

# Tarapong Srisonkram

Department of Pharmaceutical Chemistry, Faculty of Pharmaceuticals Sciences,

Khon Kaen University, Khon Kaen 40002

Tel. (+66)84-510-4162 • Email: [tarasri@kku.ac.th](mailto:tarasri@kku.ac.th) • [Github](#) • [LinkedIn](#)

Educations	Year
<b>Doctor of Philosophy (Research and Development in Pharmaceuticals)</b> , (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
<b>Doctor of Pharmacy (Pharmaceutical Sciences)</b> , FIRST CLASS HONOR; GPA 3.69	Khon Kaen University 2011-2017
Work	Year
<b>Faculty Lecturer</b> Department of Pharmaceutical Chemistry, Faculty of Pharmaceuticals Sciences, Khon Kaen University	2021 to current
Experiences	Year
1. <b>Social Innovation Hackathon competitor</b> <ul style="list-style-type: none"><li>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 <a href="http://www.htkl.info">www.htkl.info</a> or <a href="http://www.appherb.co">www.appherb.co</a> (demo)</li></ul>	2020 to 2021
2. <b>Visiting Ph.D. student</b> at School of Pharmacy, University of Eastern Finland, Kuopio, Finland <ul style="list-style-type: none"><li>Synthesis a prodrug of sesamol targeting LAT1 protein for enhancing binding affinity to LAT1, cellular uptake and cytotoxicity against melanoma cells.</li><li>Hand on LC-MS/MS, NMR, Synthesis and Radiolabeled technique</li></ul>	2019 to 2020
3. <b>Pharmaceutical internship</b> at Graduate school of Pharmaceutical Sciences, University of Kyushu, Fukuoka, Japan <ul style="list-style-type: none"><li>Synthesis fragment of antibody (Fab) from monoclonal antibody</li><li>Hand on gel electrophoresis, SDS-PAGE and Western blot technique</li></ul>	2016

## Skills

### Pharmaceutical Sciences Skills

- 
- |  |  |
|--|--|
| 1. LAT1 protein targeted prodrug synthesis   | 6. Mass spectra analysis (MS)                |
| 2. <i>In vitro</i> route of drug transportation analysis                           | 7. FTIR microspectroscopy analysis           |
| 3. Michaelis-Menten drug uptake kinetics analysis ( $V_{max}$ , $K_m$ , $P_d$ )    | 8. Real-time PCR analysis                    |
| 4. Cytotoxicity analysis (Hill equation); $IC_{50}$ , $E_{max}$ , Hill coefficient | 9. Method validation (HPLC)                  |
| 5. NMR spectra analysis ( $^2H$ , $^{13}C$ , COSY, HMBC)                           | 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  | 6. Unsupervised machine learning; $k$ -mean clustering, principal component analysis (PCA), hierarchical clustering analysis |
| 2. Chemoinformatic and bioinformatic analysis                                       | 7. GraphPad, DataGraph, Excel, Unscrambler X   |
| 3. Partial least square analysis (PLS)  |  |
| 4. Non-parametric and parametric analysis   |  |
| 5. Supervised machine learning; random forest, neural network, partial least square |  |
- 

### Interpersonal Skills

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

### 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. ชราพงษ์ ศรีสังกรณ์, นาถธิดา วีระบุรียากร, กาญจนा ธรรมนู. (2020) ชิ้นโคตรตอน ติดตามคุณภาพเซลล์มะเร็งรูปแบบสามมิติ. Thai Synchrotron national lab. [www.sli.or.th/th/sliresearch/ชิ้นโคตรตอน-ติดตามคุณภาพเซลล์มะเร็งค่าหนังในรูปแบบสามมิติ.html](http://www.sli.or.th/th/sliresearch/ชิ้นโคตรตอน-ติดตามคุณภาพเซลล์มะเร็งค่าหนังในรูปแบบสามมิติ.html)

### Book Chapter (National)

2. นาถธิดา วีระบุรียากร, ชราพงษ์ ศรีสังกรณ์. บทที่ 7 เทคนิคพื้นฐานและแบบจำลองเซลล์โลหะเดือย ใน: นาถธิดา วีระบุรียากร, 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<sup>th</sup> ISPBS). Kilis 7 Aralik University. Cappadocia, Nevsehir, Turkey. April 26<sup>th</sup> – 28<sup>th</sup>

#### **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<sup>th</sup>

#### **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<sup>st</sup>.

#### **Trainings and Certificates**

	<b>Year</b>
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**

	<b>Year</b>
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**

	<b>Year</b>
1. <b>Excellent poster presentation awarded.</b> Annual User Meeting 2019. Synchrotron Light Research Institute (Public Organization). Bangkok, Thailand.	2019
2. <b>Graduate student reputation enhancement awarded.</b> The 21 <sup>st</sup> 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](mailto:kanok_ja@kku.ac.th)