

# Assist.Prof.Thititip Tippayamontri, Ph.D.

## Current appointments:

- 2020-present Associate Dean for International Affairs and Corporate Communications of Faculty of Allied Health Sciences, Chulalongkorn University
- 2019-present Chulalongkorn University Faculty Senate
- 2018-present Administrative committee of Faculty of Allied Health Sciences, Chulalongkorn University
- 2017-present Research and innovation committee of Faculty of Allied Health Sciences, Chulalongkorn University
- 2016-present International and student affairs coordinating committee of Faculty of Allied Health Sciences, Chulalongkorn University
- 2016-present Instructor, Department of Radiological Technology and Medical Physics, Faculty of Allied Health Sciences, Chulalongkorn University

## Education and Training:

- Postdoctoral fellow (Radiation Sciences and Biomedical Imaging), University of Sherbrooke, Canada
- Clinical Research Associate (Certified Clinical Research Professional), Clinical Research Training Center, CRA School of Montreal, Quebec, Canada
- Ph.D. in Radiation Sciences and Biomedical Imaging, University of Sherbrooke, Canada
- M.Sc. in Radiobiology, University of Sherbrooke, Canada
- B.Sc. in Science (Biology) with “Second Class Honors degree” in Applied Radiation and Isotopes, Kasetsart university, Thailand



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# Assist.Prof.Thititip Tippayamontri, Ph.D.

## Research Interests:

**Research focused** on “The Advanced in Radiation Biology: Effects on Radiotherapy and Nuclear Medicine”

- i) The integration of nanoscale-radiosensitizer and hyperthermia into modern radiation oncology
- ii) The development of radiotheranostics in cancer diagnosis and management
- iii) The establishment of biodosimetry platform that could be used for personalized medicine

**Research areas** are Radiation Sciences, Cancer Biology, Nanomedicine, Molecular Imaging, and Biodosimetry.

## Current research projects:

### Principal investigator

- The influence of cisplatin- and radiation-related tumor-derived-exosome: Applications for cancer diagnostic, prognosis and therapeutic.
- Radioprotective potential of Thai herbs against the effects of ionizing radiation
- Biological effects of combined treatment of radiation, gold nanoparticles and heat on human epithelial lung carcinoma A549 cell line
- Qualitative and quantitative evaluation of human blood cells after exposure to ionizing radiation
- Effects of low-dose radiation on mitochondrial DNA damage of human epithelial lung carcinoma A549 cell line
- Study the physical mechanisms and the biological interactions of combined treatment of gold nanoparticle, radiation and hyperthermia for FaDU head and neck cancer cell and MCF7 breast cancer cell lines
- Evaluation of DNA damage in blood leucocyte after internal ex-vivo irradiation with the positron-emitter Ga-68 radionuclide

### Co-investigator

- Inorganic polyphosphate enhances radiosensitivity in a human cancer cell lines
- Study on characteristic of Fricke xylenol gel dosimeter: Application for dose evaluation in radiotherapy

## International Collaborations



FUJITA HEALTH UNIVERSITY

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## Grant received:

- Thailand Institute of Nuclear Technology (2022)
- Fundamental Fund, Thailand Science Research and Innovation (2021-2022)
- The Internal Financial Grant, Faculty of Allied Health Sciences, Chulalongkorn University (2017-2018)
- Ratchadaphiseksomphot Endowment Fund, Chulalongkorn University (2016-2017)
- The Canadian Institutes of Health Research (2014-2015)
- The Internal Financial Assistance Program, Clinical Research Center, University of Sherbrooke (2013-2014)

## Selected Publications:

1. T. Tippayamontri, E. Betancourt-Santander, B. Guérin, R. Lecomte, B. Paquette and L. Sanche. Estimation of the internal dose imparted by F-Fluorodeoxyglucose to tissues by using Fricke dosimetry in a phantom and positron emission tomography. *Frontiers in Nuclear Medicine*, 14 February 2022 | <https://doi.org/10.3389/fnume.2022.815141>
2. G. Charest, T. Tippayamontri, M. Shi, M. Wehbe, M. Anantha, M. Belly and L. Sanche. “Liposomal gold nanoparticles and chemotherapy with ionizing radiation compared to equivalent non liposomal compounds for tumor treatment”. *International Journal of Molecular Sciences*, 2020, 21(14):4848.
3. T. Tippayamontri, B. Guérin, R. Ouellet, O. Sarrhini, J. Rousseau, R. Lecomte, B. Paquette and L. Sanche. “Intra-tumoral  $^{18}\text{F}$ -FLT infusion in metabolic targeted radiotherapy”. *European Journal of Nuclear Medicine and Molecular Imaging Research*, 2019, 9:33.
4. P. Choosin, T. Tippayamontri, S. Ninlaphruk, V. Pungkun. Study on characteristic of Fricke xylenol gel dosimeter: Application for dose evaluation in radiotherapy. *IOP Journal of Physics: Conference Series*, 2019,1285.
5. T. Tippayamontri, D. Hunting, L. Sanche and B. Paquette. “Radiosensitizing effect of PVA coated gold nanoparticles: Study in the Fricke dosimeter and plasmid DNA damage”. *Current Nanomedicine*, 2018, 8, 1-14.
6. M. Shi, T. Tippayamontri, L. Sanche and B. Paquette. “Intratumoral injection of gold nanoparticles to increase the tumoral uptake and radioenhancement effect in colorectal cancer”. *Nanomedicine: Nanotechnology, Biology and Medicine*, 2016, 11: 5323–5333.
7. T. Tippayamontri, R. Kotb, L. Sanche and B. Paquette. “New therapeutic possibilities of combined treatment of radiotherapy with oxaliplatin and its liposomal formulations (Lipoxal<sup>TM</sup>) in colorectal cancer using nude mouse xenograft” *Anticancer Research*, 2014, 34(10):5303-12.

## Professional memberships

