Tarapong Srisongkram

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Educations		Year
Doctor of Philosophy (Research and Development in Pharmaceuticals), (RGJ-Ph.D. Scholarship) DISSERTATION: The study of transportation pathway and bioactivities of sesamin, sesamolin and sesamol in melanoma cell models	Khon Kaen University	2017-2021
Doctor of Pharmacy (Pharmaceutical Sciences), FIRST CLASS HONOR; GPA 3.69	Khon Kaen University	2011-2017

Work	Year
Faculty Lecturer Department of Pharmaceutical Chemistry, Faculty of Pharmaceuticals Sciences, Khon Kaen University	2021 to current

Experiences	Year
1. **Social Innovation Hackathon competitor** • TS and team (AppHerb) were in top 12 teams from 337 competitive teams in the social innovation hackathon competition in Honor the King Legacy (HTKL) 2020 Program. This competitive program was organized by Nissan Motor Thailand, National innovation agency (NIA), Advance information service (AIS) Thailand and Microsoft Thailand. For more information, please visit www.htkl.info or www.appherb.co (demo)	2020 to 2021
2. Visiting Ph.D. student at School of Pharmacy, University of Eastern Finland, Kuopio, Finland • Synthesis a prodrug of sesamol targeting LAT1 protein for enhancing binding affinity to LAT1, cellular uptake and cytotoxicity against melanoma cells. • Hand on LC-MS/MS, NMR, Synthesis and Radiolabeled technique	2019 to 2020
3. Pharmaceutical internship at Graduate school of Pharmaceutical Sciences, University of Kyushu, Fukuoka, Japan • Synthesis fragment of antibody (Fab) from monoclonal antibody • Hand on gel electrophoresis, SDS-PAGE and Western blot technique	2016

Skills

Pharmaceutical Sciences Skills

1. LAT1 protein targeted prodrug synthesis
2. *In vitro* route of drug transportation analysis
3. Michaelis-Menten drug uptake kinetics analysis (V_{max}, K_m, P_d)
4. Cytotoxicity analysis (Hill equation); IC_{50}, E_{max}, Hill coefficient
5. NMR spectra analysis (^{2}H, ^{13}C, COSY, HMBC)
6. Mass spectra analysis (MS)
7. FTIR microspectroscopy analysis
8. Real-time PCR analysis
9. Method validation (HPLC)
10. 3D cell cultures technology
11. Cell based assay
12. mRNA expression analysis
13. Structure activity relationship analysis
14. Radiolabeled analysis

Data Science Skills

1. R, Python, JavaScript
2. Chemoinformatic and bioinformatic analysis
3. Partial least square analysis (PLS)
4. Non-parametric and parametric analysis
5. Supervised machine learning; random forest, neural network, partial least square
6. Unsupervised machine learning; *k*-mean clustering, principal component analysis (PCA), hierarchical clustering analysis
7. GraphPad, Datagraph, Excel, Unscrambler X

Interpersonal Skills

1. Self-learning
2. Design thinking
3. Business model development
4. Problem-solving
5. Time management
6. Leadership and teamwork
7. Flexibility/adaptability

Languages

1. English (Proficient: TOEFL-ITP: 563)
2. Thai (Native)

Publications (International)

1. **Srisongkram, T.**, & Weerapreeyakul, N. (2019). Validation of cell-based assay for quantification of sesamol uptake and Its application for measuring target exposure. **Molecules, 24**(19), 3522. (ISI Q2, IF = 3.267)
2. **Srisongkram, T.**, Weerapreeyakul, N., Kärkkäinen, J., & Rautio, J. (2019). Role of L-Type Amino Acid Transporter 1 (LAT1) for the Selective Cytotoxicity of Sesamol in Human Melanoma Cells. **Molecules, 24**(21), 3869. (ISI Q2, IF = 3.267)
3. **Srisongkram, T.**, Weerapreeyakul, N., & Thumanu, K. (2020). Evaluation of Melanoma (SK-MEL-2) Cell Growth between Three-Dimensional (3D) and Two-Dimensional (2D) Cell Cultures with Fourier Transform Infrared (FTIR) Microspectroscopy. **International Journal of Molecular Sciences, 21**(11), 4141. (ISI Q1, IF = 4.556)

Publications (National)

1. **ธราพงษ์ ศรีสงคราม,** นาถธิดา วีระปรียากูร, กาญจนา ธรรมนู. (2020) ซิงโครตรอน ติดตามคุณภาพเซลล์มะเร็งรูปแบบสามมิติ. Thai Synchrotron national lab. www.slri.or.th/th/slriresearch/ซินโครตรอน-ติดตามคุณภาพเซลล์มะเร็งผิวหนังในรูปแบบสามมิติ.html

Book Chapter (National)

2. นาถธิดา วีระปรียากูร, **ธราพงษ์ ศรีสงคราม.** บทที่ 7 เทคนิคพื้นฐานและแบบจำลองเซลล์ไลน์เพาะเลี้ยง ใน: นาถธิดา วีระปรียากูร, บรรณาธิการ. อะพอพโทซิส จากพื้นฐานสู่การประยุกต์ใช้เพื่อทดสอบฤทธิ์ต้านมะเร็ง พิมพ์ครั้งที่ 1 ขอนแก่น : โรงพิมพ์มหาวิทยาลัยขอนแก่น พ.ศ. 2561 หน้า 177–195 จำนวน 19 หน้า

Oral presentations (International conference)

1. **Srisongkram, T.**, & Weerapreeyakul, N. (2019) Transportation Pathways of Sesamol in Melanoma (SK-MEL-2) Cells. The Fifth International Symposium on Pharmaceutical and Biomedical Sciences (5^{th} ISPBS). Kilis 7 Aralık University. Cappadocia, Nevsehir, Turkey. April 26^{th} – 28^{th}

Oral presentations (National conference)

2. **Srisongkram, T.**, & Weerapreeyakul, N. (2019) Competitive uptake of sesamol with L-amino acids in melanoma cells. RGJ-University Forum (Northeast). Avani Khon Kaen hotel & convention centre. RGJ-Ph.D. Thailand Research Fund. Khon Kaen, Thailand. May 23^{th}

Poster presentation (National conference)

1. **Srisongkram, T.**, Weerapreeyakul, N. & Thumanu, K. (2019) Fourier transform infrared (FTIR) microspectroscopy distinguished between adherent and multicellular tumor spheroid cell culture in human malignant melanoma cells. Annual User Meeting 2019. The Sukosol Hotel Bangkok. Synchrotron Light Research Institute (Public Organization). Bangkok, Thailand. May 1^{st}.

Trainings and Certificates	Year
1. Data Science to Power Implementation with Social Determinants of Health by University of Maryland	2021
2. Nissan social innovation hackathon 2020 on Jan- Mar 2021, Bangkok Thailand	2021
3. The complete 2021 web development bootcamp by Dr. Angela Yu, Udemy.com	2021
4. 100 Days of Code – The Complete Python Pro Bootcamp for 2021 by Dr. Angela Yu, Udemy.com	2021
5. AI for Healthcare Workshop in the post COVID-19 era, organized by Khon Kaen University	2020
6. ASEAN Workshop on Infrared Microspectroscopy and Imaging (AWIR) at Synchrotron light research institute, Nakhon Ratchasima, Thailand	2018

Scholarships	Year
1. Royal Golden Jubilee (RGJ) Ph.D. Program. Thailand Research Fund. Grant number; PHD/0131/59	2017-2021
2. Graduate School of Khon Kaen University.	2019
3. Synchrotron Light Research Institute (public organization).	2018

Awards	Year
1. **Excellent poster presentation awarded.** Annual User Meeting 2019. Synchrotron Light Research Institute (Public Organization). Bangkok, Thailand.	2019
2. **Graduate student reputation enhancement awarded.** The 21st National Graduate Research Conference (NGRG). Graduate school. Khon Kaen University, Khon Kaen, Thailand.	2019

Professional References

Professor Dr. Kanokwan Jarukamjorn, Head of Department |Email: kanok_ja@kku.ac.th