

Curriculum Vitae

NARISSARA LAILERD, Ph.D.



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Marital Status Single

EDUCATION

2004 Ph.D. (Physiology), Mahidol University, Bangkok, Thailand
1995 Master of Science (Physiology), Chiang Mai University,
Chiang Mai, Thailand
1990 Bachelor of Science (Nursing and Midwifery), Chiang Mai University,
Chiang Mai, Thailand

PROFESSIONAL APPOINTMENT

1995-2014 Instructor, Department of Physiology, Faculty of Medicine
Chiang Mai University, Chiang Mai, Thailand
2015-present Assistance Professor, Department of Physiology, Faculty of Medicine
Chiang Mai University, Chiang Mai, Thailand

HONORS AND AWARDS

2003 Outstanding Oral Presentation Award at the 32nd Annual Meeting of
the Physiological Society of Thailand, Khonkhan, Thailand

- 2016 Gold medal from EUROINVENT 2016
Name of Invention: Enriched Omega-9 Fish Oil from Hybrid Freshwater Catfish By-product
- 2018 Silver medal from KIWIE 2018, Republic of Korea
The best innovation from FIRI Award, Iran, KIWIE 2018
Name of Invention: New dietary supplement products from cordycepin Extract
- 2018 Gold medal from KIWIE 2018, Republic of Korea
Gold medal and certificate from Republic of Macedonia, KIWIE 2018
Name of Invention: Fah-Talai-Jone tablet for Diabetes Mellitus and Immune stimulation
- 2018 Gold medal from IWIS 2018, Poland
Name of Invention: Freshwater algae, a supplement for protection of metabolic syndrome
- 2020 Gold medal from iCAN 2020, Canada
Name of Invention: ANDRO: Super Boost for Immune System and Alternative Treatment for Diabetes Mellitus
- 2022 รางวัลหนึ่งใรร้อย คนสวนดอก ประจำปี 2565

ORGANIZATION AND PARTICIPATION

- 2003-2010 The American Physiological Society
- 2006-present Thai Physiological Society
- 2006-present Thai Association for Laboratory Animal Science

PRESENTATIONS AT INTERNATIONAL MEETINGS

- April, 2003 Experimental Biology Meeting, San Diego, CA, USA
- Feb, 2004 ASIATOX III, The 3rd International Congress of Asian Society of Toxicology, Bangkok-Chiang Mai, Thailand
- October, 2005 The 1st International Conference on Natural Products for Health and Beauty: From Local Wisdom to Global Marketplace. Maha Sarakham, Thailand
- Jun, 2007 EUROPACE 2007, Lisbon, Portugal
- October, 2009 The 19th International Congress on Nutrition conference (ICN2009), Bangkok, Thailand

- July, 2012 The 8th Asia-Pacific Conference on Algal Biotechnology and 1st International Conference on Coastal Biotechnology. July 9-12, 2012. Adelaide, Australia
- June, 2013 The 8th Asia Pacific Conference on Clinical Nutrition, June 9-12, 2013. Tokyo, Japan
- December, 2015 International Graduate Research Conference (iGRC 2015), December 11, 2015. The Empress Hotel, Chiang Mai, Thailand
- January, 2018 Innovation of Functional Foods in Asia (IFFA 2018), January 22-24, 2018. University of Phayao, Phayao, Thailand
- March, 2019 The 9th Annual Meeting of the Physiological Society of Japan (FAOPS2019), March 28-31, 2019, Kobe, Japan
- December, 2019 The 7th International Conference on Food Factors (ICoFF2019). December 1-5, 2019, Kobe, Japan
- December, 2019 The 2nd TRPNEP. December 11, 2019. NAY PYI TAW, Myanmar

PRESENTATIONS AT NATIONAL MEETINGS

- May, 1994 The 22nd Annual Meeting of the Physiological Society of Thailand, Khonkhan, Thailand
- May, 2003 The 32nd Annual Meeting of the Physiological Society of Thailand, Khonkhan, Thailand
- April, 2005 The 35th Annual Meeting of the Physiological Society of Thailand, Chiang Mai, Thailand
- October, 2007 The Annual Meeting of the Thailand Research Fund (TRF), Chonburi, Thailand
- May, 2008 The 37th Annual Meeting of the Physiological Society of Thailand, Chonburi, Thailand
- Oct, 2008 The Annual Meeting of the Thailand Research Fund (TRF), Petchaburi, Thailand
- April, 2009 The 38th Annual Meeting of the Physiological Society of Thailand, Petchaboon, Thailand
- March, 2011 The 5th National Conference of Algal and Plankton, Songkha, Thailand

- May, 2013 The Second Thailand National Research University Summit (NRU Summit II), Queen Sirikit National Convention Center, 7-8 May 2013. Bangkok, Thailand
- July, 2014 The 3rd Thailand National Research University Summit (NRU Summit III), Bangkok Convention Centre, Centara Grand at Central World, 31st of July and 1st of August 2014. Bangkok, Thailand
- August, 2019 Thailand Science Research and Innovation Congress (TSRI 2019), August 8-9, 2019, Royal Paragon Hall, Bangkok, Thailand

INVITED LECTURES AT INTERNATIONAL MEETINGS

- October, 2005 Clinical effects of Stevioside : Effects on glucose metabolism and skeletal muscle glucose transport activity in type 2 diabetic rats. The 1st International Conference on Natural Products for Health and Beauty: From Local Wisdom to Global Marketplace. Maha Sarakham, Thailand

INVITED LECTURES AT NATIONAL MEETINGS

- 2008 *Experimental Diabetes Mellitus*, Department of Biomedical Sciences, Faculty of Medicine, Prince of Songkla University, Songkla, Thailand

ACADEMIC ACTIVITIES

Graduate Student's Dissertation Committees

1. Warasinee Boonprasert B.S., Member of the Master Degree Committee
Topic: Effects of Curcuminoids on Insulin Resistance and Cardiac Autonomic Status in Obese Rats (Physiology)
2. Sivaporn Sivasinprasasn B.S., Member of the Master Degree Committee
Topic: Plasma Urocortins Level in Acute Myocardial Infarction Patients (Physiology)
3. Sopida Apichai B.S., Thesis Advisory Committee (Advisor) and Member of the Master Degree Committee
Topic: Effects of Curcuminoids Supplement on Insulin-Signaling Cascade in Skeletal Muscle of High-Fat Induced Obese Rats (Physiology)

4. Waranya Keapai B.S., Thesis Advisory Committee (Advisor) and Member of the Master Degree Committee
Topic: Effects of the Aqueous Extract of *Gynostemma pentaphyllum* (Thunb.) Makino on Insulin Resistance in High-Fat Diet with Streptozotocin Induced Type 2 Diabetic Rats (Physiology)
5. Atcharaporn Ontawong B.S., Member of the Master Degree Committee
Topic: Effect of *Spirogyra neglecta* Extract on Renal Organic Anion Transporter 1 and 3 Function in Type 2 Diabetic Rats (Physiology)
6. Nattinee Jitprawet, B.S., Thesis Advisory Committee (Advisor) and Member of the Master Degree Committee
Topic: Effect of *Spirogyra neglecta* (HASSALL) KÜTZING Extract on Skeletal Insulin Resistance in Type 2 Diabetic Rats (Physiology)
7. Winthana Kusirisin, Ph.D., Member of the Doctorate Degree Committee
Topic: Effects of Some Thai Indigenous Plants and Biologically Fermented Indigenous Plants on Diabetic Oxidative Stress (Pharmacology)
8. Somchai Sriwiriyan, Ph.D., Member of the Doctorate Degree Committee
Topic: Effect of Pure Compound from *Piper nigrum* L. on Breast Cancer Cell Lines and Animals (Biomedical Sciences)
9. Sasimar Woraharn, Ph.D., Member of the Doctorate Degree Committee
Topic: Effects of Fermented *Hericium erinaceus* Juice Containing Gamma-Aminobutyric Acid Using Lactic Acid Bacteria and Probiotic on Streptozotocin Induced-Diabetic Rats (Pharmacology)
10. Sopida Apichai, Ph.D., Thesis Advisory Committee (Advisor) and Member of the Doctorate Degree Committee
Topic: Effects of Purple Rice Bran Genotype Kum Doi Saket (*Oryza sativa* L. *indica*) on Skeletal Glucose Transport System in Diabetic Rats (Physiology)
11. Waranya Keapai, Ph.D., Thesis Advisory Committee (Advisor) and Member of the Doctorate Degree Committee
Topic: Anti-diabetic Potentials of Fish oil from Hybrid Catfish (*Pangasianodon hypophthalmus* x *Pangasius larnaudii*) in Type 2 Diabetic Rat Model (Physiology)
12. Parichart Toejing B.S., Thesis Advisory Committee (Advisor) and Member of the Master Degree Committee

Topic: Effects of Purple Rice Hull Extract on Hepatic Gluconeogenesis in Experimental Diabetic Rats (Physiology)

13. Ei Ei Hlaing, Ph.D., Thesis Advisory Committee and Member of the Doctorate Degree Committee
Topic: Differential Proteomics Analysis of Proteins Associated with Antidiabetic Activity of Purple Rice Bran in Type II Diabetic Rats (Biochemistry)
14. Aman Tedasen, Ph.D., Thesis Advisory Committee and Member of the Doctorate Degree Committee
Topic: The effects of the 5'-desmethoxyatein in breast cancer cell lines and tumorigenesis rats (Biomedical Sciences)
15. Jannarong Intakhad B.S., Thesis Advisory Committee (Advisor) and Member of the Master Degree Committee
Topic: Protective Effects of Purple Rice Husk Extract on Oxidative Stress - Induced Pancreatic Injury in Hyperglycemic Wistar Rats (Physiology)
16. Nuntawat Khat-Udomkiri, Thesis Advisory Committee and Member of the Doctorate Degree Committee
Topic: Prebiotic Property of Xylooligosaccharide Producing from Rice Husk and Effects on High-Fat Diet and Streptozotocin Induced Type 2 Diabetic Rats (Pharmacology)
17. Uten Jamjai, Thesis Advisory Committee and Member of the Doctorate Degree Committee
Topic: Value Added of Coconut Oil as Cosmeceutical and Pharmaceutical Products (Interdisciplinary Agriculture Program)
18. Rattanaporn Janthip, Thesis Advisory Committee and Member of the Doctorate Degree Committee
Topic: Value Added of the freshwater algae as jelly functional food (Interdisciplinary Agriculture Program)
19. Parichart Toejing, Ph.D., Thesis Advisory Committee (Advisor) and Member of the Doctorat Degree Committee
Topic: Evaluating the Effects of Probiotic *Lactobacillus paracasei* HII01 on Modulating Gut Microbes and Anti-Diabetic Effects in Type 2 Diabetes Mellitus. (Physiology)

20. Thiri Wai Linn, Ph.D., Thesis Advisory Committee (Advisor) and Member of the Doctorat Degree Committee
 Topic: (Investigation of the Anti-hyperglycemic Effect of *Corissa corondas* Linn. Ripe Fruit Extract and Its Underlying Mechanisms in Experimental Type 2 Diabetes Mellitus Rats (Physiology))

Special Academic Appointments

- 2004-present Graduate School Faculty, Chiang Mai University, Chiang Mai, Thailand
- 2012-present Special Instructor, Department of Biomedical Sciences, Faculty of Medicine, Prince of Songkhla University, Songkhla, Thailand

RESEARCH GRANT SUPPORT

- 2016-2017 Thailand Science Research and Innovation (TSRI) (PI)
 (Title: Evaluating the possible impacts of probiotics on promoting the growth of gut beneficial microbes and prevention of diabetes related symptoms)
- 2017-2018 National Research Council of Thailand (PI)
 (Title: Development of formulations containing xylooligosaccharides from rice husk and *Lactobacillus* spp. and its effects on glucose homeostasis in type 2 diabetes mellitus rat model)
- 2018-2019 National Research Council of Thailand (PI)
 (Title: Effect of xylooligosaccharide from rice husk on gut barrier function in normal, inflammation, and induced intestinal permeability cell lines)
- 2019-2020 National Research Council of Thailand (PI)
 (Title: Evaluating the impacts of probiotics on promoting the growth of gut beneficial microbes and antidiabetic effects in type 2 diabetic patients)
- 2021-2022 The Faculty of Medicine Endowment Fund for Research. Faculty of Medicine, Chiang Mai University (PI)
 (Title: Investigation of the anti-hyperglycemic effect of *Carissa carandas* Linn. ripe fruit extract and its underlying mechanisms in experimental type 2 diabetes mellitus rats)

PREVIOUS GRANT SUPPORT

1994-1996	China Medical Board, Chiang Mai University (Co-PI)
2003-2004	Faculty of Graduate Studies, Mahidol University, Thailand. (PI)
2006-2008	The Faculty of Medicine Endowment Fund for Research. Faculty of Medicine, Chiang Mai University (PI)
2006-2008	The Thailand Research Fund (TRF) Grant. (PI)
2006-2008	The Faculty of Medicine Endowment Fund for Research. Faculty of Medicine, Chiang Mai University (PI)
2006-2007	Biomedical Engineering Program Grant. Faculty of Engineer, Chiang Mai University (PI,)
2006-2007	Biomedical Engineering Program Grant. Faculty of Engineer, Chiang Mai University (Co-PI)
2006-2007	Biomedical Engineering Program Grant. Faculty of Engineer, Chiang Mai University (Co-PI)
2008-2010	กองทุนภูมิปัญญาแพทย์แผนไทย , สถาบันการแพทย์แผนไทย (PI)
2008-2010	The Thailand Research Fund (TRF) Grant. (Co-PI)
2009-2010	The Thailand Research Fund (TRF) Grant. (Co-PI)
2010-2011	National Research Council of Thailand (PI) (Title: Antihyperglycemic effects and its related complications of <i>Spirogyra neglecta</i> in Type 2 Diabetic rats)
2011-2013	National Research University Project (PI) (Title : Antihyperglycemic and antioxidant properties of rice purple extract in type 2 diabetic rat)
2013-2014	The Faculty of Medicine Endowment Fund for Research. Faculty of Medicine, Chiang Mai University (Co-PI)
2013-2014	National Research Council of Thailand (PI) (Title: Effect of fish oil from hybrid catfish on antihyperglycemic and antioxidant activities in Type 2 Diabetic rats)
2014-2015	National Research University Project (PI) (Title : Antihyperglycemic and Antioxidant Potentials of Purple Rice Hull Extract in Type 2 Diabetic Rats)
2015-2016	The Faculty of Medicine Endowment Fund for Research. Faculty of Medicine, Chiang Mai University (PI) (Title: Evaluating the possible impacts of long-term supplementation of fish oil enriched monounsaturated fatty acids on antihyperglycemic and antihyperlipidemic efficacy of metformin in type II diabetic rats)

PEER REVIEWED ARTICLES

1. Wai Linn T, Kobroob A, Ngernjan M, Amornlerdpison D, **Lailerd N**, Wongmekiat O. Crocodile Oil Disrupts Mitochondrial Homeostasis and Exacerbates Diabetic Kidney Injury in Spontaneously Diabetic Torii Rats. *Biomolecules* 2022, 12, 1068. (IF 4.879, Q2)
2. Ngernjan M, Ontawong A, Lailerd N, Mengamphan K, Sarapirom S, Amornlerdpison D. Crocodile Oil Modulates Inflammation and Immune Responses in LPS-stimulated RAW 264.7 Macrophages. *Molecules* 2022, 27, 3784. (IF 4.411, Q2)
3. Siripun P, Chaiyasut C* , **Lailerd N** , Makhamrueang N , Kaewarsar E, Sirilun S.* A Pilot Study of whether or Not Vegetable and Fruit Juice Containing *Lactobacillus paracasei* Lowers Blood Lipid Levels and Oxidative Stress Markers in Thai Patients with Dyslipidemia: A Randomized Controlled Clinical Trial. *Appl. Sci.* 2022, 12, 4913. (IF 2.838, Q2)
4. Chaiyasut C, Sivamaruthi BS, **Lailerd N**, Sirilun S*, Khongtan S, Fukngoen P, Peerajan S, Saelee M, Chaiyasut K, Kesika P, Sittiprapaporn P*. Probiotics Supplementation Improves Intestinal Permeability, Obesity Index and Metabolic Biomarkers in Elderly Thai Subjects: A Randomized Controlled Trial. *Foods* 2022, 11 (3), 268. (IF 4.350, Q2)
5. Yoojam S, Ontawong A, **Lailerd N**, Mengamphan K, Amornlerdpison D. The Enhancing Immune Response and Anti-Inflammatory Effects of *Caulerpa lentillifera* Extract in RAW 264.7 Cells. *Molecules* 2021; 26; 5734. (IF 4.411, Q2)
6. Wongmekiat O*, **Lailerd N**, Kobroob A, Peerapanyasut W. Protective Effects of Purple Rice Husk against Diabetic Nephropathy by Modulating PGC-1 α /SIRT3/SOD2 Signaling and Maintaining Mitochondrial Redox Equilibrium in Rats. *Biomolecules* 2021; 11, 1224. (IF 4.879, Q2)
7. Tongmee B, Ontawong A, **Lailerd N**, Mengamphan K, Amornlerdpison D. Anti-inflammatory Effects and Enhancing Immune Response of Freshwater Hybrid Catfish oil in RAW264.7 cells. *Exp Ther Med* 2021; 22: 1223. (IF 2.447, Q2)
8. Toejing P, Khampithum N, Sirilun S, Chaiyasut C, **Lailerd N**. Influence of *Lactobacillus paracasei* HII01 Supplementation on Glycemia and Inflammatory Biomarkers in Type 2 Diabetes: A Randomized Clinical Trial. *Foods* 2021;10(7),1455. (IF 4.35, Q2)
9. Toejing P, Khat-udomkiri N, Intakhad J, Sirilun S, Chaiyasut C, **Lailerd N**. Putative Mechanisms Responsible for the Antihyperglycemic Action of *Lactobacillus paracasei* HII01 in Experimental Type 2 Diabetic Rats. *Nutrients* 2020;12:3015. (IF 4.546, Q1)
10. Tedasen A, Dokduang S, Sukpondma Y, **Lailerd N**, Madla S, Sriwiriyan S, Rattanaburee T, Tipmanee V, Graidist P. (-)-Kusunokinin inhibits breast cancer in N-nitrosomethylurea-induced mammary tumor rats. *Eur J Pharmacol* 2020;882;173311. (IF 3.263, Q2)

11. Janthip R, **Lailerd N**, Wangchareon W, Kriangsak Mengumphan K, Amornlerdpison D. Effects of Rhizoclonium hieroglyphicum and Spirogyra neglecta combined freshwater algal extract on blood glucose, lipids and oxidative markers in diabetic rats. *Maejo Int. J. Sci. Technol* 2020;14(02):184-194. (IF 0.507, Q4)
12. Jamjai U, Pongpaibul Y, **Lailerd N**, Amornlerdpison D. Antioxidant, anti-tyrosinase and anti-collagenase activities of virgin coconut oil and stability of its cream. *Maejo Int. J. Sci. Technol* 2020;14(02):166-176. (IF 0.507, Q4)
13. Khat-udomkiri N, Toejing P, Sirilun S, Chaiyasut C, **Lailerd N**. Anti-Hyperglycemic Effect of Rice Husk Derived Xylooligosaccharides in High-Fat Diet Fed and Low-dose Streptozotocin-Induced Type 2 Diabetic Rat Model. *Food Sci Nutr* 2019;8(1):428-444. (IF 1.797, Q3)
14. Khat-udomkiri N, Sivamaruthi BS, Sirilun S, **Lailerd N**, Peerajan S, Chaiyasut C. Optimization of alkaline pretreatment and enzymatic hydrolysis for the extraction of xylooligosaccharide from rice husk. *AMB Express* 2018;8:115. (IF 2.659, Q3)
15. Chaiyasut C, Woraharn S, Sivamaruthi BS, **Lailerd N**, Kesika P, Peerajan S. Lactobacillus fermentum HP3-Mediated Fermented Hericium erinaceus Juice as a Health Promoting Food Supplement to Manage Diabetes Mellitus. *J Evid Based Integr Med* 2018;23:1-9.
16. Chankaew W, Amornlerdpisan D, **Lailerd N** and Seangkaew J. Toxicological, Phytochemical and Antioxidant Activity Evaluation of *Nemalionopsis shawii* Skuja from Thailand. *Int J Agri Tech* 2017;13(7.3):2529-2537.
17. Hlaing E.E, Piamrojanaphat P, **Lailerd N**, Phaonakrop N, Roytrakul S. Anti-Diabetic Activity and Metabolic Changes in Purple Rice Bran Supplement Type 2 Diabetic Rats by Proteomics. *Int J Pharmacogn Phytochem Res* 2017;9(3):428-436. (IF 1.279)
18. Noosud J, **Lailerd N**, Kayan A, Boonkaewwan C. In vitro and in vivo assessment of inhibitory effect of stevioside on pro-inflammatory cytokines. *Avicenna J Phytomed* 2017;7(2):101-107.
19. Chaiyasut C, Sivamaruthi B S, Pengkumsri N, Keapai W, Kesika P, Saelee M, Tojing P, Sirilun S, Chaiyasut K, Peerajan S, **Lailerd N**. Germinated Thai Black Rice Extract Protects Experimental Diabetic Rats from Oxidative Stress and Other Diabetes-Related Consequences. *Pharmaceuticals* 2016;10(1). (IF 4.286, Q1)
20. Keapai W, Apichai S, Amornlerdpison D, **Lailerd N**. Evaluation of fish oil-rich in MUFAs for anti-diabetic and anti-inflammation potential in experimental type 2 diabetic rats. *Korean J Physiol Pharmacol* 2016;20(6):581-593. (IF 1.905, Q3)
21. Sriwiriyanjan S, Tedsen A, **Lailerd N**, Boonyaphiphat P, Nitiruangjarat A, Yan D, Graidist P. Anti-cancer and cancer preventive effects of a piperine free *Piper nigrum*

- extract on N-nitrosomethylurea induced mammary tumorigenesis in rats. *Cancer Prev Res (Phila)* 2016;9(1):74-82. (IF 3.935, Q2)
22. Woraharn S, **Lailerd N**, Sivamaruthi BS, Wangcharoen W, Peerajan S, Sirisattha S, Chaiyasut C. Development of fermented *Hericium erinaceus* juice with high content of L-glutamine and L-glutamic acid. *Int J Food Sci Technol* 2015; (IF 2.773, Q2)
 23. Woraharn S, **Lailerd N**, Sivamaruthi B S, Wangcharoen W, Sirisattha S, Peerajan S, Chaiyasut C. Evaluation of factors that influence the L-glutamic and α -aminobutyric acid production during *Hericium erinaceus* fermentation by lactic acid bacteria. *J Food* 2015;
 24. Woraharn S, **Lailerd N**, Sivamaruthi BS, Wangcharoen W, Peerajan S, Sirisattha S, Chaiyasut C. Screening and kinetics of glutaminase and glutamate decarboxylase producing lactic acid bacteria from fermented Thai foods. *Food Sci Technol Campinas* 2014.; 34(4): 793-799. (IF 1.891, Q3)
 25. Ontawong A, Saowakon N, Vivithanaporn P, Pongchaidecha A, **Lailerd N**, Amornlerdpison D, Lungkaphin A, Srimaroeng C. Antioxidant and Renoprotective Effects of *Spirogyra neglecta* (Hassall) Kützing Extract in Experimental Type 2 Diabetic Rats. *Biomed Res Int* 2013;820786. (IF 2.858, Q3)
 26. Apichai S, Pongchaidecha A, Kaeapai W, Jitprawet N and **Lailerd N**. Beneficial Effects of Thai Purple Sticky Rice Supplement in Streptozotocin Induced Diabetic Rats. *CMU J Nat Sci* 2012;11(1):371-381.
 27. Chaiyasut C, Kusirisin W, **Lailerd N**, Lertrakarnnon P, Suttajit M, Srichairatanakool S. Effects of phenolic compounds of fermented thai indigenous plants on oxidative stress in streptozotocin-induced diabetic rats. *Evid Based Complement Alternat Med* 2011;2011:749307. (IF 1.813)
 28. Thephinlap C, Phisalaphong C, **Lailerd N**, Chattipakorn N, Winichagoon P, Vadolus J, Fucharoen S, Porter JB, Srichairatanakool S. Reversal of cardiac iron loading and dysfunction in thalassemic mice by curcuminoids. *Med Chem*. 2011 Jan;7(1):62-9. (IF 2.764, Q3)
 29. Phrommintikul A, Sivasinprasasn S, **Lailerd N**, Chattipakorn S, Kuanprasert S, Chattipakorn N. Plasma urocortin in acute myocardial infarction patients. *Eur J Clin Invest* 2010;40(10):874-82. (IF 3.481, Q1)
 30. Pongchaidecha A, **Lailerd N**, Boonprasert W, Chattipakorn N. Effects of curcuminoids supplement on cardiac autonomic status in high-fat-induced obese rats. *Nutrition* 2009;22. (IF 4.118, Q2)
 31. Kusirisin W, Srichairatanakool S, Lertrakarnnon P, **Lailerd N**, Suttajit M, Jaikang C, Chaiyasut C. Antioxidative activity, polyphenolic content and anti-glycation effect of

some Thai medicinal plants traditionally used in diabetic patients. *Med Chem* 2009;5(2):139-147. (IF 2.764, Q3)

32. Kanlop N, Shinlapawittayatorn K, Sungnoon R, Chattipakorn S, **Lailerd N**, Chattipakorn N. Sildenafil citrate on the inducibility of ventricular fibrillation and upper limit of vulnerability in swine. *Med Sci Monit* 2008;14(10): BR205-209.
33. Boonprasert P, **Lailerd N**, Chattipakorn N. Urocortins in heart failure and ischemic heart disease. *Int J Cardiol* 2008;127(3):307-12. (IF 3.804, Q2)
34. Sloniger JA, Saengsirisuwan V, Diehl CJ, Dokken BB, **Lailerd N**, Lemieux AM, Kim JS, Henriksen EJ. Defective Insulin Signaling in Skeletal Muscle of the Hypertensive TG (mREN2)27 Rat. *Am J Physiol Endocrinol Metab* 2005;288(6):E1074-81. (IF 4.209, Q1)
35. **Lailerd N**, Saengsirisuwan V, Sloniger JA, Toskulkao C, Henriksen EJ. Effects of stevioside on glucose transport activity in insulin-sensitive and insulin-resistant rat skeletal muscle. *Metabolism* 2004;53(1):101-107. (IF 6.026, Q1)
36. **Lailerd N**, Pongchaidecha A, Boonnayathap U, Chaiwan B, Mattayabun S. Effects of exercise and diabetic condition on gastrointestinal transit and glucose homeostasis in rats. *Thai J Physiol Sci* 1996;9(1):45.

PEER REVIEWED ABSTRACTS

1. Wai Linn T, Lailerd M, Toejing P, Imsumran Bonness A, Wongmekiat O, **Lailerd N**. *Carissa carandas* Fruit Extract Exerts Anti-Diabetic Potential through Attenuation of the Hepatic and Skeletal Muscle Insulin Resistance. International Conference and Exhibition on Pharmaceutical Sciences and Technology 2021, 23-24 June 2021, Bangkok, Thailand.
2. Toejing P, Khat-udomkiri N, Sirilun S, Chaiyasut C, **Lailerd N**. Evaluation of Anti-Hyperglycemic Efficacy of *Lactobacillus paracasei* HII01 in Type 2 Diabetic Rat Model. The 9th Annual Meeting of the Physiological Society of Japan (FAOPS2019), 28-31 March 2019, Kobe, Japan.
3. Khat-udomkiri N, Toejing P, Sirilun S, Chaiyasut C, **Lailerd N**. Anti-Hyperglycemic Effect of Rice Husk Derived Xylooligosaccharides in High-Fat Diet Fed Low-Dose Streptozotocin-Induced Type 2 Diabetic Rat Model. The 9th Annual Meeting of the Physiological Society of Japan (FAOPS2019), 28-31 March 2019, Kobe, Japan.
4. Wongmekiat O, **Lailerd N**, Kobroob A, Peerapanyasut W. PROTECTIVE POTENTIAL OF PURPLE RICE HUSK EXTRACTS AGAINST DIABETIC

- NEPHROPATHY. The 1st Innovation of Functional Foods in Asia (IFFA) Functional Foods: Trends in Research and Markets. Phayao, Thailand, January 22-24, 2018.
5. Khat-udomkiri N, Chaivasut C, Sirilun S, **Lailerd N**. Xylooligosaccharides from Rice Husk Improves Glycemia in High-Fat Diet and Streptozotocin Induced Type 2 Diabetic Rat Model. The 1st Innovation of Functional Foods in Asia (IFFA) Functional Foods: Trends in Research and Markets. Phayao, Thailand, January 22-24, 2018.
 6. Toejing P, Intakhad J, Sirilun S, Chaiyasut S, Lailerd N. Supplementation of *Lactobacillus paracasei* HII01 attenuates hyperglycemia and glucose intolerance in type 2 diabetic rat model. The 1st Innovation of Functional Foods in Asia (IFFA) Functional Foods: Trends in Research and Markets. Phayao, Thailand, January 22-24, 2018.
 7. Intakhad J, Toejing P, Keapai W, Wongmekiat O, **Lailerd N**. Purple rice husk extract attenuates metabolic alterations in experimental diabetic rats via its protection on the pancreatic tissues. The 44th Annual Meeting of the Physiological Society of Thailand, Chiang Mai, Thailand, December 2017.
 8. Intakhad J, Toejing P, Keapai W, Wongmekiat O, Wongpumchai R, **Lailerd N**. Purple rice husk extract ameliorates oxidative stress in pancreatic tissue of type 2 diabetic rats. The 6th ASEAN Plus Three Graduate Research Congress, Chiang Mai, Thailand, February 2017.
 9. Apichai S, Pongchaidecha A, Karladee D, Srimaroeng C, Lungkaphin A, Wongpumchai R, Amornlerdpison D, **Lailerd N**. Antihyperglycemic and antioxidant properties of purple rice and purple rice extract in diabetic rat. The Third Thailand National Research University Summit (NRU Summit III), Centara Grand at Central World, Bangkok, July 31-August 1, 2014. Bangkok, Thailand.
 10. Keapai W, Apichai S, Pongchaidecha A, Amornlerdpison D, **Lailerd N**. Evaluation of anti-diabetic efficacy of fish oil from a hybrid catfish (*Pangasianodon hypophthalmus* x *Pangasius bocourti*) in high-fat diet plus streptozotocin (STZ) induced type 2 diabetic rats. Burapha University International Conference 2014, Burapha University, Thailand, July 3-4, 2014.
 11. Keapai W, Pongchaidecha A, Apichai S, Amornlerdpison D, **Lailerd N**. Effect of omega 3-rich fish oil on *in vitro* glucose uptake by rat diaphragm. The 3rd International Conference on International Relations and Development (ICIRD 2013), Chiang Mai, Thailand, August 8-10, 2013.

12. Apichai S, Pongchaidecha A, Kaeapai W, Jitprawet N, **Lailerd N**. Evaluation of Anti-diabetic Efficacy of Thai Purple Sticky Rice in High-Fat Diet plus Streptozotocin (STZ) Induced Type 2 Diabetic Rats. The 3rd International Conference on International Relations and Development (ICIRD 2013), Chiang Mai, Thailand, August 8-10, 2013.
13. **Lailerd N**, Wongpoonchai R, Apichai S, Keapai W, Pongchaidacha A. Modulation of Glucose Transport System in Rat Diaphragm by Thai Purple-Rice Bran. The 8th Asia Pacific Conference on Clinical Nutrition. Tokyo, Japan, 9-12 June 2013.
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BOOK CHAPTERS

1. Dietary Interventions in Liver Disease Chapter 25 "Purple Rice Bran Improves Hepatic Insulin Signaling via Activation of Akt and Stabilization of IGF in Diabetic Rats" Foods, Nutrients, and Dietary Supplements
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RESEARCH FIELDS OF INTEREST

1. Diabetes Mellitus
2. Metabolic syndrome
3. Nutrition and Metabolism
4. Molecular physiology
5. Medical plants