

Curriculum Vitae

Anusorn Lungkaphin, PhD

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Marital Status Married

EDUCATION

2004 Ph.D. (Physiology), Mahidol University, Bangkok, Thailand
1997 Master of Science (Physiology), Chiang Mai University, Chiang Mai, Thailand
1990 Bachelor of Science (Nursing and Midwifery), with the First class honor, Mahidol University, Bangkok, Thailand

Special training

2002-2003 Visiting student at Department of Physiology, College of Medicine, University of Arizona, AZ, USA
2004-2005 Post-doctoral Fellow at National Institute of Environmental Health Sciences (NIEHS), National Institutes of Health (NIH), Department of Health and Human Services. North Carolina, USA

HONORS AND AWARDS

year

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PROFESSIONAL APPOINTMENT

1997-2012 Instructor, Department of Physiology, School of Medicine, Chiang Mai University, Chiang Mai, Thailand
2012-present Assistant Professor, Department of Physiology, School of Medicine, Chiang Mai University, Chiang Mai, Thailand

PROFESSIONAL LICENSES

year-Present

ORGANIZATION AND PARTICIPATION

1997-Present Thai Physiology Society

PROFESSIONAL ACTIVITIES

Critical Reviewer of Manuscripts for:

2018	Biochemistry and Cellular Biology
2018	Biomedicine and Pharmacotherapy
2018	Journal of Functional Foods
2018	Phytomedicine
2018	Phytotherapy Research
2018	Journal of Pharmacology and Pharmacotherapeutics
2019	Biofactors
2019	Diabetes, Obesity and Metabolism
2019	Journal of Cellular Physiology
2019	Phytotherapy Research
2019	Journal of Functional Foods
2019	Journal of Cellular and Molecular Medicine
2020	Clinical Science

PRESENTATIONS AT NATIONAL MEETINGS

December 2016 “The 44th Annual Scientific Meeting of The Physiology Society of Thailand”, Chiang Mai, Thailand

PRESENTATIONS AT INTERNATIONAL MEETINGS

January 2018	Swe MT, Phengpol N, Thongnak L, Pongchaidecha A, Lungkaphin A . The effects of high-fat high-fructose diet on glucose metabolism in rat model. International conference on Innovation of Functional Foods in Asia (IFFA), January 22-24, 2018. University of Phayao, Phayao Province, Thailand. (Poster presentation)
January 2018	Phengpol N, Pongchaidecha A, Wanchi K, Jaikumkao K, Thongnak L, Swe MT, Lungkaphin, A . High-fat high-fructose diet induces renal dysfunction in rat. International conference on Innovation of Functional Foods in Asia (IFFA), January 22-24, 2018. University of Phayao, Phayao Province, Thailand. (Poster presentation)
January 2018	Thongnak L, Phengpol N, Swe MT, Jaikumkao K, Pongchaidecha A, Lungkaphin, A . The effect of high-fat high-fructose diet on lipid

- accumulation in rat. International conference on Innovation of Functional Foods in Asia (IFFA), January 22-24, 2018. University of Phayao, Phayao Province, Thailand. (Poster presentation)
- April 2019 Swe MT, Jaikumkao K, Thongnak L, Pongchaidecha A, **Lungkaphin A.** Effect of dapagliflozin on glucose metabolism and renal and hepatic PEPCK expression in obese rats. 9th Federation of the Asian and Oceanian Physiological Societies (FAOPS), March 28-31, 2019. Kobe, Japan. (Poster presentation) (**Young Scientist Travel Award**)
- April 2019 Thongnak L, Swe MT, Jaikumkao K, Pongchaidecha A, Lungkaphin A. Protective effects of dapagliflozin and atorvastatin on renal function in insulin-resistant rats. 9th Federation of the Asian and Oceanian Physiological Societies (FAOPS), March 28-31, 2019. Kobe, Japan. (Poster presentation) (Young Scientist Travel Award)
- April 2019 Sasivimon Promsan, Rada Chenwelling, Anchalee Pongchaidecha¹ and **Anusorn Lungkaphin.** Protective Effects of Agomelatine on Inflammation in Obesity-Induced Kidney Injury. 9th Federation of the Asian and Oceanian Physiological Societies (FAOPS), March 28-31, 2019. Kobe, Japan. (Poster presentation)

INVITED LECTURES AT NATIONAL MEETINGS

INVITED LECTURES AT INTERNATIONAL MEETINGS

ACADEMIC ACTIVITIES

Graduate Student's Dissertation Committees

1. Phatchawan Arjinajarn, Ph.D., Chair of the Doctoral Degree Committee (Physiology)
Topic: Effect of Insulin on Renal Organic Anion Transporter 3 Function and Expression in Streptozotocin – induced Diabetic Rats
2. Sasivimon Promsan, B.S., Chair of the Master Degree Committee (Physiology)
Topic: Protective effects of pinocembrin on gentamicin-induced oxidative stress and nephrotoxicity in rats
3. Atcharaporn Ontawong, B.S., Member of the Master Degree Committee
Topic: (Physiology)
4. Krit Jaikumkao, B.S., Chair of the Master Degree Committee (Physiology)
Topic: Renoprotective Effects of Atorvastatin in Gentamicin-induced Nephrotoxicity Model in Rats
5. Decha Pinkeaw, Ph.D., Member of the Doctoral Degree Committee
Topic: (Physiology)
6. Krit Jaikumkao, Ph.D., Chair of the Doctoral Degree Committee (Physiology)
Topic: Effects of Sodium Glucose Co-transporter Type 2 (SGLT2 inhibitor) on Renal Function in Obese-Insulin Resistant Rats.)
7. Laongdao Thongnak, B.S., Chair of the Master Degree Committee (Physiology)
Topic: The protective effect of atorvastatin on renal functions in streptozotocin-induced diabetic rats
8. Keerati Wanchai, Ph.D., Chair of the Doctoral Degree Committee (Physiology)

- Topic: The Effect of Probiotic *Lactobacillus paracasei* ST11 (HP4) and Prebiotic Xylo-oligosaccharide (XOS) on Kidney Function in High-Fat Diet-Induced Obese Insulin-Resistant Rats.
9. Nuttawud Chueakula, B.S., Chair of the Master Degree Committee (Physiology)
Topic: Protective Effect of Diacerein on Renal Function in Obese Insulin - Resistant Rats.
 10. Rada Cherngwellng, B.S., Chair of the Master Degree Committee (Physiology)
Topic: The Effects of Agomelatine on Renal Organic Anion Transporter 3 Function and Endoplasmic Reticulum Stress-Induced Apoptosis in Obese Rats.
 11. Nattavadee Pengrattanachot, B.S., Member of the Master Degree Committee (Physiology)
Topic: The Effects of Agomelatine on Renal Organic Anion Transporter 3 Function and Endoplasmic Reticulum Stress-Induced Apoptosis in Obese Rats.
 12. Myat Theingi Swe, Ph.D., Chair of the Doctoral Degree Committee (Physiology)
Topic: Effects of Dapagliflozin on Renal and Hepatic Gluconeogenesis in Obese Insulin Resistant Rats
 13. Sasivimon Promsan, Ph.D., Chair of the Doctoral Degree Committee (Physiology)
Topic: The Effects of Agomelatine on Renal Function and Renal Organic Anion Transporter 3 (Oat3) Function in High-Fat Diet-induced Obese Insulin Resistance Rats.
 14. Laongdao Thongnak, Ph.D., Chair of the Doctoral Degree Committee (Physiology)
Topic: Protective Effects of Dipeptidyl Peptidase-4 Inhibitor, Sodium-Glucose Cotransporter 2 Inhibitor and Statins on the Kidney in Insulin-Resistant Rats
 15. Nichakorn Pengpol, Ph.D., Chair of the Doctoral Degree Committee (Physiology)
Topic: The renal consequences in the offspring induced by maternal obesity and the effects of N-acetyl cysteine, metformin and omega 3 in fish oil to protect against renal injury in mice
 16. Prempree Sutthasupha, Ph.D., Chair of the Doctoral Degree Committee (Physiology)
Topic: Effect of Chitosan Oligosaccharide on The Prevention of Kidney Injury in Prediabetic and Diabetic Rats

Special Academic Appointments

2004-Present Graduate School Faculty, Chiang Mai University, Chiang Mai, Thailand

RESEARCH GRANT SUPPORT

30/05/2017-29/05/2020 Thailand Research Fund, Thailand. "The mechanisms of the new antidiabetic drug SGLT2 inhibitor on the improvement of insulin resistance, renal glucose transporters and renal function in obese-insulin resistant model." (PI)

PREVIOUS GRANT SUPPORT

- 10/2014-09/2015 National Research Council of Thailand, “Renal protection of pinocembrin in gentamicin-induced acute renal failure: drug transporter focusing”. (PI)
- 16/06/2014-15/06/2017 Thailand Research Fund, Thailand. “The effects of statins on cardiac and renal functions in streptozotocin-induced diabetic rats: drug transporter focusing.” (PI)
- 10/2016-09/2017 National Research Council of Thailand, “The effects of probiotic *Lactobacillus paracasei* HP4 and prebiotic xylooligosaccharide on glucose homeostasis and renal function in obese-insulin resistance rats” (PI)

PATENTS

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RESEARCH FIELDS OF INTEREST

1. Renal and endocrine physiology
2. Cellular and molecular mechanisms of epithelial transport
3. Molecular mechanism of renal function in health and disease

PEER REVIEWED ARTICLES

1. Thongnak L, Chatsudthipong V, Kongkaew A, **Lungkaphin A**. Effects of dapagliflozin and statins attenuate renal injury and liver steatosis in high-fat/high-fructose diet-induced insulin resistant rats. *Toxicol Appl Pharmacol*. 2020 Apr 4:114997. doi: 10.1016/j.taap.2020.114997. **(2018: IF 3.585 ISI: Q1)**
2. Pengrattanachot N, Cherngwellng R, Jaikumkao K, Pongchaidecha A, Thongnak L, Swe MT, Chatsudthipong V, **Lungkaphin A**. Atorvastatin attenuates obese-induced kidney injury and impaired renal organic anion transporter 3 function through inhibition of oxidative stress and inflammation. *Biochim Biophys Acta Mol Basis Dis*. 2020 Feb 23:165741. **(2018: IF 4.328 ISI: Q1)**
3. Swe MT, Thongnak LO, Jaikumkao K, Pongchaidecha A, Chatsudthipong V, **Lungkaphin A**. Dapagliflozin attenuates renal gluconeogenic enzyme expression in obese rats. *J Endocrinol*. 2020 Feb 1. pii: JOE-19-0480.R2. doi: 10.1530/JOE-19-0480. **(2018: IF 4.381 ISI: Q1)**
4. Patthawee Mueangkhiao, Penprapa Siviroj, Ratana Sapbamrer, Supakit Khachananda, **Anusorn Lungkaphin**, Mathuramat Seesen, Pittaya Jaikwang, Klintean Wunnapak. Biological variation in kidney injury and kidney function biomarkers

- among farmers in Lamphun province, Thailand Environ Sci Pollut Res (2020).
<https://doi.org/10.1007/s11356-020-07661-3>. (2018; IF 2.914 ISI: Q2)
5. Laongdao Thongnak, Anchalee Pongchaidecha and Anusorn Lungkaphin. Renal Lipid Metabolism and Lipotoxicity in Diabetes. *Am J Med Sci*. 2020;359(2):84–99. (2018; IF 1.962 ISI: Q2)
 6. Swe MT, Thongnak L, Jaikumkao K, Pongchaidecha A, Chatsudthipong V, **Lungkaphin A**. Dapagliflozin not only improves hepatic injury and pancreatic endoplasmic reticulum stress, but also induces hepatic gluconeogenic enzymes expression in obese rats. *Clin Sci (Lond)*. 2019 Dec 12;133(23):2415-2430. doi: 10.1042/CS20190863. (2018; IF 5.237 ISI: Q1)
 7. Norkaew O, Thitisut P, Mahatheeranont S, Pawin B, Sookwong P, Yodpitak S, **Lungkaphin A**. Effect of wall materials on some physicochemical properties and release characteristics of encapsulated black rice anthocyanin microcapsules. *Food Chem*. 2019 Oct 1;294:493-502. doi: 10.1016/j.foodchem.2019.05.086. (2018; IF 5.399 ISI: Q1)
 8. Swe MT, Pongchaidecha A, Chatsudthipong V, Chattipakorn N, **Lungkaphin A**. Molecular signaling mechanisms of renal gluconeogenesis in nondiabetic and diabetic conditions. *J Cell Physiol*. 2019; 234:8134-8151. doi: 10.1002/jcp.27598. (2018; IF 4.522 ISI: Q1)
 9. Wanchai K, Yasom S, Tunapong W, Chunchai T, Eaimworawuthikul S, Thiennimitr P, Chaiyasut C, Pongchaidecha A, Chatsudthipong V, Chattipakorn S, Chattipakorn N, **Lungkaphin A**. Probiotic *Lactobacillus paracasei* HII01 protects rats against obese-insulin resistance-induced kidney injury and impaired renal organic anion transporter 3 function. *Clin Sci (Lond)*. 2018 Jul 31;132(14):1545-1563. doi: 10.1042/CS20180148. (2018; IF 5.237 ISI: Q1)
 10. Jaikumkao K, Pongchaidecha A, Chueakula N, Thongnak LO, Wanchai K, Chatsudthipong V, Chattipakorn N, **Lungkaphin A**. Dapagliflozin, a sodium-glucose co-transporter-2 inhibitor, slows the progression of renal complications through the suppression of renal inflammation, endoplasmic reticulum stress and apoptosis in prediabetic rats. *Diabetes Obes Metab*. 2018 Jun 19. doi: 10.1111/dom.13441 (2018; IF 6.133 ISI: Q1)
 11. Thiennimitr P, Yasom S, Tunapong W, Chunchai T, Wanchai K, Pongchaidecha A, **Lungkaphin A**, Sirilun S, Chaiyasut C, Chattipakorn N, Chattipakorn SC. *Lactobacillus paracasei* HII01, xylooligosaccharides, and synbiotics reduce gut disturbance in obese rats. *Nutrition*. 2018 Mar 20;54:40-47. (2018; IF 3.591 ISI: Q2)
 12. Jaikumkao K, Pongchaidecha A, Chueakula N, Thongnak L, Wanchai K, Chatsudthipong V, Chattipakorn N, **Lungkaphin A**. Renal outcomes with sodium glucose cotransporter 2 (SGLT2) inhibitor, dapagliflozin, in obese insulin-resistant model. *Biochim Biophys Acta. Molecular basis of disease* 2018 Mar 20;1864(6 Pt A):2021-2033. (2018; IF 4.328 ISI: Q1)
 13. Wanchai K, Yasom S, Tunapong W, Chunchai T, Thiennimitr P, Chaiyasut C, Pongchaidecha A, Chatsudthipong V, Chattipakorn S, Chattipakorn N, **Lungkaphin**

- A. Prebiotic prevents impaired kidney and renal Oat3 functions in obese rats. **J Endocrinol.** 2018 Apr;237(1):29-42. doi: 10.1530/JOE-17-0471. (2018; IF 4.381 ISI: Q1)
14. Pratchayasakul W, Thongnak LO, Chattipakorn K, **Lungkaphin A**, Pongchaidecha A, Satjaritanun P, Jaiwongkam T, Kerdphoo S, Chattipakorn SC. Atorvastatin and insulin equally mitigate brain pathology in diabetic rats. **Toxicol Appl Pharmacol.** 2018 Mar 1;342:79-85. (2018; IF 3.585 ISI: Q1)
 15. Nuttawud Chueakula, Krit Jaikumkao, Phatchawan Arjinajarn, Anchalee Pongchaidecha, Varanuj Chatsudthipong, Nipon Chattipakorn, **Anusorn Lungkaphin.** Diacerein alleviates kidney injury through attenuating inflammation and oxidative stress in obese insulin-resistant rats. **Free Radic Biol Med.** 2018 Feb 1;115:146-155. doi: 10.1016/j.freeradbiomed.2017.11.021. Epub 2017 Nov 28. (2018; IF 5.657 ISI: Q1)
 16. Chunchai T, Thunapong W, Yasom S, Wanchai K, Eaimworawuthikul S, Metzler G, **Lungkaphin A**, Pongchaidecha A, Sirilun S, Chaiyasut C, Pratchayasakul W, Thiennimitr P, Chattipakorn N, Chattipakorn SC. Decreased microglial activation through gut-brain axis by prebiotics, probiotics, or synbiotics effectively restored cognitive function in obese-insulin resistant rats. **J Neuroinflammation.** 2018 Jan 9;15(1):11. doi: 10.1186/s12974-018-1055-2. (2018; IF 5.700 ISI: Q1)
 17. Thongnak L, Pongchaidecha A, Jaikumkao K, Chatsudthipong V, Chattipakorn N, **Lungkaphin A.** The additive effects of atorvastatin and insulin on renal function and renal organic anion transporter 3 function in diabetic rats. **Sci Rep.** 2017 Oct 19;7(1):13532. (2018; IF 4.011 ISI: Q1)
 18. Jaikumkao K, Pongchaidecha A, Chatsudthipong V, Chattipakorn SC, Chattipakorn N, **Lungkaphin A.** The roles of sodium-glucose cotransporter 2 inhibitors in preventing kidney injury in diabetes. **Biomed Pharmacother.** 2017 Jul 28;94:176-187. (2018; IF 3.743 ISI: Q1)
 19. Tunapong W, Apaijai N, Yasom S, Tanajak P, Wanchai K, Chunchai T, Kerdphoo S, Eaimworawuthikul S, Thiennimitr P, Pongchaidecha A, **Lungkaphin A**, Pratchayasakul W, Chattipakorn SC, Chattipakorn N. Chronic treatment with prebiotics, probiotics and synbiotics attenuated cardiac dysfunction by improving cardiac mitochondrial dysfunction in male obese insulin-resistant rats. **Eur J Nutr.** 2017 Jun 12. doi: 10.1007/s00394-017-1482-3. (2018; IF 4.449 ISI: Q1)
 20. Arjinajarn P, Chueakula N, Pongchaidecha A, Jaikumkao K, Chatsudthipong V, Mahatheeranont S, Norkaew O, Chattipakorn N, **Lungkaphin A.** Anthocyanin-rich Riceberry bran extract attenuates gentamicin-induced hepatotoxicity by reducing oxidative stress, inflammation and apoptosis in rats. **Biomed Pharmacother.** 2017 May 27;92:412-420. (2018; IF 3.743 ISI: Q1)
 21. Wanchai K, Pongchaidecha A, Chatsudthipong V, Chattipakorn SC, Chattipakorn N, **Lungkaphin A.** Role of Gastrointestinal Microbiota on Kidney Injury and the Obese Condition. **Am J Med Sci.** 2017 Jan;353(1):59-69. (2018; IF 1.962 ISI: Q2)

22. Arjinajarn P, Pongchaidecha A, Chueakula N, Jaikumkao K, Chatsudthipong V, Mahatheeranont S, Norkaew O, Chattipakorn N, **Lungkaphin A**. Riceberry bran extract prevents renal dysfunction and impaired renal organic anion transporter 3 (Oat3) function by modulating the PKC/Nrf2 pathway in gentamicin-induced nephrotoxicity in rats. **Phytomedicine**. 2016 Dec 15;23(14):1753-1763. (2018: IF 4.180 ISI:Q1)
23. Jaikumkao K, Pongchaidecha A, Thongnak LO, Wanchai K, Arjinajarn P, Chatsudthipong V, Chattipakorn N, **Lungkaphin A**. Amelioration of Renal Inflammation, Endoplasmic Reticulum Stress and Apoptosis Underlies the Protective Effect of Low Dosage of Atorvastatin in Gentamicin-Induced Nephrotoxicity. **PLoS One**. 2016 Oct 11;11(10):e0164528. (2018; IF 2.776 ISI Q2)
24. Jaikumkao K, Pongchaidecha A, Chattipakorn N, Chatsudthipong V, Promsan S, Arjinajarn P, **Lungkaphin A**. Atorvastatin improves renal organic anion transporter 3 and renal function in gentamicin-induced nephrotoxicity in rats. **Experimental Physiology** 2016; 101(6):743-53. (2018; IF 2.624 ISI: Q2)
25. Promsan S, Jaikumkao K, Pongchaidecha A, Chattipakorn N, Chatsudthipong V, Arjinajarn P, Pompimon W, **Lungkaphin A**. Pinocembrin attenuates gentamicin-induced nephrotoxicity in rats. **Can J Physiol Pharmacol**. 2016 Aug;94(8):808-18. (2018; IF 2.041 ISI: Q3)
26. Jaiyen, Chaliya; Jutabha, Promsuk; Anzai, Naohiko; **Lungkaphin, Anusorn**; Soodvilai, Sunhapas; Srimaroeng, Chutima Interaction of green tea catechins with renal organic cation transporter 2. **XENOBIOTICA** : JUL 2 2016 : 2016 : 46 : 7641 : 650. (2018; IF 1.902 ISI: Q3)
27. **Anusorn Lungkaphin**, Anchalee Pongchaidecha, Siripong Palee, Phatchawan Arjinajarn, Wilart Pompimon, and Nipon Chattipakorn. Pinocembrin reduces cardiac arrhythmia and infarct size in rats subjected to acute myocardial ischemia/reperfusion **Appl. Physiol. Nutr. Metab**. 2015; 1-7. (2018; IF 3.455 ISI: Q1)
28. Arjinajarn P, Srimaroeng C, Chatsudthipong V, **Lungkaphin A**. Decreased renal organic anion transporter 3 expression in type 1 diabetic rats. *Am J Med Sci* 2014;347(3):221-7. (IF 1.773)
29. Ontawong A, Saowakon N, Vivithanaporn P, Pongchaidecha A, Lailerd N, Amornlerdpison D, **Lungkaphin A**, and Srimaroeng C. Antioxidant and Renoprotective Effects of Spirogyra neglecta (Hassall) Kützing Extract in Experimental Type 2 Diabetic Rats. *Bio Med Research International* 2013; 2013:820786. (IF 2.583)
30. **Lungkaphin A**, Arjinajarn P, Srimaroeng C, Chatsudthipong V. Function and expression of renal organic anion transporters in experimental diabetes in mice. *ScienceAsia* 2012;38:18-23.
31. **Lungkaphin, A.**, Lewchalermwongse. B. and Chatsudthipong, V. (2006) Relative contribution of OAT1 and OAT3 transport activities in isolated perfused rabbit renal proximal tubules. *Biochimica et Biophysica Acta*1758(6):789-95. (IF 5.108)

- 32. **Lungkaphin, A.**, Chatsudthipong, V., Evans, K.K., Groves, C.E., Wright, S.H., Dantzler, W.H (2004) Interaction of the metal chelator, DMPS, with OAT1 and OAT3 in intact isolated rabbit renal proximal tubules. *Am J Physiol Renal Physiol.* 286:F68-F76. (IF 3.164)

- 33. **Pornsinthusate A**, Pongchaidecha A, Vilasdechanon N, Boonnayathap U. Effects of exercise on adrenergic receptor responses of the isolated atria in hypothyroid rats. *Thai J Physiol Sci* 1996;9(1):45.

PEER REVIEWED ABSTRACTS

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CONFERENCE SHORT PAPERS AND ABSTRACTS

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BOOK CHAPTERS

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