



CHATCHANOK UDOMTANAKUNCHAI

DEPARTMENT OF RADIOLOGIC TECHNOLOGY



☎ 053-949307

✉ Chatchanok.u@cmu.ac.th

Education

- Ph.D. in Bioscience (Biophysiques), Burapha University, Thailand
- Diplôme de Docteur, Biophysique Moleculaire, Université Paris VI, France
- DEA, Biophysique Moleculaire, Université Paris VI, France
- B.Sc. in Public Health (Public Health Administration)
- B.Sc. in Radiologic Technology, Chiang Mai University, Thailand
- Postdoctoral Fellowship, Department of Pathology, Stony Brook University, NY, USA

Research areas of interest

- Radiation Physics & Techniques
- Radiation Biology & Cell Biology
- Free Radicals & Antioxidants
- Multidrug Resistance & Drug Transport



Research theme



Interdisciplinary Radiation Science and Cellular Response Research for Advanced Biomedical Applications and Radiological Protection

Publication (2021-2025)

e-Books

[Link](#)



- กฎหมายที่เกี่ยวข้องกับวิชาชีพสาขารังสีเทคนิค (2024)
- เยื่อหุ้มเซลล์กับการประยุกต์ใช้ทางรังสีการแพทย์ (2024)
- สารอนุมูลอิสระในทางชีววิทยาและการแพทย์ (2024)

Journal publications

- 2025 Lophaisankit, P., et al., Feline Erythrocytic Osmotic Fragility in Normal and Anemic Cats-A Preliminary Study. *Vet Sci*, 2025. 12(3).
- 2023 Dechsupa, N., et al., Pentagalloyl Glucose-Targeted Inhibition of P-Glycoprotein and Re-Sensitization of Multidrug-Resistant Leukemic Cells (K562/ADR) to Doxorubicin: In Silico and Functional Studies. *Pharmaceuticals (Basel)*, 2023. 16(9).
- 2022 Myint, O., et al., Modulation of p-glycoprotein-mediated efflux pirarubicin in living multidrug-resistant K562/Dox cell lines by 4-hydroxybenzoic acid and 4-hydroxy-3-methoxybenzoic acid via impairment of the cellular energetic state. *Toxicol Rep*, 2022. 9: p. 1443-1451.
- Aye, K.T., et al., Effect of pre-low-dose irradiation on anticancer activities of gallic acid in leukemic K562 and K562/Dox cells: cell viability and cellular energetic state studies. *Med Oncol*, 2022. 39(12): p. 229.
- 2021 Supawat, B., et al., Different responses of normal cells (red blood cells) and cancer cells (K562 and K562/Dox cells) to low-dose (137)Cs gamma-rays. *Mol Clin Oncol*, 2021. 14(4): p. 74.
- Myint, O., et al., Protein binding of 4-hydroxybenzoic acid and 4-hydroxy-3-methoxybenzoic acid to human serum albumin and their anti-proliferation on doxorubicin-sensitive and doxorubicin-resistant leukemia cells. *Toxicol Rep*, 2021. 8: p. 1381-1388.
- Htun, K.T., et al., Advanced Molecular Imaging (MRI/MRS/(1)H NMR) for Metabolic Information in Young Adults with Health Risk Obesity. *Life (Basel)*, 2021. 11(10).
- Htun, K.T., et al., Identification of Metabolic Phenotypes in Young Adults with Obesity by (1)H NMR Metabolomics of Blood Serum. *Life (Basel)*, 2021. 11(6).
- Aye, K.T., et al., Gallic acid enhances pirarubicin-induced anticancer in living K562 and K562/Dox leukemia cancer cells through cellular energetic state impairment and P-glycoprotein inhibition. *Oncol Rep*, 2021. 46(4).