



Curriculum Vitae

Institute of Nutrition, Mahidol University (INMU)

999 Phutthamonthon 4 Rd., Salaya, Phutthamonthon

Name Sarunya Kitdumrongthum, Ph.D.

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Current position Lecturer

Education

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| 2019 | Doctor of Philosophy (Toxicology), Multi-Disciplinary Unit, Faculty of Science, Mahidol University, Thailand |
| 2012 | Bachelor of Science (Biochemistry and Biochemical Technology, Department of Chemistry, Faculty of Science, Chiangmai University, Thailand |

Research Interest and Expertise

1. Extracellular vesicles
2. Molecular biomarkers of food contaminant exposure
3. Biological activity and anticancer activity of natural compounds
4. Small RNAs (microRNAs and Long Non-coding RNAs) in Non-communicable diseases (NCDs)
5. Gene polymorphisms

Research Experiences

1. Expression of small RNAs (miRNAs) in extracellular vesicles derived from cancer cell lines and biological samples
2. Biological functions and signaling pathways of miRNAs related to in malignant phenotypes of cancer cell lines
3. Inhibitory effect of natural compounds and its derivatives on human topoisomerase II α activity
4. Anti-cancer activity and anti-cancer mechanisms of natural compounds and its derivatives in cancer cell lines



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Training

2024	หลักสูตรมาตรฐานความปลอดภัยห้องปฏิบัติการ (Standard Laboratory Safety) จากสำนักงานการวิจัยแห่งชาติ (National Research Council of Thailand)
2024	หลักสูตร Human Subjects Research (Social & Behavioral & Humanities Researchers) จาก Collaborative Institutional Training Initiative (CITI Program)
2023	หลักสูตร Human Subjects Research (Course Learner Group: Biomedical Researchers) จาก Collaborative Institutional Training Initiative (CITI Program)
2023	หลักสูตร Good Clinical Practice (Course Learner Group: Researcher Biological) จาก Collaborative Institutional Training Initiative (CITI Program)
2023	โครงการพัฒนาศักยภาพคณะกรรมการคณะกรรมการจริยธรรมการวิจัยในคน ในหัวข้อ Ethical Issues in Research Involving Biobanking จากมูลนิธิส่งเสริมการศึกษาริวิจัยในคนในประเทศไทย
2022	หลักสูตรจริยธรรมการวิจัยในคนสำหรับการวิจัยด้านชีวการแพทย์ จากศูนย์ส่งเสริมการวิจัย มหาวิทยาลัยมหิดล
2022	หลักการคุ้มครองข้อมูลส่วนบุคคลสำหรับนักศึกษาและบุคลากรมหาวิทยาลัยมหิดล จากมหาวิทยาลัยมหิดล
2022	โครงการอบรมเทคนิคการกรอกแบบฟอร์มเพื่อขอรับรองจริยธรรมการวิจัยในคน จากสำนักงานจริยธรรมการวิจัย ฝ่ายวิจัย มหาวิทยาลัยรังสิต
2021	หลักสูตรจริยธรรมการวิจัย (Research Integrity) (e-Learning) จากสำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ (สวทช.)
2021	หลักสูตร GPC online training (Computer based) “แนวทางการปฏิบัติการวิจัยทางคลินิกที่ดี (CH-GCP:E6(R2))” จากคณะกรรมการจริยธรรมการทำวิจัยในคน มธ.ชุดที่ 1 และศูนย์วิจัยทางคลินิกคณะแพทยศาสตร์
2021	Research Ethics & GCP Course (Human Research Ethics in a New and Challenging Era) from National Research Council of Thailand (NRCT) and Forum for Ethical Review Committees in Thailand (FERCIT)
2020	Online Research Ethics Training Course หลักสูตรหลักจริยธรรมการวิจัยในมนุษย์สำหรับคณะกรรมการจริยธรรม จาก National Research Council of Thailand (NRCT) and Forum for Ethical Review Committees in Thailand (FERCIT)

Honors and Awards

2019	First place, Oral presentation: Title “Dysregulated microRNA expression profiles in cholangiocarcinoma cell-derived exosomes”
2012	First class Honors, Gold medal of B.Sc., Chiangmai University



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2014-2020 Training grant: The Royal Golden Jubilee Ph.D. Program, The Thailand Research Fund

2012-2013 Training grant: Institutional Strengthening Program, Mahidol University

Publications

International

1. Thiyajai, P., P. Trangcasanchai, P. Thapprathum, T. Soonkum, P. Sridonpai, S. Kitdumrongthum, K. Judprasong, W. Kriengsinyos, and A. Prachansuwan. "Faecal Short-Chain Fatty Acids and Nutritional Factors in Thai Adults with Hypercholesterolaemia Compared to Normocholesterolemic Subjects." [In eng]. *Int J Food Sci Nutr* (Jul 2 2025): 1-13. <https://doi.org/10.1080/09637486.2025.2525901>.
2. Worakitchanon, W., Panvongsa, W., Siripoon, T., Kitdumrongthum, S., Wongpan, A., Arsa, L., Trachu, N., Jinawath, N., Chairoungdua, A., & Ngamphaiboon, N. (2023). Six-MicroRNA Prognostic Signature in Patients With Locally Advanced Head and Neck Squamous Cell Carcinoma. *JCO Precision Oncology*(7), e2300003. <https://doi.org/10.1200/po.23.00003>
3. Kitdumrongthum, S., & Trachootham, D. (2023). An Individuality of Response to Cannabinoids: Challenges in Safety and Efficacy of Cannabis Products. *Molecules*, 28(6), 2791. <https://www.mdpi.com/1420-3049/28/6/2791>
4. Hasan, H., Sohal, I. S., Soto-Vargas, Z., Byappanahalli, A. M., Humphrey, S. E., Kubo, H., Kitdumrongthum, S., Copeland, S., Tian, F., Chairoungdua, A., & Kasinski, A. L. (2022, Jan 19). Extracellular vesicles released by non-small cell lung cancer cells drive invasion and permeability in non-tumorigenic lung epithelial cells. *Sci Rep*, 12(1), 972. <https://doi.org/10.1038/s41598-022-04940-6>
5. Chatsirisupachai, K., Kitdumrongthum, S., Panvongsa, W., Janpipatkul, K., Worakitchanon, W., Lertjintanakit, S., Wongtrakoongate, P., & Chairoungdua, A. (2020, Nov). Expression and roles of system L amino acid transporters in human embryonal carcinoma cells. *Andrology*, 8(6), 1844-1858. <https://doi.org/10.1111/andr.12880>
6. Kitdumrongthum, S., Reabroi, S., Suksen, K., Tuchinda, P., Munyoo, B., Mahalapbutr, P., Rungrotmongkol, T., Ounjai, P., & Chairoungdua, A. (2020, Jul). Inhibition of topoisomerase II α and induction of DNA damage in cholangiocarcinoma cells by altholactone and its halogenated benzoate derivatives. *Biomed Pharmacother*, 127, 110149. <https://doi.org/10.1016/j.biopha.2020.110149>
7. Kitdumrongthum, S., Methetrairut, C., Charoensawan, V., Ounjai, P., Janpipatkul, K., Panvongsa, W., Weerachayaphorn, J., Piyachaturawat, P., & Chairoungdua, A. (2018, Oct 1). Dysregulated microRNA expression profiles in cholangiocarcinoma cell-derived exosomes. *Life Sci*, 210, 65-75. <https://doi.org/10.1016/j.lfs.2018.08.058>
8. Dutta, S., Reamtong, O., Panvongsa, W., Kitdumrongthum, S., Janpipatkul, K., Sangvanich, P., Piyachaturawat, P., & Chairoungdua, A. (2015, Sep). Proteomics profiling of cholangiocarcinoma exosomes: A potential role of oncogenic protein



transferring in cancer progression. *Biochim Biophys Acta*, 1852(9), 1989-1999.
<https://doi.org/10.1016/j.bbadis.2015.06.024>

National

1. Trangcasanchai, P., Thiyajai, P., Sridonpai, P., Tongdonpo, K., Kitdumrongthum, S., Kriengsinyos, W., & Prachansuwan, A. (2024). Development and Validation of a Semi-Quantitative Food Frequency Questionnaire for Assessing Prebiotic and Probiotic Intake among Thai Adults. *Journal of Nutrition Association of Thailand (Online)*, 59(2), 67–80. retrieved from <https://he01.tci-thaijo.org/index.php/JNAT/article/view/273345>
2. Khunnasarn, W., Promkum, C., Phumsuay, R., Kitdumrongthum, S., Butryee, C., Muangnoi, C., & Sukprasansap, M. (2024). Antioxidant Capability and Inhibitory Effect of Leaf Extracts of *Albizia lebbek* (L.) Benth. Against Formation of Mutagen and Mutagenesis. *Journal of Nutrition Association of Thailand (Online)*, 59(1), 86–106.
Retrieved from <https://he01.tci-thaijo.org/index.php/JNAT/article/view/271248>

Presentations

1. November 11-12, 2024 Poster presentation: Title “Evaluation of Mutagenic Activity of Different Leaf Extracts from *Albizia lebbek* (L.) Benth.” Then 14th National Conference in Toxicology (NCT14), Toxicology for Sustainable Development, Bangkok, Thailand (co-author)
2. December 19-21, 2019 Poster presentation: Title “Induction of cholangiocarcinoma cell death through topoisomerase II α inhibition by altholactone and halogenated benzoate derivatives” 47th Physiological society of Thailand annual meeting, Research Innovation and Precision Medicine Challenging Role for Physiologists, Bangkok, Thailand (first author)
3. December 19-21, 2018 Oral presentation: Title “Dysregulated microRNA expression profiles in cholangiocarcinoma cell derived exosomes” 46th Physiological society of Thailand annual meeting, Research and educational innovation in medical sciences, Khao Yai, Thailand (first author)
4. June 7-9, 2018 Poster presentation: Title “Characterization and microRNA profiling of cholangiocarcinoma cells derived exosomes” RGJ-Ph.D. Congress 19, Innovation Challenges toward Thailand 4.0 Research Inspiration, Connectivity and Transformation, Pattaya, Thailand (first author)
5. April 14-18, 2017 Poster presentation: Title “Exosomal RNA mediates transformation of non-tumorigenic human bronchial lung epithelia cells” AACR Annual Meeting 2018, Driving Innovative Cancer Science to Patient Care, American Association for Cancer Research, Chicago, Illinois, USA (first author)