nutri-PEITC jelly (Dental Innovation Foundation under royal patronage)

Copy right

TASTE-26 Questionnaire

EAT-ABLE Questionnaire

Mobile application: EAT-ABLE



Curriculum Vitae

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FDA-certified products

- Nutri-jelly, a texture-modified diet for people with chewing and swallowing difficulties (distributed by Dental Innovation Foundation under royal patronage)
- Oral moisturizing jelly, a texture-modified diet for people with dry mouth (distributed by Dental Innovation Foundation under royal patronage)

Graduate Advisory Experiences

PhD level

Major advisor

Watacharapol Koonin, MS – graduated PhD (Nutrition), Mahidol University, 2022 & RRI grant awardee from NRCT, dissertation research published in *Foods* (top 10th percentile journal) and *Frontiers in Nutrition* (Q1 journal)

Co-advisor

Montree Toso, graduated PhD in Oral Science, Thammasat University, 2017

MS level

- Torsak Tippairote, MD (medicine) - graduated MS (Food and Nutritional Toxicology), Mahidol University, 2016 & NRCT grant awardee & MU Outstanding Thesis awardee, 2019, thesis research published in *Biological Trace Element Research* (Q1, Top 10th percentile journal)
- Pakaorn Tiabrat, BNS (nursing) - graduated MS (Nutrition and Dietetics), Mahidol University, 2017
- Kanoknun Vittayakasemsont, BS (Home economics: food and nutrition) - graduated MS (Nutrition), Mahidol University, 2018 & MU Outstanding Thesis awardee, 2020, thesis research published in *Nutrition and Cancer* (Q2 journal)
- Budtree Treesattayakul, BS (nutrition) - graduated MS (Nutrition and Dietetics), Mahidol University, 2018 & Best poster award IFIFS 2018, thesis research published in *Journal of Frailty and Aging* (Q2 journal)
- Wannaporn Paengam, BNS (Nursing) - graduated MS (Nutrition and Dietetics), Mahidol University, 2018 & SPENT grant awardee, 2017
- Prangtip Suttireung, BS (Medical Technology) - graduated MS (Nutrition and Dietetics), Mahidol University, 2019, thesis research published in *Asia Pacific Journal of Nutrition* (Q3 journal)
- Sumalee Nuchit, BS (Nutrition) - graduated MS (Nutrition and Dietetics), Mahidol University, 2019, A finalist of Outstanding thesis award 2021, thesis research published in *Supportive Care in Cancer* (Q1, Top 10th percentile journal)



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- Pathumrat Amornsil, BS (Food science for health) – graduated MS (Toxicology and Nutrition for Food Safety), Mahidol University, 2019 & Best Presenter Award “Talks about Tox” & Second prize quiz award at World Food Safety day event , FAO
- Rata Khuropakhonphong, BS (Psychology) - graduated MS (Nutrition and Dietetics), Mahidol University, 2020, published in NFS Journal (Q1 Journal)
- Sophida Suta, BS (Biotechnology) - graduated MS (Toxicology and Nutrition for Food Safety – Special program), 2020
- Nitipon Kaewsit, BS (Microbiology) - graduated MS (Toxicology and Nutrition for Food Safety – Special program), 2021, published in *Food & Function* (Q1 Journal)
- Nattapong Pikulkao, BS (Agricultural chemistry) – graduated MS (Toxicology and Nutrition for Food Safety), 2022, published in Cancer Screening and Prevention
- Warisara Wongniyomkaset, BS (Food and Nutrition) – graduated MS of MS (Nutrition and Dietetics), Mahidol University, published in *Journal of Nutritional Sciences* (Q2 Journal)
- Pakkapong Phucharoenrak, BS (Home economics: nutrition and dietetics) – graduated MS (Toxicology and Nutrition for Food Safety), Awardee of The 60th Year Supreme Reign of His Majesty King Bhumibol Adulyadej Scholarship, thesis research published in *Molecules* (Q1 Journal), Awardee of the Dean’s List award from Mahidol University, Awardee of the Outstanding thesis for promoting SDG 2024
- Sasina Thammasorn, BS (Agricultural Industry) – graduated MS (Toxicology and Nutrition for Food Safety) – regular program, Awardee of Prof. Visith Chavasit Scholarship, thesis research published in *Food Control* (top 10th percentile journal), Awardee of the Dean’s List award from Mahidol University
- Thanaporn Panduang, BS (Nutrition and dietetics) – graduated MS (Toxicology and Nutrition for Food Safety) – regular program, Awardee of INMUTOX award for highest GPA, thesis research published in *Foods* (top 10th percentile journal), Awardee of the Dean’s List award from Mahidol University
- Janjiraporn Kittiya, BS (Health Education) – thesis completed and defense passed for MS (Toxicology and Nutrition for Food Safety) – special program, Awardee of INMUTOX admission scholarship, thesis research published in *Food Science & Nutrition* (Q1 Journal)
- Pornsavan Leechanavanichpan, BS (Food Sciences) - thesis completed and defense passed for MS (Toxicology and Nutrition for Food Safety) – regular program, thesis



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research published in Nutrition and Cancer (Q2 journal)

- Kwanwanit Banchasensiri, DDS (Dentistry) – thesis completed and defense passed for MS (Toxicology and Nutrition for Food Safety)- special program, Awardee of INMUTOX award for highest GPA
- Panida Paorod, Pharm.D. (Pharmacy) – ongoing thesis MS (Toxicology and Nutrition for Food Safety)- special program

Co-advisor

- Panitnart Kanjanatiwat, BS (Food sciences and technology)
Graduated MS (Food sciences for better nutrition), Mahidol University, 2014
- Jandanee Karapoch, BNS (Nursing)
Graduated MS (Nutrition and dietetics), Mahidol University, 2015
- Narueporn Sutthisawas, Pharm.D
Graduated MS (Clinical Pharmacology), Chulalongkorn University, 2016
- Thanit Koonkaew, BS (Biomedical sciences)
Graduated MS (Food and Nutritional Toxicology), Mahidol University, 2018
- Virat Wonsaengnak, MD (medicine)
Graduated MS (Food and Nutritional Toxicology), Mahidol University, 2018
- Supanat Tarapan, DDS (Dentistry)
Graduated MS (Oral and Maxillofacial Sciences), Srinakarinwirot University, 2018
- Chanika Chimkerd, BS (Food Science)
Graduated MS (Food Sciences for better nutrition), Mahidol University, 2019
- Wassana Pookate, BS (Nutrition)
Graduated MS (Nutrition and Dietetics), Mahidol University, 2020
- Pathintip Sangsai, BS (Food Science)
Graduated MS (Toxicology and nutrition for food safety), Mahidol University, 2022
- Nantakan Amonsusawat, BS (Food Science)
Passed defense of MS (Nutrition and Dietetics), Mahidol University
- Khataleya Kaewkul, BS (Nutrition)
thesis completed and defense passed for MS (Nutrition) – special program, Mahidol University
- Konpong Boonyingsatit, BS (Chemistry)
graduated MS (Toxicology and Nutrition for Food Safety) – regular program, Mahidol



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University

- Warisa Chaichayanalertwong, BS (Medical technology)
thesis completed and defense passed for MS (Toxicology and Nutrition for Food Safety)
– special program, Mahidol University
- Siravajee Chanchaijak, BS (Nutrition and dietetics)
thesis completed and defense passed for MS (Toxicology and Nutrition for Food Safety)
– regular program, Mahidol University
- Pornnapat Satianket, BS (Food Science)
Ongoing thesis for for MS (Toxicology and Nutrition for Food Safety) – regular program,
Mahidol University

Research Experiences

1. Innovation (Research and Development: R&D)

- Project manager: functional foods and texture-modified medical foods for elderly and cancer patients with dysphagia
- Principal investigator: functional food to reduce carcinogens from alcohol drinking, smoking and meat processing
- Principal investigator: functional food to prevent sarcopenia and cachexia
- Principal investigator: plant extract with health benefits
- Advisor: plant-based products

2. Clinical studies

- Clinical safety trials of novel food
- Clinical efficacy clinical trials for health claims of functional food products (probiotics, phytochemicals, plant extract, omega-3) for general population and people at risk of non-communicable diseases
Function: promote defecation, improve immune response, improve blood lipid and sugar, improve liver function, and promote muscle health
- Clinical safety and efficacy trials of medical food for cancer patients (nutrition, quality of life, tumor response)
- Glycemic index identification by clinical trial
- Pharmacokinetic study of functional food and analysis of active compounds
- Measurement of taste thresholds using Filter Paper Disc method
- Observational studies: case-control and cohort studies
- Validation and Reliability tests of new assessment tools or new guidelines



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3. Analytical chemistry lab

- Chemical and metabolite analysis of biological specimens using HPLC, LC-MS/MS, GC-MS
- Phytochemical analysis in cruciferous vegetables (isothiocyanates) and citrus fruits (limonoids/flavonoids)
- Nutri-Metabolomic analysis (p180 targeted metabolome)

4. Risk assessment and observational study

- Dietary risk factors and disease: a case-control study for MSG, coconut milk, nitrate, nitrite nitrosamine, and cancer risk; heavy metals and minerals content in hair and risk of ADHD
- Exposure assessment and risk assessment of phytochemicals in dietary supplements and herbal products

5. *In vivo* studies

- Orthotopic oral cancer xenograft model in mice
- Immunohistochemistry
- Tissue analysis for metabolic activity
- Efficacy study of anti-cancer agents in animal xenograft model of cancer
- Animal toxicity tests of food product according to OECD guideline

6. *In vitro* studies

- Experiments using primary lymphocytes from leukemia patients and healthy volunteers
- Three-dimensional organotypic culture
- Cellular toxicity tests
- Molecular and biochemical techniques (flow cytometer, immunofluorescence, western blotting, RT-PCR, 2-D electrophoresis)
- Measurement of oxidative stress in cells, oxidative modification of protein, lipid, DNA
- Measurement of activities in glutathione antioxidant system
- Metabolism study (ATP generation and glycolysis)

Honor and Awards

2024 Distinguished University Faculty (10+years), Institute of Nutrition, Mahidol University

2024 Major advisor of MU Outstanding Thesis Promoting Sustainable Development Goal (SDG),
Mahidol University

2022 Distinguished University Faculty (<10 years), Institute of Nutrition, Mahidol University

2021 World top 2% scientist, as reported by Stanford University

2020 Distinguished Teacher Award, Mahidol University



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- 2020 Distinguished University Faculty (<10 years), Institute of Nutrition, Mahidol University
- 2020 Distinguished Teacher Award, Institute of Nutrition, Mahidol University
- 2020 Major advisor of MU Outstanding Thesis Award, Mahidol University
- 2019 Major advisor of MU Outstanding Thesis Award, Mahidol University
- 2019 Malaspina International Scholar Travel (MIST) Award, ILSI Research Foundation, USA
- 2018 Distinguished University Faculty (<10 years), Institute of Nutrition, Mahidol University
- 2017 Distinguished University Faculty (<10 years), Institute of Nutrition, Mahidol University
- 2016 Ajinomoto Award for Outstanding Nutrition Research, Thailand Congress of Nutrition
- 2015 First prize, Poster presentation, Annual conference of Society for Parenteral and Enteral Nutrition of Thailand (SPENT)
- 2011 Present to His Majesty the King Rama IX "Nutri-jelly- a novel food product for chewing and swallowing problem
- 2010 Best Dissertation Award from National Research Council of Thailand
- 2009 Trainee of the quarter award, MD Anderson cancer center, USA
- 2009 Second prize, Research presentation, IADR/APF, Wuhan, China
- 2008 President Research Scholar award, University of Texas, USA
- 2007 Lummis Family Fellowship, University of Texas, USA
- 2007 Best Poster in Toxicology and Pharmacology, National Student Research Forum, USA
- 2002 The recipient of Anandamahidol Scholarship (Dentistry)