



Curriculum Vitae

Institute of Nutrition, Mahidol University (INMU)

999 Phutthamonthon 4 Rd., Salaya, Phutthamonthon

Name: Paiwan Buachan, Ph.D.
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Current position: Lecturer

Education:

- 2021 Doctor of Philosophy in Biomedical Science, Faculty of Medicine, Srinakharinwirot University, Thailand.
- 2012 Master of Science in Molecular Biology, Faculty of Medicine, Srinakharinwirot University, Thailand.
- 2009 Bachelor of science in Biology, Faculty of Science, Srinakharinwirot University, Thailand.

Research Interest and Expertise

1. Cellular and cancer research
2. Biological properties of compounds
3. Anticancer activities of compounds

Research Experiences

1. Biological properties of β -glucans on human immune cells, human colorectal cancer cells, and probiotic *Lactobacillus paracasei* MSMC 39-1 activities and pathogenic bacteria inhibition.
2. Biological activities of policosanol against diabetes via improved insulin sensitivity in skeletal muscle cells.
3. Cartilage reconstruction and cell-based therapy. Cell culture: isolate stem cells from bone marrow and chondrocyte from cartilage.
4. Inhibitory effects of terrein on lung cancer cell metastasis and angiogenesis.
5. Activities of compound on human endothelial cells: enhancing cell migration and delaying cellular aging.

Training

- 2023 IP management for innovative business. Career for the Future Academy, Thailand.
- 2021 Laboratory biosafety level. NANOTEC, NSTDA, Thailand.



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Scholarship/Grants

- 2019-2020 Canada-ASEAN Scholarships and Educational Exchanges for Development (2019-2020) awarded by Canada.
- 2019 Capacity building program for new researcher 2019 awarded by National Research Council of Thailand: NRCT, Thailand.
- 2017, 2019 Ph.D. thesis grant: Medical graduate research funding (MED-GRAD-300) awarded by Faculty of Medicine, Srinakharinwirot University, Thailand.
- 2009-2011 M.Sc. thesis grant: Medical graduate research funding (MED-GRAD-150) awarded by Faculty of Medicine, Srinakharinwirot University, Thailand.

Publications

National

1. **Buachan P**, Namsa-Aid M, Tanechpongamb W. Terrein Inhibits Aggressive Phenotype of A549 Human Lung Cancer Cell through Suppression of HIF-1 α . *Walailak J Sci Technol*. 2021; 18(11): 10605.

International

1. Nanta P, **Buachan P**, Pinket W, Srinuanchai W, Pongwan P, Sramala I, Jarussophon S, Prathumpai W, Taweechoitipatr M, Ruktanonchai UR, Kasemwong K. Fragmentation of β -glucan by microfluidization process and its TNF- α immunostimulating activity. *Heliyon*. 2024; 10(8): e29444.
2. Wongsawatkul O, **Buachan P**, Jaisin Y, Busarakumtragul P, Chainakul S, Watanapokasin R, Prachayasittikul V, Prachayasittikul S, Ruchirawat S, Prachayasittikul V. Effects of barakol from *Cassia siamea* on neuroblastoma SH-SY5Y cell line: A potential combined therapy with doxorubicin. *Heliyon*. 2024; 10(3): e24694.
3. **Buachan P**, Namsa-Aid M, Sung HK, Peng C, Sweeney G, Tanechpongamb W. Inhibitory effects of terrein on lung cancer cell metastasis and angiogenesis. *Oncol Rep*. 2021; 45 (6): 94.
4. **Buachan P**, Chularojmontri L, Wattanapitayakul S. Selected Activities of *Citrus Maxima* Merr. Fruits on Human Endothelial Cells: Enhancing Cell Migration and Delaying Cellular Aging. *Nutrients*. 2014; 6(4): 1618-34.



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Presentations

1. **Buachan P**, Namsa-Aid M, Jongrungruangchok S, Jarintanan F, Tanechpongamb W. The Effects of Terrein, a Secondary Metabolite from *Aspergillus terreus*, as Anticancer and Antimetastatic Agent on Lung Cancer Cells. 28th Nursing Care Summit and Cancer Science Congress 2019. April 29-30, 2019. Seoul, South Korea. Poster presentation.
2. **Buachan P**, Wattanapitayakul S. Pummelo fruit juice prevented oxidative stress and delayed endothelial aging. The 22nd National Graduate Research Conference. Kasertsart University, Bangkok, Thailand. 2011; 6-7 October. Oral presentations.
3. **Buachan P**, Wattanapitayakul S. Pummelo fruit juice prevented oxidative stress and delayed endothelial aging. Annual conference 2011, Faculty of Medicine, Srinakharinwirot University, Thailand. Oral presentations.

IP application

1. Phawinee Nanta, **Paiwan Buachan**, Wichchunee Pinket, Wanwisa Srinuanchai, Kittiwut Kasemwong. กรรมวิธีลดน้ำหนักโมเลกุลของ (1-3), (1-6) เบต้า-ดี-กลูแคน ((1-3), (1-6) β -D-glucan) โดยใช้เทคนิคไมโครฟลูอิดิเคชัน (microfluidization). Thai petite-patent, Application filing no. 123643, filing date: December, 2021.