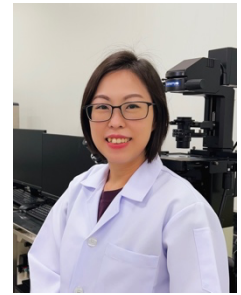


Curriculum Vitae

ชื่อ (ภาษาไทย) รองศาสตราจารย์ สพ.ญ.ดร. ศิริพันธ์ ธีระวัฒน์ศิริกุล
(ภาษาอังกฤษ) Associate Professor Dr. Sirin Theerawatanasirikul

ตำแหน่งทางวิชาการ (academic position) รองศาสตราจารย์ (Associate Professor)

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 เลขที่ 50 ถนนงามวงศ์วาน เขตลาดยาว แขวงจตุจักร กรุงเทพมหานคร 10900
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การศึกษา (education)

- 2555 Ph.D. (Veterinary Pathobiology) คณะสัตวแพทยศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย
- 2550 สัตวแพทยศาสตรบัณฑิต (เกียรตินิยมอันดับ 1 เหรียญรางวัล) คณะสัตวแพทยศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

สาขาวิชาที่เชี่ยวชาญ/สนใจ (Research Interests)

พยาธิชีววิทยา, อณูชีววิทยาทางโมเลกุล, ไวรัสวิทยา, การพัฒนายาต้านไวรัส, การคัดสรรเสมือน, การพัฒนายา
 Pathobiology, Molecular biology, Virology, Antiviral development, Virtual screening, Drug discovery

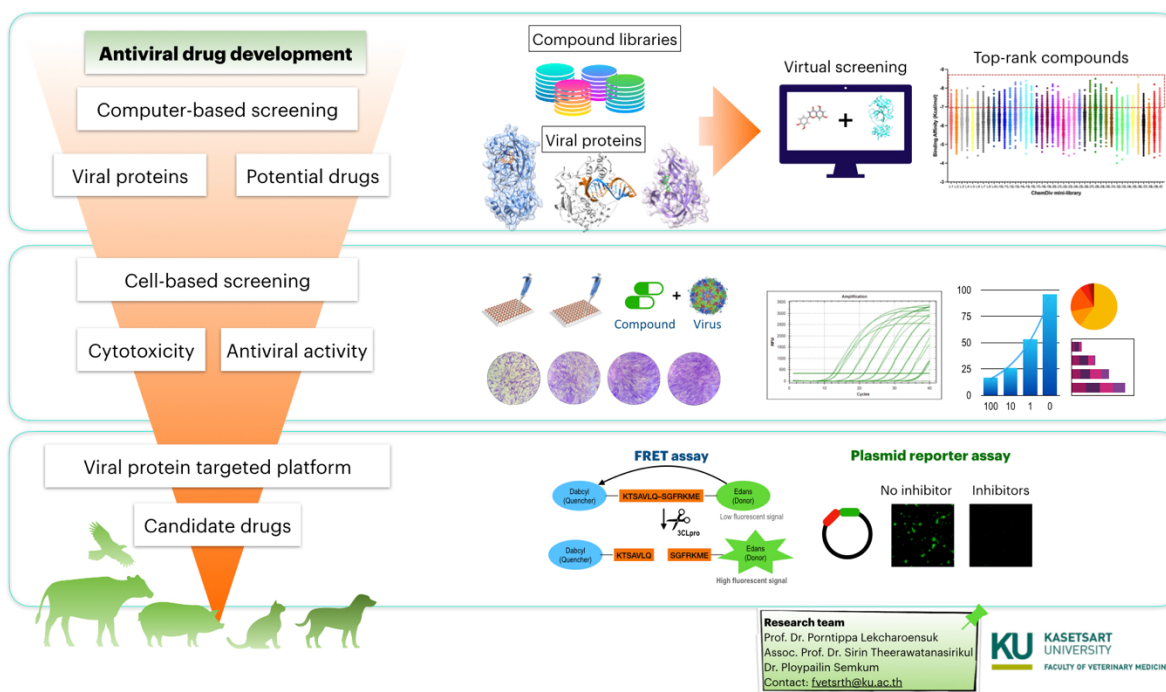
งานวิจัยปัจจุบัน (Current Research)

1. การพัฒนายาต้านไวรัสของเชื้อไวรัสที่ก่อโรคในสัตว์เลี้ยง และสัตว์เลี้ยงลูกด้วยนม (Development of antiviral drugs against viral pathogens that cause diseases in livestock and companion animals.)
2. การศึกษามุ่งเป้าของโปรตีนหรือโมเลกุลเพื่อการพัฒนาต้านไวรัสในสัตว์และโรคที่เกี่ยวข้องในคน (Targeting molecular proteins for the development of antiviral drugs against viral infections in animals and associated human diseases.)
3. กลไกการติดเชื้อไวรัสในสัตว์ (The mechanism of viral infection in animals.)

ทุนวิจัยที่ได้รับ (Research grant received)

1. Research Funding, Faculty of Veterinary Medicine (2023), Bangkok, Thailand (Principal investigator)
2. Fundamental Fund (2021-2022), Kasetsart University, Bangkok, Thailand (Principal investigator)
3. TRF Research Team Promotion Grant, (RTA), Thailand Science Research and Innovation (2019-2022), Bangkok, Thailand (Principle investigator)

4. The New Southbound Policy and the Featured Areas Research Center Program within the framework of the Higher Education Sprout Project, The Ministry of Education (2018-2019), Taiwan (Co-investigator)
5. Research Grant for New Scholar (MRG), The Thailand Research Fund (2018-2019), Thailand Science Research and Innovation, Bangkok, Thailand (Principal investigator)



Dr. Sirin is an integral part of a research team focusing on veterinary infectious diseases and the molecular mechanisms of viral-host interactions. Their collective research aims to deepen our understanding of viral pathogenesis and discover novel antiviral agents. The team's research specifically centers around computer-aided drug discovery and cell-based antiviral assays, with a special emphasis on investigating animal coronaviruses and picornaviruses such as feline infectious peritonitis virus (FIPV) and foot-and-mouth disease virus (FMDV). Through their extensive academic and research endeavors, the team has made significant contributions to the field of veterinary medicine, particularly in the areas of antiviral drug development, understanding the intricate dynamics between viruses and their hosts, and developing platforms for drug screening and diagnostic tools.

ผลงานตีพิมพ์ (ย้อนหลัง 5 ปี)

ผลงานตีพิมพ์ในวารสารระดับนานาชาติ (International publications)

2023

1. **Sirin Theerawatanasirikul**, Varanya Lueangaramkul, Achiraya Pantanam, Natjira Mana, Ploypailin Semkum, Porntippa Lekcharoensuk. Small Molecules Targeting 3C Protease Inhibit FMDV Replication and Exhibit Virucidal Effect in Cell-Based Assays. *Viruses* 2023, 15, 1887, September 2023. doi:10.3390/v15091887. (Q1, 2022; Impact factor =4.7)
2. **Sirin Theerawatanasirikul**, Varanya Lueangaramkul, Ploypailin Semkum, Porntippa Lekcharoensuk. Antiviral mechanisms of sorafenib against foot-and-mouth disease virus via c-RAF and AKT/PI3K pathways. *Vet. Res. Commun.* 2023, September 2023. doi:10.1007/s11259-023-10211-0. (Q1, 2022, Impact factor = 2.2)
3. Chanittha Triratapiban, Varanya Lueangaramkul, Nantawan Phecharat, Achiraya Pantanam, Porntippa Lekcharoensuk, and **Sirin Theerawatanasirikul**. First study on in vitro antiviral and virucidal effects of flavonoids against feline infectious peritonitis virus at the early stage of infection. *Veterinary World* 2023, 16 (3) 618-630, March 2023. <https://doi.org/10.14202/vetworld.2023.618-630> (Q1, 2022 Impact factor = 7.4)
4. Ploypailin Semkum, Nattarat Thangthamniyom, Penpitcha Chankeeree, Challika Keawborisuth, **Sirin Theerawatanasirikul**, Porntippa Lekcharoensuk. The Application of the Gibson Assembly Method in the Production of Two pKLS3 Vector-Derived Infectious Clones of Foot-and-Mouth Disease Virus. *Vaccines* 2023, 11, 1111, June 2023. doi:10.3390/vaccines11061111.
5. Kanyarat Thueng-In, **Sirin Theerawatanasirikul**, P Meechan, Porntippa Lekcharoensuk, Wanpen Chaicumpa. Cell-penetrating porcine single-chain antibodies (transbodies) against nonstructural protein 1 β (NSP1 β) of porcine reproductive and respiratory syndrome virus inhibit virus replication. *Archives of Virology* 2023, 168 (5), 133. May 2023. <https://doi.org/10.1007/s00705-023-05760-3>. (Q2, 2021; Impact factor = 2.685)
6. **Sirin Theerawatanasirikul**, Ploypailin Semkum, Varanya Lueangaramkul, Penpitcha Chankeeree, Nattarat Thangthamniyom and Porntippa Lekcharoensuk. Non-nucleoside Inhibitors Decrease Foot-and-Mouth Disease Virus Replication by Blocking the Viral 3Dpol. *Viruses* 2023, 15(1), 124. <https://doi.org/10.3390/v15010124> - 30 Dec 2022. (Q1, 2021; Impact factor =5.818)

2022

7. Nutthakarn Suwankitwat, Tapanut Songkasupa, Prakrit Boonpornprasert, Phurida Sripipattanakul, **Sirin Theerawatanasirikul**, et al. Rapid Spread and Genetic Characterisation of a Recently Emerged Recombinant Lumpy Skin Disease Virus in Thailand. *Veterinary Sciences*. 2022, 9, 542. September 2022 <https://doi.org/10.3390/vetsci9100542> (Q2, 2021; Impact factor =2.518)

8. **Sirin Theerawatanasirikul**, Varanya Lueangaramkul, Nattarat Thangthamniyom, Penpitcha Chankeeree, Ploypailin Semkum, Porntippa Lekcharoensuk. Andrographolide and Deoxyandrographolide inhibit protease and IFN-antagonist activities of Foot-and-Mouth Disease Virus 3Cpro. *Animals* 2022, 12(15), 1995; August 2022 <https://doi.org/10.3390/ani12151995>. (Q1, 2021; Impact factor = 3.212)

2021

9. **Sirin Theerawatanasirikul**, Nattarat Thangthamniyom, Chih Jung Kuo, Ploypailin Semkum, Nanthawan Phetcharat, Penpitcha Chankeeree, Porntippa Lekcharoensuk. Natural phytochemicals, luteolin and isoginkgetin, inhibit 3C protease and infection of FMDV, in silico and in vitro. *Viruses*. 2021, 13(11), 2118. <https://doi.org/10.3390/v13112118> (Q1, 2021; Impact factor =5.818)
10. Ploypailin Semkum P, Challika Kaewborisuth, Nattarat Thangthamniyom, **Sirin Theerawatanasirikul**, Chalernpol Lekcharoensuk, Prayuda Hansoongnern, Pongrama Ramasoota, Porntippa Lekcharoensuk. A novel plasmid DNA-based foot and mouth disease virus minigenome for intracytoplasmic mRNA production. *Viruses* 2021.13(6). <https://doi.org/10.3390/v13061047>. (Q1, 2021; Impact factor =5.818)
11. **Sirin Theerawatanasirikul** and Porntippa Lekcharoensuk. *Methods in Pharmacology and Toxicology: Virtual screening of natural compounds targeting proteases of coronaviruses and picornaviruses.* Springer Nature. pp661-68. 06 April, 2021. DOI: http://doi.org/10.1007/7653_2020_63.

2020

12. **Sirin Theerawatanasirikul**, Chih Jung Kuo, Nantawan Phecharat., Jullada Chootip, Chalernpol Lekcharoensuk, Porntippa Lekcharoensuk. Structural-based virtual screening and in vitro assays for small molecules inhibiting the feline coronavirus 3CL protease as a surrogate platform for coronaviruses. *Antiviral Research*. Oct 2020. 182,104927. <https://doi.org/10.1016/j.antiviral.2020.104927> (Q1, 2020; Impact factor =5.970)
13. **Sirin Theerawatanasirikul**, Chih Jung Kuo, Nanthawan Phetcharat, Porntippa Lekcharoensuk. In silico and in vitro analysis of small molecules and natural compounds targeting the 3CL protease of feline infectious peritonitis virus. *Antiviral Research*. 2020. 174: 104697. <https://doi.org/10.1016/j.antiviral.2019.104697> (Q1, 2020; Impact factor =5.970)

2018

14. Pattama Mutthi, **Sirin Theerawatanasirikul**, Sittirak Roytrakul, Atchara Paemane, Chalernpol Lekcharoensuk, Prayuda Hansoongnern, Nantawan Phetcharat, Porntippa Lekcharoensuk. Interferon gamma induces cellular protein alteration and increases replication of porcine circovirus type 2 in PK-15 cells. *Archives of virology* 163, 2947-2957. <https://doi.org/10.1007/s00705-018-3944-1> (Q1, 2018; Impact factor = 2.286)

2017

15. **Sirin Theerawatanasirikul**, Nantawan Phecharat, Chaiwat Prawettongsopon, Wanpen Chaicumpa, Porntippa Lekcharoensuk. Dynein light chain DYNLL1 subunit facilitates porcine circovirus type 2 intracellular transports along microtubules. Archives of virology 162, 677-686.
<https://doi.org/10.1007/s00705-016-3140-0> (Q1, 2018; Impact factor = 2.314)

ประชุมวิชาการระดับนานาชาติ (International conferences)

1. **Sirin Theerawatanasirikul**, Varanya Lueangaramkul, Porntippa Lekcharoensuk. Antiviral inhibitors targeting 3C protease of Foot-and-mouth disease virus. The 38th World Veterinary Association Congress (WVAC2023). 26-29 April 2023, Taipei, Taiwan.
2. **Sirin Theerawatanasirikul**, Chalernpol Lekcharoensuk, Chih Jung Kuo, Julada Chootip, Nantawan Phetcharat, Porntippa Lekcharoensuk. In silico and in vitro analysis of small molecules and natural compounds targeting feline coronavirus (CoV) main protease, a surrogate platform for CoVs. JITMM2020. 15-16 December 2020, Bangkok, Thailand.
3. **Sirin Theerawatanasirikul**, and Porntippa Lekcharoensuk. Structural-Based Virtual Screening For Potential Small Molecules Against Picornavirus-Like Protease Supercluster. KUVIC2020. 23-25 November 2020, Bangkok, Thailand.
4. **Sirin Theerawatanasirikul**, Nantawan Phetcharat, and Porntippa Lekcharoensuk. Porcine circovirus type 2 interacts with cytoplasmic dynein motor protein for intracellular trafficking. The 6th congress of Asian Association of Veterinary Anatomists, 15 - 16 October 2017, Kuching, Malaysia.

รางวัล

2017 การนำเสนอผลงานปากเปล่ายอดเยี่ยมในงานประชุมวิชาการระดับนานาชาติ The 6th congress of Asian Association of Veterinary Anatomists, 15 - 16 October 2017, Kuching, Malaysia

สมาชิกสมาคม (Society Membership)

1. International Society for Antiviral Research
2. สัตวแพทย์สมาคมแห่งประเทศไทยใน พระบรมราชูปถัมภ์ (The Thai Veterinary Medical Association Under Royal Patronage)
3. สัตวแพทย์สภา (Veterinary Council of Thailand)

Link to:

1. <https://orcid.org/0000-0002-6912-9764>
2. <https://research.ku.ac.th/forest/Person.aspx?id=560038>
3. <https://loop.frontiersin.org/people/812847/overview>