

ประวัติและผลงานอาจารย์

ชื่อ-นามสกุล (ภาษาไทย) นาย ธิติอนันต์ กุลศิริรัตน์

ชื่อ-นามสกุล (ภาษาอังกฤษ) Mr. Thitianan Kulsirirat

ตำแหน่งทางวิชาการ อาจารย์

สถานที่ทำงาน สาขาวิชาชีวเภสัชศาสตร์ คณะเภสัชศาสตร์ มหาวิทยาลัยศรีนครินทรวิโรฒ 63 หมู่ 7 ถนนรังสิตนครนายก ตำบลองครักษ์ อำเภอองครักษ์ จังหวัดนครนายก 26120

เบอร์โทรศัพท์ 037-395-094 ต่อ 2-1707

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คุณวุฒิ สาขาวิชาและสถาบันที่สำเร็จการศึกษา (เรียงจากระดับปริญญาตรี ปริญญาโท และปริญญาเอก)

วุฒิการศึกษา	คุณวุฒิสถาวิชา	สถานศึกษา	ปีที่จบการศึกษา
ปริญญาตรี	เภสัชศาสตร์บัณฑิต (เกียรตินิยมอันดับ 2)	มหาวิทยาลัยหัวเฉียวเฉลิมพระเกียรติ	2556
ปริญญาโท	เภสัชศาสตรมหาบัณฑิต (เภสัชการ)	มหาวิทยาลัยมหิดล	2559
ปริญญาเอก	ปรัชญาดุษฎีบัณฑิต (เภสัชการ)	มหาวิทยาลัยมหิดล	2563
หลังปริญญาเอก	Post-doctoral	มหาวิทยาลัยมหิดล	2565

ความเชี่ยวชาญ:

Stem Cell research, Drug delivery system, Permeation, cellular and small animal research, Pharmacokinetics

รางวัล/ทุนวิจัยที่ได้รับ

Awards/ Honors and Scholarship

2021 - 2023	<p>Funding from Health Systems Research Institute (HSRI64-043), Thailand.</p> <p>Title: The development of innovative treatment using polymeric targetable drug delivery system for Thai medicinal herb ingredients to stem cells with the pharmacokinetics and pharmacodynamics principle</p>
2022	<p>Oral Presentation for the Distinguished Thesis Awards, Fiscal Year 2022 Category: Biological Sciences</p> <p>Faculty of Graduate Studies, Mahidol University</p> <p>Title: The study of medical and pharmacokinetic potential of Thai herbal extracts on differentiation of stem cells aiming for regenerative medicine</p>
2019	<p>3rd Prize winner Innovative Idea Competition of Thai Students' Association in Japan under the Royal Patronage: TSAJ, Tokyo, Japan</p> <p>Title: The development of drug delivery system providers for geriatric care in Japan</p>
2019	<p>Most Awesome Award Presentation PK Summer Boot Camp</p> <p>RIKEN, Yokohama, Japan</p>
2016 - 2019	<p>The Royal Golden Jubilee Ph.D. Programme (RGJ) Scholarship</p> <p>Title: The study of medical and pharmacokinetic potential of Thai herbal extracts on differentiation of stem cells aiming for regenerative medicine</p>
2015	<p>Certificate of Honor and Appreciation Awarded Princess Maha Chakri Sirindhorn Congress International approach to sustainable research and development</p>

2015	<p>Certificate of award on the 1st International Conference on Pharmacy Education and Research Network of ASEAN (ASEAN PHARMNET I)</p> <p>Title: Pgp-GLO™ Assay Systems: A tool for high-throughput screening to predict biopharmaceutics of non-ionic surfactant</p>
2013	<p>The 60th Year Supreme Reign of His Majesty King Bhumibol Adulyadej Scholarship</p> <p>Faculty of Graduate Studies, Mahidol University</p>
2013	<p>Certificate of award on Special project of Pharmaceutical Science</p> <p>Title: Effects of dry binders on the mechanical and disintegration properties of nava-kote tablets</p>

Professional society membership

- Graduate Studies of Mahidol University Alumni
- Japan Society of Drug Delivery system

Guest Speaker:

1. The Academy of Pharmaceutical Science and Technology, Kobe Gakuin University, Japan. 6 February 2019
 Title: Possible using of the molecule from Thai herbal extract on the differentiation of mesenchymal stem cells aiming for regenerative medicine
2. Drug Discovery and Development, Miracle Grand Convention Hotel, Bangkok, Thailand. 25-27 December 2017
 Title: Classification of drug molecules with ADMET concept in drug permeability studies.

Publications and Academic presentation

Oral Presentations:

Titles	Year
1. T. Kulsirrat , K. Sathirakul. Title: The study of medical and pharmacokinetic potential of Thai herbal extracts on differentiation of stem cells aiming for regenerative medicine Distinguished Thesis Awards, Fiscal Year 2022, Faculty of Graduate Studies, Mahidol University	2022
2. T. Kulsirrat , K. Sathirakul, N. Kamei, Takeda-Morishita M., Title: Design and development of a novel Andrographolide formulation for intra-articular drug delivery systems. 2021 CSPS/PSJ/CC-CRS SYMPOSIUM Pharmaceutical Sciences in a Pandemic World, Canada. (online).	2021
3. T. Kulsirrat , Y. Takahashi, K. Sathirakul, N. Kamei, Takeda-Morishita M., Title: Design and development of Andrographolide for intra-articular drug delivery systems. The 36 th Annual meeting of the Japan Society of Drug Delivery System, Kobe, Japan.	2020
4. T. Kulsirrat , K. Sathirakul., S. Honsawek, P. Rugthong., Takeda-Morishita M., Title: The study of controlled/sustained release formulation for Thai herbal extract to improve delivery and extend residence time of joint disease therapy aiming for regenerative medicine. The 35 th Annual meeting of the Japan Society of Drug Delivery System, Yokohama, Japan.	2019
5. T. Kulsirrat , S. Honsawek, Takeda-Morishita M., K. Sathirakul. Title: Advanced therapeutics promising of the Thai herbal extract molecule on the differentiation of mesenchymal stem cells aiming for regenerative medicine. RGJ-University Forum. Bangkok, Thailand.	2019

<p>6. T. Kulsirirat, K. Sathirakul.</p> <p>Title: High-Throughput Screening Prediction for Biopharmaceutics of Non-ionic Surfactant Using Pgp-Glo™ Assay Systems. Princess Maha Chakri Sirindhorn Congress (The 5th Interdisciplinary Day Conference) Interdisciplinary Approach to Sustainable Research and Development. IMPACT Forum, IMPACT, Muang Thong Thani, Nonthaburi, Thailand.</p>	<p>2015</p>
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Poster Presentations:

Titles	Year
<p>1. N. Sowankul, N. Thanusorn, K. Sathirakul, P. Ruenraroengsak, J. Leanpolchareanchai, J. Romsaiyud, T. Kulsirirat</p> <p>Title: The study of physicochemical properties, toxicity, and biopharmaceutics of highly aqueous soluble Andrographolide nanoparticles developed in house in order to evaluate the possibility for respiratory tract targeting as nasal nebulizer.</p> <p>Faculty of Pharmacy, Mahidol University.</p>	<p>2023</p>
<p>2. T. Kulsirirat, S. Honsawek, Takeda-Morishita M., K. Sathirakul.</p> <p>Title: The Development of Polymeric Drug Delivery System to Target Active Ingredient in Thai Medicinal Herb Administered Intra-articularly to Regulate Mesenchymal Stem Cells for Regenerative Medicine. The 2021 National RGJ and RRI Conferences.</p>	<p>2021</p>
<p>3. S. Boonyuen, T. Phromsatit, P. Arpornmaeklong, Y. Shirosaki, T. Teerawatananond, T. Kulsirirat, K. Sathirakul, J. Rabablert.</p> <p>Title: <i>In Vitro</i> Cytotoxicity Study of Copper and Gold Porphyrin Complexes, PACCON 2020, IMPACT Forum, Muangthong Thani, Bangkok, Thailand.</p>	<p>2020</p>

4. T. Phromsatit, S. Boonyuen, T Kulsirirat , K.Sathirakul., Title: Synthesis, and cytotoxicity study of Cu (II) tetrakis(4-alkyloxy) phenyl porphyrin complexes, PACCON 2019, Bangkok International Trade & Exhibition Centre (BITEC), 7-8 February, 2019 Bangkok, Thailand	2019
5. T. Kulsirirat , K. Sathirakul., Title: Pgp-GLO™ Assay Systems: A tool for high-throughput screening to predict biopharmaceutics of non-ionic surfactant, The 1 st International Conference on Pharmacy Education and Research Network of ASEAN Harmonizing the Diversity of Pharmacy Profession in the Era of AEC (ASEAN PHARM NET I), Bangkok, Thailand	2015
6. B. Nimprayoon, P. Rukthong, P.Dechwongya, S. limpisood T. Kulsirirat , K. Sathirakul., Title: <i>In Silico</i> Biopharmaceutics of α -Mangostin Garcinia mangostana L. Pericarp Extract, The 3 rd Scientific Program Current Drug Development International Conference (CDD 2014) Ao Nang Beach Resort, Ao Nang, Krabi, Thailand	2014

Proceeding:

Titles	Year
1. C. Jitsongserm, J. Bonyapichest, K. Sathirakul, S. Limpisood, T.Kulsirirat , N. Boonnak, P. Buranatrakul, A.W. Salae, P. Rukthong., Title: <i>IN SILICO</i> AND <i>IN VITRO</i> STUDIES INDICATE THE SOLUBILITY AND PERMEABILITY PROPERTIES OF CURCUMIN. The 5 th international Conference on Drug Development (CDD 2018) and 3 rd international on Herb and Traditional Medicine (HTM 2018), 165-166. May 23-25 Songkhla, Thailand	2018

<p>2. P. Lertpatipanpong, T.Pupen, K.Sathirakul, C.Krisanapun, S. Limpisood, S. Leethochawalit, T.Kulsirirat, P.Buranatrakul, P. Rakthong.,</p> <p>Title: DEVELOPMENT OF PHARMACOKINETIC MODEL OF EZETIMIBE USING COMPUTER SIMULATIONS. The 5th international Conference on Drug Development (CDD 2018) and 3rd international on Herb and Traditional Medicine (HTM 2018), 142-144. May 23-25 Songkhla Thailand</p>	<p>2018</p>
<p>3. P.Phonboon, K.Sathirakul, C. Krisanapun S.Limpisood, T.Kulsirirat, S.Leethochawalit, P.Buranatrakul, P. Rukthong.,</p> <p>Title: THE DEVELOPMENT OF WARFARIN PHARMACOKINETICS AND PHARMACODYNAMICS MODEL TO PREDICT INR VALUE USING COMPUTER SIMULATIONS. The 5th international Conference on Drug Development (CDD 2018) and 3rd international on Herb and Traditional Medicine (HTM 2018), 146-147. May 23-25 Songkhla Thailand.</p>	<p>2018</p>
<p>4. T. Kulsirirat, P. Rukthong, P.Dechwongya, K.Sathirakul.</p> <p>Title: The optimum concentration of non-ionic surfactant for improvement of drug transport using high-throughput screening method. The JSPS-NRCT Follow-Up Seminar 2017 and 33rd International Annual Meeting in Pharmaceutical Sciences (JSPS-NRCT 2017 AND IAMPS 33). March 2-3, 2017, The Berkeley Hotel Pratunam, Bangkok, Thailand.</p>	<p>2017</p>
<p>5. K. Methaset, K.Sathirakul, S.Limpisood, T.Kulsirirat, S.Leethochawalit, N. Chulsom, P. Rukthong</p> <p>Title: Pharmacokinetic Modeling to Predict the Phenytoin Level in Blood by Using SELLA Program. Proceeding for the 4th Current Drug Development International Conference 2016 (CDD2016), Phuket Graceland Resort & Spa, Patong Beach, Phuket, Thailand.</p>	<p>2016</p>
<p>6. T. Kulsirirat, C. Lorpongpaiboon, K. Hammaworachat, S. Kasemsuwan, S. Channarong.</p>	<p>2012</p>

Title: Effects of dry binders on the mechanical and disintegration properties of Nava-Kote tablets. Thai Journal of Pharmaceutical Sciences (TJPS), 2012, 36(SUPPL.), pp. 128–131.	
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International Publications:

Titles	Participation	Year
1. Kuendee, N., Naladta, A., Kulsirirat, T. , Yimsoo, T., Yingmema, W., Pansuksan, K., Sathirakul, K., Sukprasert, S. Lysiphyllum strychnifolium (Craib) A. Schmitz Extracts Moderate the Expression of Drug-Metabolizing Enzymes: <i>In Vivo</i> Study to Clinical Propose. Pharmaceuticals 2023, 16, 237. https://doi.org/10.3390/ph16020237 (Impact Factor: 5.215, Q1/2021)	Author	2023
2. Woottisin, N., Sukprasert, S., Kulsirirat, T. , Tharavanij, T., Sathirakul, K. Evaluation of the Intestinal Permeability of Rosmarinic Acid from Thunbergia laurifolia Leaf Water Extract in a Caco-2 Cell Model. Molecules 2022, 27(12), 3884; https://doi.org/10.3390/molecules27123884 . (Impact Factor: 4.927, Q1/2021); citations 3	Author	2022
3. Kulsirirat T. , Sathirakul K., Kamei N., Takeda-Morishita M. The <i>in vitro</i> and <i>in vivo</i> study of novel formulation of andrographolide PLGA nanoparticle embedded into gelatin-based hydrogel to prolong delivery and extend residence time in joint. Int.	First author	2021

<p>J. Pharm. 2021, 602 120618 https://doi.org/10.1016/j.ijpharm.2021.120618. (Impact Factor: 6.51, Top 10% Q1/2021); citations 13</p>		
<p>4. Kulsirirat, T., Honsawek, S., Takeda-Morishita, M., Sinchaipanid, N., Udomsinprasert, W., Leanpolchareanchai, J., Sathirakul, K. The Effects of Andrographolide on the Enhancement of Chondrogenesis and Osteogenesis in Human Suprapatellar Fat Pad Derived Mesenchymal Stem Cells. <i>Molecules</i> 2021, 26(7), 1831; https://doi.org/10.3390/molecules26071831. (Impact Factor: 4.927, Q1/2021); citations 8</p>	<p>First author</p>	<p>2021</p>
<p>5. Rukthong, P., Sereesongsang, N., Kulsirirat, T. et al. <i>In vitro</i> investigation of metabolic fate of α-mangostin and gartanin via skin permeation by LC-MS/MS and in silico evaluation of the metabolites by ADMET predictor™. <i>BMC Complement Med Ther</i> 2020, 20, 359.; https://doi.org/10.1186/s12906-020-03144-7 (Impact Factor:2.838, Q1/2021); citations 3</p>	<p>Author</p>	<p>2020</p>
<p>6. Dechwongya, P., Limpisood, S., Boonnak, N., Mangmool, S., Takeda-Morishita, M., Kulsirirat, T., Rukthong, P., Sathirakul, K. The Intestinal Efflux Transporter Inhibition Activity of Xanthones from Mangosteen Pericarp: An <i>In Silico</i>, <i>In Vitro</i> and <i>Ex Vivo</i> Approach. <i>Molecules</i> 2020, 25(24), 5877; https://doi.org/10.3390/molecules25245877. (Impact Factor: 4.927, Q1/2021); citations 2</p>	<p>Author</p>	<p>2020</p>

<p>7. Kulsirirat T., Rukthong P., Dechwongya P. and Sathirakul K. The Potential of Non-Ionic Surfactant Against P-Glycoprotein Efflux Transporters for Drug Development System. <i>J Bioequiv Availab</i> 2017, 9:528-529. DOI: 10.4172/jbb.1000357</p>	<p>First author</p>	<p>2017</p>
<p>8. Rukthong P., Sereesongsang N., Kulsirirat T., Nimprayoon B., Sathirakul K. Effect of α-mangostin on Enhanced Transdermal Bioavailability of Gartanin via Efflux Transporters. <i>J Bioequiv Availab</i> 2017, 9:455-462. DOI: 10.4172/jbb.1000344</p>	<p>Author</p>	<p>2017</p>

Academic Article

ทฤษฎีและการปฏิบัติการศึกษาการซึมผ่าน (Permeation) ในหลอดทดลองเพื่อใช้จำแนกยาตามเกณฑ์บีซีเอส สมาคมเภสัชกรอุตสาหกรรม (ประเทศไทย) มิถุนายน 2018