Curriculum Vitae

KREKWIT SHINLAPAWITTAYATORN, M.D., Ph.D.

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EDUCATION

2006-2011	Ph.D. (Physiology and Biophysics), Department of Physiology and Biophysics, Case Western Reserve University, Cleveland, Ohio, USA
2004	Doctor of Medicine (M.D.), Chiang Mai University, Chiang Mai, Thailand

PROFESSIONAL APPOINTMENT

2017-Present	Associate Professor, Department of Physiology, School of Medicine, Chiang Mai University, Chiang Mai, Thailand

2015-2017	Assistant Professor, Department of Physiology, School of Medicine, Chiang Mai University, Chiang Mai, Thailand
2015-Present	Head of Cardiac Catheterization & Electrophysiology Laboratory, Cardiac Electrophysiology Research and Training Center, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2014-Present	Staff, Cardiac Electrophysiology Research and Training Center, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2013-Present	Assistant to the Chair for Research Affairs, Department of Physiology, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2004-Present	Staff, Cardiac Electrophysiology Research and Training Center, Department of Physiology, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2004-2005	Staff, Cardiac Electrophysiology Unit, Department of Physiology, School of Medicine, Chiang Mai University, Chiang Mai, Thailand

HONORS AND AWARDS

2021	*Thailand Science Research and Innovation-Chiang Mai University (Fundamental Fund)*, National Research Council of Thailand, Bangkok, Thailand
2021	*The Royal Golden Jubilee Fellowship Award for PhD Advisor*, Thailand Research Fund, Bangkok, Thailand
2020-2023	*NRCT Research Scholar* (เมธีวิจัย วช.), National Research Council of Thailand, Bangkok, Thailand
2019-2024	*NSTDA Research Chair*, the National Science and Technology Development Agency (NSTDA), Bangkok, Thailand (PI: Prof. Dr. Nipon Chattipakorn)
2018	*The Royal Golden Jubilee Fellowship Award for PhD Advisor*, Thailand Research Fund, Bangkok, Thailand
2017	*Faculty with the Highest Citations of the Year 2016 Award*, Faculty of Medicine, Chiang Mai University, Thailand
2017	*TRF-OHEC-SCOPUS Young Researcher Award in Health Science*, The Thailand Research Fund, Bangkok, Thailand
2016	*Gold Elephant Award for Best Young Research Scientist in Medical Science*, Chiang Mai University, Chiang Mai, Thailand
2015-2018	*TRF Research Scholar* (เมธีวิจัย สกว.), The Thailand Research Fund, Bangkok, Thailand

2014-2019	*NSTDA Research Chair*, the National Science and Technology Development Agency (NSTDA), Bangkok, Thailand (PI: Prof. Dr. Nipon Chattipakorn)
2014	*Outstanding Research Presentation Award*, the 14th Annual Meeting of Thailand Research Fund (TRF), Entitled "New Researchers Meet TRF Senior Scholars", Pattaya, Thailand
2014	*Suandok's Value Award (One in One Hundred Project)*, Chiang Mai Medical School, Chiang Mai, Thailand (โครงการหนึ่งในร้อย: รางวัลค่านิยมคนสวนดอก)
2014	*Young Investigator Award (Physiology, Pharmacology and Pathology, Second Place Winner)*, American College of Cardiology (ACC), Washington, DC, USA
2013	*Chiang Mai University Young Researcher Fund*, Chiang Mai University, Chiang Mai, Thailand
2012	*Outstanding TRF Research of the Year 2012*, the Thailand Research Fund, Bangkok, Thailand (PI: Prof. Dr. Nipon Chattipakorn)
2012	*First Place of the Faculty Oral Presentation Competition (3rd CMU Research Award)*, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2012-2015	*Anandhamahidol Supporting Scholar Award*, Anandhamahidol Foundation, Bangkok, Thailand
2012	*Faculty Achievement Award*, Cardiac Electrophysiology Research and Training Center, Chiang Mai, Thailand
2012-2014	*TRF-CHE Research Grant for New Scholar*, the Thailand Research Fund, Bangkok, Thailand
2012	*Doctoral Excellence Award (Physiology and Biophysics)*, the Graduate and Postdoctoral Awards Ceremony, Case Western Reserve University, Cleveland, Ohio, USA
2011	*Finalist of Student Research Achievement Award (Category: Membrane Biophysics)*, 55nd Annual Meeting of the Biophysical Society, Baltimore, Maryland, USA
2009	*First Place Graduate Student Poster Presentation (Department Annual Retreat)*, Department of Physiology and Biophysics, Case Western Reserve University, Cleveland, Ohio, USA
2009	*First Place of the Trainee's Poster Presentation Competition (Research Festival)*, MetroHealth Medical Center, Case Western Reserve University, Cleveland, Ohio, USA
2008	*Outstanding Research Scientist in Medical Science*, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2008	*American Heart Association Pre-Doctorol Fellowship Award* (Percentile Rank: 0.93), American Heart Association, Great Rivers Affiliate, USA
2008	*Finalist of Student Research Achievement Award (Category: Membrane Biophysics)*, 52nd Annual Meeting of the Biophysical Society, Long Beach, California, USA

2007	*First Place of the Trainee's Oral Presentation Competition (Genetic Basis of Cardiovascular Disease)*, MetroHealth Medical Center, Case Western Reserve University, Cleveland, Ohio, USA
2007	*Recknagel Graduate Student Best Academic Record*, Department of Physiology and Biophysics, Case Western Reserve University, Cleveland, Ohio, USA
2006	*The Staff Development Scholarship*, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2006	*The Faculty Development Scholarship*, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2004	*Outstanding Academic Achievement*, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2004	*Participating Scholarship*, The International Brain Research Organization (IBRO) Asia Pacific Associate School of Neuroscience, Chiang Mai, Thailand
2003	*Outstanding Academic Achievement*, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2003	*Top Score in Family Medicine*, Department of Family Medicine, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
1997	*High Stand of Excellence in Outstanding Academic Achievement*, Montfort College, Chiang Mai, Thailand

ROYAL DECORATIONS OF THAILAND

2020	Commander (Third Class) of the Most Exalted Order of the White Elephant เครื่องราชอิสริยาภรณ์อันมีเกียรติยศยิ่งช้างเผือก ชั้นตริตาภรณ์ช้างเผือก (ต.ช.)
2014	Commander (Third Class) of The Most Noble Order of the Crown of Thailand เครื่องราชอิสริยาภรณ์อันมีเกียรติยศยิ่งมงกุฎไทย ชั้นตริตาภรณ์มงกุฎไทย (ต.ม.)
2009	Companion (Fourth Class) of the Most Exalted Order of the White Elephant เครื่องราชอิสริยาภรณ์อันมีเกียรติยศยิ่งช้างเผือก ชั้นจัตุรถาภรณ์ช้างเผือก (จ.ช.)

PROFESSIONAL LICENSES

2004-Present	M.D. (Thailand)

ORGANIZATION AND PARTICIPATION

2020-Present	Asian Pacific Heart Rhythm Society
2009-Present	Heart Rhythm Society
2007-Present	American Biophysical Society
2006-Present	Thai Physiology Society

June 2005	The Meeting of the European Heart Rhythm Association (EUROPACE), Prague, Czech Republic
March 2004	The 1st International Neurologic And Cardiac Electrophysiology Symposium (NCES), Chiang Mai, Thailand
February 2004	The 1st International Brain Research Organization (IBRO) Asia Pacific Associate School of Neuroscience, Chiang Mai, Thailand
2004-Present	Thai Medical Council

PROFESSIONAL ACTIVITIES

Editorial Board

Chiang Mai Medical Journal (2013-Present)

International Journal of Biochemistry & Physiology (2018-Present)

Proceeding to the 1st international Neurological and Cardiac Electrophysiology Symposium (NCES) (2004)

Critical Reviewer of Manuscripts for:

Acta Physiologica, Aging, Aging Research Reviews, American Journal of Cardiovascular and Thoracic Surgery, Anatomy & Physiology: Current Research, Animal Models and Experimental Medicine, Apoptosis, Biology, Biomedicine & Pharmacotherapy, Bioscience Reports, Cells, Cell Death Discovery, Cellular Physiology & Biochemistry, Cardiology Research and Practice, Chemico-Bilogical Interactions, Chronic Diseases and Translational Medicine, Clinics and Research in Hepatology and Gastroenterology, Current Molecular Medicine, Current Pharmaceutical Design, Drug Design, Development and Therapy, Experimental and Therapeutic Medicine, European Journal of Pharmacology, European Journal of Neuroscience, Frontiers in Cardiovascular Medicine, Frontiers in Pharmacology, Frontiers in Veterinary Science, Heart Rhythm, Inflammation Research, International Journal of Biochemistry & Physiology, International Journal of Molecular Sciences, Journal of Advanced Research, Journal of Cellular and Molecular Medicine, Journal of Ethnopharmacology, Journal of Inflammation Research, The International Journal

of Neuroscience, The Journal of Cardiovascular Medicine and Cardiology, Journal of Arrhythmia, Journal of Advanced Research, Journal of Cellular and Molecular Medicine, Journal of Cytology & Histology, Journal of Ethnopharmacology, Journal of Inflammation Research, Khon Kaen University Research Journal, Medicine, Neuropeptides, Oxidative Medicine and Cellular Longevity, Payao University Research Journal, Plos One, SAGE Open Medicine, Scientific Reports, Theranostics, The European Journal of Pharmacology, The International Journal of Neuroscience, The Journal of Cardiovascular Medicine & Cardiology

PRESENTATIONS AT INTERNATIONAL MEETINGS

November 2020	AHA Scientific Sessions 2020, USA
August 2020	ESC Congress, The Digital Experience
March 2019	68th Annual Scientific Sessions, American College of Cardiology (ACC), New Orleans, LA, USA
March 2018	95th Annual Meeting of the Physiological Society of Japan (JSP), Takamatsu, Kagawa, Japan
March 2017	66th Annual Scientific Sessions, American College of Cardiology (ACC), Washington, DC, USA
March 2014	63rd Annual Scientific Sessions, American College of Cardiology (*ACC*), Washington, DC, USA
March 2013	62nd Annual Scientific Sessions, American College of Cardiology (*ACC*), San Francisco, California, USA
May 2011	32nd Annual Scientific Sessions, Heart Rhythm Society, San Francisco, California, USA
March 2011	55th Annual Meeting of the Biophysical Society, Baltimore, Maryland, USA
February 2010	54th Annual Meeting of the Biophysical Society, San Francisco, California, USA
May 2009	30th Annual Scientific Sessions, Heart Rhythm Society, Boston, Massachusetts, USA
February 2009	53nd Annual Meeting of the Biophysical Society, Boston, Massachusetts, USA
February 2008	52nd Annual Meeting of the Biophysical Society, Long Beach, California, USA
March 2006	70th Annual Scientific Sessions, Japanese Circulation Society, Nagoya, Japan

March 2005 — 54th Annual Scientific Sessions, American College of Cardiology (*ACC*), Orlando, Florida, USA

PRESENTATIONS AT NATIONAL MEETINGS

May 2014 — "102nd TRF Seminar Series-From Molecular To Market", Chiang Mai, Thailand

December 2005 — "U.S.-Thai symposium on Biomedical Engineering in Thailand", Bangkok, Thailand

INVITED LECTURES AT INTERNATIONAL MEETINGS

October 26, 2019 — *Vagus Nerve Stimulation: A Promising Cardioprotective Strategy Against Ischemia-Reperfusion Injury*, 12th Asian Pacific Heart Rhythm Society Scientific Session (APHRS), Bangkok, Thailand

October 24, 2019 — *Arrhythmic Disease Modeling*, 12th Asian Pacific Heart Rhythm Society Scientific Session (APHRS), Bangkok, Thailand

February 23, 2013 — *Sodium Channel Polymorphisms and Arrhythmogenic Events: Pro-Arrhythmic or Anti-Arrhythmic,* Asian Pacific Society of Cardiology Congress, Pattaya, Thailand

INVITED LECTURES AT NATIONAL MEETINGS

December 19, 2019 — *Vagus Nerve Stimulation for Heart Diseases: An Example of Basic Research Towards Research Innovation*, 47th Physiological Society of Thailand Annual Meeting, Bangkok, Thailand

July 25, 2014 — *Vagus Nerve Stimulation Exerts Cardioprotection in Acute Myocardial Infarction,* 10th International Neurologic and Cardiac Electrophysiology Symposium (NCES), Chiang Mai, Thailand

October 4, 2013 — *Neuro-Cardiology: The Vagus Nerve Stimulation and Its Effects on Cardiac Functions,* Department of Medical Technology, Faculty of Allied Health Sciences, Naresuan University, Phitsanulok, Thailand

November 28, 2012 — *Molecular and Cardiac Electrophysiology,* Department of Medical Technology, Faculty of Allied Health Sciences, Naresuan University, Phitsanulok, Thailand

July 5, 2012 — *Anatomy and Physiology of Cardiovascular System,* Nursing Services Center, Faculty of Nursing, Chiang Mai University, Chiang Mai, Thailand

June 25, 2012 — *Vagus Nerve Stimulation as a Promising Cardioprotective Strategy Against Ischemia-Reperfusion Injury,* 9th International Neurologic and Cardiac Electrophysiology Symposium (NCES), Chiang Mai, Thailand

January 20, 2012 — *Modulations of Cardiac Sodium Channelopathies by a Common Sodium Channel Polymorphism,* Department of Microbiology, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

December 9, 2011 — *Modulations of Sodium Channel Long QT and Brugada Syndrome Mutations by a Common Sodium Channel Polymorphism,* Department

	of Biochemistry, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
May 4, 2006	*Research and Application in Cardiovascular Diseases: Heart, PDE-5 Inhibitor, and Sudden Cardiac Death,* 35th Annual Scientific Sessions, Thai Physiology Society, Chiang Mai, Thailand
August 17, 2005	*Device Therapy in Sudden Cardiac Death,* Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
February 2, 2005	*Electrocardiogram and Cardiac Arrhythmia*, Faculty of Veterinary Medicine, Chiang Mai University, Chiang Mai, Thailand

ACADEMIC ACTIVITIES

Graduate Student's Dissertation Committees

1. Nattayaporn Apaijai, B.S., Member of the Master Degree Committee
   Topic: Effects of Metformin and Vildagliptin on Cardiac Function in High-Fat Diet Induced Insulin Resistant Rats (Physiology)
2. Hiranya Pintana, B.S., Member of the Master Degree Committee
   Topic: Effects of Metformin and Vildagliptin on Learning and Memory Behaviors and Brain Mitochondrial Functions in High-Fat Diet Induced Insulin Resistant Rats (Physiology)
3. Kittiya Thunsiri, B.Eng., Member of the Master Degree Committee
   Topic: Effects of Vagus Nerve Stimulation on the Ventricular Defibrillation (Biomedical Engineering)
4. Sivaporn Sivasinprasasn, M.S., Member of the Doctorate Degree Committee
   Topic: Effects of Estrogen, Metformin and Vildagliptin on Cardiac Functions in Obese Insulin Resistance and Estrogen-Deprived Rats (Physiology)
5. Wanpitak Pongkan, D.V.M., Member of the Doctorate Degree Committee
   Topic: Effect of Testosterone and Vildagliptin on Cardiac Ischemic and Reperfusion Injury in High-Fat Diet Induced Insulin Resistant Orchiectomized Rats (Physiology)
6. Tharnwimol Inthachai, B.S., Member of the Master Degree Committee
   Topic: Effects of Metformin and Vildagliptin on the Rat's Heart with Chronic Myocardial Infarction (Physiology)
7. Wattana Nuntaphum, B.S., Major Advisor of the Master Degree Committee
   Topic: The Effects of Vagus Nerve Stimulation on the Heart Subjected to Acute Cardiac Ischemia/Reperfusion Injury in Swine (Physiology)

8. Kannaporn Intachai, M.S., Major Advisor of the Doctirate Degree Committee
   Topic: The Effects of Acetylcholine Receptors Activation in Cytoprotection Against Hypoxia/reoxygenation Induced Injury in H9c2 Cell (Physiology)

Graduate Student's Dissertation Examining Committees

1. Sirinart Kumfu, M.S., Member of the Doctorate Degree Examining Committee
   Topic: Mechanisms of Iron Transportation Into the Hearts of Thalassemic Mice
   (Physiology)
2. Luerat Supakul, B.S., Member of the Master Degree Committee
   Topic: The Effect of Garlic Extract on Cardiac Function in Insulin Resistant Rats Induced by High-Fat Diet Consumption
   (Physiology)
3. Tharnwimol Inthachai, B.S., Member of the Master Degree Committee
   Topic: Effects of Metformin and Vildagliptin on the Rat's Heart with Chronic Myocardial Infarction
   (Physiology)

Mentor for Recipients of National Scientific Research Awards

2016	Best Research Presentation Award (Master Level-Oral) 2016, The Physiological Society of Thailand (Watthana Nuntaphum, MSc)

Special Academic Appointments

2017-Present	The Institutional Animal Care and Use Committee (IACUC), Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2016-Present	The Institutional Biosafety Committee (IBC), Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2012-Present	Graduate School Faculty, Naresuan University, Phitsanulok, Thailand
2011-Present	Graduate School Faculty, Chiang Mai University, Chiang Mai, Thailand
2011-Present	Committee, Cardiovascular Section for Medical Curriculum, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2011-Present	Committee, Respiratory Section for Medical Curriculum, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2004-Present	Grand Round Committee, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2004-Present	Comprehensive Examination Committee for Pre-clinic Medical Student, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2004-Present	Physiological Curriculum Committee for 2nd years Medical Student, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

RESEARCH GRANT SUPPORT

07/2020-06/2023	NRCT Research Scholar (เมธีวิจัย วช.), National Research Council of Thailand, Bangkok, Thailand. "The Effects of Acetylcholine Receptors Activation on Cardioprotection Against Hypoxia/Reoxygenation Induced Injury in H9c2 Cell". (PI)
10/2021-09/2022	Thailand Science Research and Innovation-Chiang Mai University, Thailand. "The Effects of Hyperbaric Oxygen Therapy on Metabolic Parameters, Cardiac and Mitochondrial Functions in D-galactose Induced Aging Rats in the Presence of Obese-Insulin Resistant Condition". (PI)
03/2019-02/2020	Endowment Fund, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand. "The Effects of Acetylcholine Receptors Activation in Cardioprotection Against Hypoxia/Reoxygenation-Induced Cell Injury in H9c2 Cell". (PI)
03/2017-02/2019	Endowment Fund, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand. "The Effects of Vagus Nerve Stimulation on Cardiac Mitochondrial Biogenesis in Swine's Heart Subjected to Acute Ischemia/Reperfusion Injury". (PI)
07/2015-06/2018	The Thailand Research Fund Grant (เมธีวิจัย สกว.), the Thailand Research Fund (RSA), Bangkok, Thailand. "The Effects of Vagus Nerve Stimulation on Acute Cardiac Ischemia/Reperfusion Injury". (PI)
07/2013-06/2014	Chiang Mai University Young Researcher Fund, Chiang Mai University, Thailand. "Effect of the Vagal Nerve Stimulation on the Ventricular Defibrillation". (PI)
07/2012-06/2014	TRF-CHE Research Grant for New Scholar, the Thailand Research Fund (MRG5580125), Bangkok, Thailand. "Role of Sodium Channel and Brugada Syndrome". (PI)
07/2008-06/2010	American Heart Association Pre-doctorol Fellowship Grant (0815479D), Great Rivers Affiliate, USA. "Role of Sodium Channel and Brugada Syndrome". (PI)
11/2004-10/2006	Endowment Fund, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand. "Effect of Sildenafil Citrate and Nitroglycerine Combination on Defibrillation Efficacy in Swine". (PI)
09/2004-02/2006	Endowment Fund, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand. "Effect of Sildenafil Citrate on Defibrillation Efficacy in Swine". (Co-PI)

PEER REVIEWED ARTICLES

(*__Corresponding Author__)

1. Arinno A, Maneechote C, Khuanjing T, Prathumsap N, Chunchai T, Arunsak B, Nawara W, Kerdphoo S, **Shinlapawittayatorn K**, Chattipakorn SC, Chattipakorn N. Melatonin and metformin ameliorated trastuzumab-induced cardiotoxicity through the modulation

of mitochondrial function and dynamics without reducing its anticancer efficacy. *Biochim Biophys Acta Mol Basis Dis*. 2023;1869(2):166618. (Impact Factor = 6.633, Q1)

2. Sithirungson S, Sonsuwan N, Chattipakorn SC, Chattipakorn N, **Shinlapawittayatorn K***. Functional roles of orexin in obstructive sleep apnea: From clinical observation to mechanistic insights. *Sleep Med*. 2023;101:40-49. (Impact Factor = 4.842, Q1)
3. Wanchaitanawong W, Thinrungroj N, Chattipakorn SC, Chattipakorn N, **Shinlapawittayatorn K***. Repurposing metformin as a potential treatment for inflammatory bowel disease: Evidence from cell to the clinic. *Int Immunopharmacol*. 2022;112:109230. (Impact Factor = 5.714, Q1)
4. Gomutbutra P, Srikhamjak T, Sapinun L, Kunapun S, Yingchankul N, Apaijai N, **Shinlapawittayatorn K**, Phuackchantuck R, Chattipakorn N, Chattipakorn S. Effect of intensive weekend mindfulness-based intervention on BDNF, mitochondria function, and anxiety. A randomized, crossover clinical trial. *Compr Psychoneuroendocrinol*. 2022;11;100137. (Impact Factor = N/A)
5. Apichartpiyakul P, **Shinlapawittayatorn K**, Rerkasem K, Chattipakorn SC, Chattipakorn N. Mechanisms and Interventions on Acute Lower Limb Ischemia/Reperfusion Injury: A Review and Insights from Cell to Clinical Investigations. *Ann Vasc Surg.* 2022;86;452-481. (Impact Factor = 1.607, Q2)
6. **Shinlapawittayatorn K,** Pongkan W, Sivasinprasasn S, Chattipakorn SC, Chattipakorn N. Sexual dimorphism in cardiometabolic and cardiac mitochondrial function in obese rats following sex hormone deprivation. *Nutr Diabetes*. 2022;17;12(1):11. (Impact Factor = 5.097, Q1)
7. **Shinlapawittayatorn K**, Chattipakorn SC, Chattipakorn N. The Effects of Doxorubicin on Cardiac Calcium Homeostasis and Contractile Function. *J Cardiol*. 2022;80(2):125-132. (Impact Factor = 3.115, Q1)
8. Intachai K, Limpakan S, Chattipakorn S, Chattipakorn N, **Shinlapawittayatorn K***. Acetylcholine Exerts Cytoprotection Against Hypoxia/Reoxygenation-Induced Apoptosis, Autophagy and Mitochondrial Impairment Through Both Muscarinic and Nicotinic Receptors. *Apoptosis*. 2022;27(3-4):233-245. (Impact Factor = 5.346, Q1)
9. Tanprasert P, Limpakan S, Chattipakorn S, Chattipakorn N, **Shinlapawittayatorn K***. Targeting Mitochondria as a Therapeutic Anti-gastric Cancer Approach. *Apoptosis.* 2022;27(3-4):163-183. (Impact Factor = 5.346, Q1)
10. Prathumsap N, Ongnok B, Khuanjing T, Arinno A, Maneechote C, Apaijai N, Chunchai T, Arunsak B, **Shinlapawittayatorn K**, Chattipakorn SC, Chattipakorn N. Acetylcholine receptor agonists provide cardioprotection in doxorubicin-induced cardiotoxicity via modulating muscarinic M2 and α7 nicotinic receptor expression. *Transl Res*. 2021;15:S1931-5244(21)00288-7. (Impact Factor = 7.012, Q1)
11. Meetham K, Taerujjirakul T, Garitjirapath N, Navic P, **Shinlapawittayatorn K**, Mahakkanukrauh P. The morphometric study of the moderator band in Thais. *Anat Sci Int*. 2021. (Impact Factor = 1.55, Q2)
12. Arinno A, Maneechote C, Khuanjing T, Ongnok B, Prathumsap N, Chunchai T, Arunsak B, Kerdphoo S, **Shinlapawittayatorn K**, Chattipakorn SC, Chattipakorn N. Cardioprotective effects of melatonin and metformin against doxorubicin-induced cardiotoxicity in rats are through preserving mitochondrial function and dynamics. *Biochem Pharmacol*. 2021;192:114743. (Impact Factor = 5.858, Q1)
13. Bo-Thay C, Shwe T, Jaiwongkam T, Kerdphoo S, Pratchayasakul W, Pattarasakulchai T, **Shinlapawittayatorn K**, Chattipakorn SC, Chattipakorn N. Impact of iron overload on bone remodeling in thalassemia. *Aging*. 2021; 16;13(8):10955-10972. (Impact Factor = 5.682, Q1)

14. Piriyakhuntorn P, Tantiworawit A, Phimphilai M, **Shinlapawittayatorn K**, Chattipakorn SC, Chattipakorn N. Impact of iron overload on bone remodeling in thalassemia. *Arch Osteoporos*. 2020;14;15(1):143. (Impact Factor = 2.617, Q2)
15. Thonusin C, **Shinlapawittayatorn K**, Chattipakorn SC, Chattipakorn N. The Impact of Genetic Polymorphisms on Weight Regain After Successful Weight Loss. *Br J Nutr*. 2020;28;124(8):809-823. (Impact Factor = 3.334, Q1)
16. Prathumsap N, **Shinlapawittayatorn K**, Chattipakorn SC, Chattipakorn N. Effects of Doxorubicin on the Heart: From Molecular Mechanisms to Intervention Strategies. *Eur J Pharmacol*. 2020;5;866:172818. (Impact Factor = 4.12, Q1)
17. Bo-Thay C, Shwe T, Higgins L, Palee S, **Shinlapawittayatorn K**, Chattipakorn SC, Chattipakorn N. Aging induced by D-galactose Aggravates Cardiac Dysfunction via Exacerbating Mitochondrial Dysfunction in Obese-insulin Resistant Rats. *GeroScience* 2019;42(1):233-249. (Impact Factor = 7.713, Q1)
18. Intachai K, Chattipakorn S, Chattipakorn N, **Shinlapawittayatorn K***. Revisiting the Cardioprotective Effects of Acetylcholine Receptor Activation against Myocardial Ischemia/Reperfusion Injury. *Int J Mol Sci* 2018;19(9):2466. (Impact Factor = 5.924, Q1)
19. Nuntaphum W, Pongkan W, Wongjaikam S, Thummasorn S, Tanajak P, Khamseekaew J, Intachai K, Chattipakorn S, Chattipakorn N, **Shinlapawittayatorn K***. Vagus Nerve Stimulation Exerts Cardioprotection Against Myocardial Ischemia/Reperfusion Injury Predominantly Through its Efferent Vagal Fibers. *Basic Res Cardiol* 2018;113(4):22. (Impact Factor = 17.165, Q1)
20. Charununtakorn ST, **Shinlapawittayatorn K**, Chattipakorn SC, Chattipakorn N. Humanin Directly Protects Cardiac Mitochondria Against Dysfunction Initiated by Oxidative Stress by Decreasing Complex I activity. *Mitochondrion* 2018;38:31-40. (Impact Factor = 3.430, Q1)
21. **Shinlapawittayatorn K**, Chattipakorn SC, Chattipakorn N. The Influence of Obese Insulin-Resistance on the Outcome of the Ischemia/Reperfusion Insult to the Heart. *Curr Med Chem* 2018;25(13):1501-1509. (Impact Factor = 4.184, Q1)
22. Clatot J, Hoshi M, Wan X, Liu H, Jain A, **Shinlapawittayatorn K**, Marionneau C, Ficker E, Ha T, Deschênes I. Voltage-Gated Sodium Channels Assemble and Gate as Dimers. *Nat Commun* 2017;12;8(1):2077. (Impact Factor = 12.121)
23. Weerateerangkul P, **Shinlapawittayatorn K**, Palee S, Apaijai N, Chattipakorn SC, Chattipakorn N. Early Testosterone Replacement Attenuates Intracellular Calcium Dyshomeostasis in the Heart of Testosterone-Deprived Male Rats. *Cell Calcium* 2017;67:22-30. (Impact Factor = 3.932, Q1)
24. Charununtakorn ST, **Shinlapawittayatorn K**, Chattipakorn SC, Chattipakorn N. High Dose Humanin Analogue Applied During Ischemia Exerts Cardioprotection Against Ischemia/Reperfusion Injury by Reducing Mitochondrial Dysfunction. *Cardiovasc Ther* 2017;35(5). (Impact Factor = 2.315, Q1)
25. **Shinlapawittayatorn K***, Chattipakorn SC, Chattipakorn N. Subthreshold Vagal Nerve Stimulation and the Controversial Findings Regarding the Anti-Infarct Effect Against Myocardial Ischemia/Reperfusion Injury. *Exp Physiol* 2017;102(3):385. (Impact Factor = 2.912, Q2)

26. Charununtakorn ST, Apaijai N, Kerdphoo S, **Shinlapawittayatorn K**, Chattipakorn SC, Chattipakorn N. Humanin exerts cardioprotection against cardiac ischemia-reperfusion injury through attenuation of mitochondrial dysfunction. *Cardiovasc Ther* 2016;34:404-414. (Impact Factor = 2.512, Q2)
27. Palee S, Apaijai N, **Shinlapawittayatorn K**, Chattipakorn SC, Chattipakorn N. Acetylcholine Attenuates Hydrogen Peroxide-Induced Intracellular Calcium Dyshomeostasis Through Both Muscarinic and Nicotinic Receptors in Cardiomyocytes. *Cell Physiol Biochem* 2016;39(1):341-9. (Impact Factor = 5.5, Q1)
28. Chunchai T, Samniang B, Sripetchwandee J, Pintana H, Pongkan W, Kumfu S, **Shinlapawittayatorn** K, KenKnight BH, Chattipakorn N, Chattipakorn SC. Vagus Nerve Stimulation Exerts the Neuroprotective Effects in Obese-Insulin Resistant Rats, Leading to the Improvement of Cognitive Function. *Sci Rep* 2016;26;6:26866. (Impact Factor = 3.998, Q1)
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BOOK CHAPTERS

1. **Shinlapawittayatorn K**, Chattipakorn SC, Chattipakorn N. Vagus Nerve Stimulation: A Promising Cardioprotective Strategy Against Ischemia-Reperfusion Injury. In: Coronary Artery Disease - Research and Practice. iConcept Press. 2016 (ISBN 978-1-922227-98-0).

RESEARCH FIELDS OF INTEREST

1. Channelopathies in Heart Disease
2. Inherited Cardiac Arrhythmias
3. Ion Channels Trafficking
4. Regulation of Gene Expression and Gene Therapy
5. Patient-Specific Induced Pluripotent Stem (iPS) Cell Models
6. Heart-Brain Interactions in Cardiac Arrhythmias: Role of the Autonomic Nervous System
7. Cardiac Reperfusion Injury
8. Mitochondrial dynamics and Mitophagy

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- มีผลงานตีพิมพ์งานวิจัยจำนวนทั้งสิ้น 53 เรื่องทั้งในรูปของ original article และ editorial comment ในวารสารชั้นนำอาทิเช่น Basic Research in Cardiology, Nature Communications, Journal of Clinical Investigation, Circulation Cardiovascular Genetics, GeroScience และ Heart Rhythm เป็นต้น, h-index = 21 และเขียน book chapter ให้แก่ international textbook จำนวน 1 เล่ม