Curriculum vitae

Sirawit Sriwichaiin, M.D.

Office address: Cardiac Electrophysiology Research & Training Center (CERT)
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Current position: *Staff*, Cardiac Electrophysiology Research and Training Center, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

Instructor, Department of Physiology, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

Physician, Maharaj Nakorn Chiang Mai Hospital, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

Graduate students, AI and Innovative Medicine, Graduate School of Medicine, Tohoku University, Japan

Education

2012 – 2018 M.D. (First Class Honor): Faculty of Medicine,

Chiang Mai University, Chiang Mai, Thailand

Professional License

2018 – present M.D. (Thailand)

Professional Appointment

2019 – present *Instructor*, Department of Physiology, Faculty of Medicine, Chiang Mai university

2018 – present	*Staff*, Cardiac Electrophysiology Research and Training Center, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2018 – present	*Physician*, Maharaj Nakorn Chiang Mai Hospital, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

Organization and Participation

2019 – present	The Physiological Society of Thailand
2018 – present	The Medical Council of Thailand

Honors and Award

2019	Alzheimer's Association International Conference 2019 Travel Fellowship award
2014	Top score in Human nervous system, Chiang Mai University
	Top score in Human reproductive system, Chiang Mai University
2013	Top score in Hematology system, Chiang Mai University

Scholarship

2023	Monbukagakusho (MEXT) scholarship with Embassy Recommendation

Activities

2019 - Present	Advisor, Chiang Mai University Medical Student Research Club, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2018	Elective Course in Calcium and Bone Research, Center of Calcium and Bone Research (COCAB), Department of Physiology, Faculty of Science, Mahidol University, Bangkok, Thailand (Distinguished Professor Narattaphol Charoenphandhu, M.D., Ph.D.)
2018	Elective Course in Thalassemia Research Center, Institute of Molecular Biosciences, Mahidol University, Salaya Campus, Mahidol University, Bangkok, Thailand (Professor Emeritus Suthat Fucharoen, M.D.)
2018 - Present	Member of the Organizing Committee, The Neurologic and Cardiac Electrophysiology Symposium (NCES), Cardiac Electrophysiology

	Research and Training (CERT) Center, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2018 - 2019	Member of the Selection Committee and Advisor of Chiang Mai University medical student delegates participating in the Inter-Medical School Physiology Quiz (IMSPQ) at the University of Malaya, Kuala Lumpur, Malaysia and the University of Indonesia, Jakarta, Indonesia
2016	Elective Course in Department of Anatomy and Neurobiology, Faculty of Medicine, Kagawa University, Japan (Professor Takanori Miki)
2016	International winter seminar 2016, Faculty of medicine, Kagawa University, Kagawa, Japan
2015	Siriraj International Medical Microbiology, Parasitology and Immunology Competition (SIMPIC) 2015 candidate, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2015	Elective Course, Faculty of Medicine, Fukui University, Japan
2015	13th Inter-medical school Physiology Quiz (IMSPQ) candidate, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2012 - 2018	Member of the Medical Student Academic Committee, Chiang Mai University Medical Student Organization (CMSO), Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2009-2010	Science Olympiad Camp – Mathematic major, Faculty of Science, Chiang Mai University, Chiang Mai, Thailand in collaboration with The Promotion of Academic Olympiad and Development of Science Education Foundation (POSN)

Peer-Reviewed Articles

1. Nonglak Boonchooduang, Orawan Louthrenoo, Narueporn Likhitweerawong, Chanon Kunasol, Chanisa Thonusin, **Sirawit Sriwichaiin**, Wichwara Nawara, Nipon Chattipakorn, Siriporn C Chattipakorn. Impact of psychostimulants on microbiota and short-chain fatty acids alterations in children with attention-deficit/hyperactivity disorder. *Sci Rep*. 2025 Jan 24;15(1):3034.
2. Sarisa Klinhom, Chanon Kunasol, **Sirawit Sriwichaiin**, Sasiwan Kerdphoo, Nipon Chattipakorn, Siriporn C Chattipakorn, Chatchote Thitaram. Characteristics of gut microbiota profiles in Asian elephants (Elephas maximus) with gastrointestinal disorders. *Sci Rep*. 2025 Jan 8;15(1):1327.
3. Kanokphong Suparan, Kornkanok Trirattanapa, Pokpong Piriyakhuntorn, **Sirawit Sriwichaiin**, Chanisa Thonusin, Wichwara Nawara, Sasiwan Kerdpoo, Nipon Chattipakorn, Adisak Tantiworawit, Siriporn C Chattipakorn. Exploring alterations of gut/blood microbes in addressing iron overload-induced gut dysbiosis and cognitive impairment in thalassemia patients. *Sci Rep*. 2024 Oct 23;14(1):24951.
4. Phoom Narongkiatikhun, Chanisa Thonusin, **Sirawit Sriwichaiin**, Wichwara Nawara, Kanda Fanhchaksai, Nuttanun Wongsarikan, Sirinart Kumfu, Nipon Chattipakorn, Siriporn C Chattipakorn. Alterations of plasma metabolomes and their correlations with immunogenicity in maintenance hemodialysis patients receiving different COVID-19 vaccine regimens. *Physiol Rep*. 2024 Aug;12(16):e70005.
5. Korsin Laohavisudhi, **Sirawit Sriwichaiin**, Tanawat Attachaipanich, Borwon Wittayachamnankul, Nipon Chattipakorn, Siriporn Chattipakorn. Mechanistic insights into Lipocalin-2 in ischemic stroke and hemorrhagic brain injury: Integrating animal and clinical studies. *Exp Neurol*. 2024 Sep:379:114885.
6. Kanokphong Suparan, **Sirawit Sriwichaiin**, Chanisa Thonusin, Jirapas Sripetchwandee, Thawatchai Khuanjing, Chayodom Maneechote, Wichwara Nawara, Busarin Arunsak, Nipon Chattipakorn, Siriporn C Chattipakorn. Donepezil ameliorates gut barrier disruption in doxorubicin-treated rats. *Food Chem Toxicol*. 2024 Jul:189:114741.
7. Chanisa Thonusin, Nichanan Osataphan, Krit Leemasawat, Wichwara Nawara, **Sirawit Sriwichaiin**, Siriporn Supakham, Siriluck Gunaparn, Nattayaporn Apaijai, Areewan Somwangprasert, Arintaya Phrommintikul, Siriporn C Chattipakorn, Nipon Chattipakorn. Changes in blood metabolomes as potential markers for severity and prognosis in doxorubicin-induced cardiotoxicity: a study in HER2-positive and HER2-negative breast cancer patients. *J Transl Med*. 2024 Apr 29;22(1):398.
8. Tanawat Attachaipanich, **Sirawit Sriwichaiin**, Nattayaporn Apaijai, Sasiwan Kerdphoo, Nisakron Thongmung, Prin Vathesatogkit, Piyamitr Sritara, Nipon Chattipakorn, Chagriya Kitiyakara, Siriporn C Chattipakorn. An Increase in Vascular Stiffness Is Positively Associated With Mitochondrial Bioenergetics Impairment of Peripheral Blood Mononuclear Cells in the Older Adults. *J Gerontol A Biol Sci Med Sci*. 2024 Jul 1;79(7):glae095.
9. Adivitch Sripusanapan, Panat Yanpiset, **Sirawit Sriwichaiin**, Natthaphat Siri-Angkul, Siriporn C Chattipakorn, Nipon Chattipakorn. Hyperpolarization-activated cyclic nucleotide-gated channel inhibitor in myocardial infarction: Potential benefits beyond heart rate modulation. *Acta Physiol (Oxf)*. 2024 Mar;240(3):e14085.
10. Kittipat Charoenkwan, Nattayaporn Apaijai, **Sirawit Sriwichaiin**, Nipon Chattipakorn, Siriporn C Chattipakorn. Alterations in mitochondria isolated from

peripheral blood mononuclear cells and tumors of patients with epithelial ovarian cancers. *Sci Rep*. 2024 Jan 2;14(1):15.
11. Chanisa Thonusin, Nichanan Osataphan, Krit Leemasawat, Wichwara Nawara, **Sirawit Sriwichaiin**, Siriporn Supakham, Siriluck Gunaparn, Nattayaporn Apaijai, Areewan Somwangprasert, Arintaya Phrommintikul, Siriporn C Chattipakorn, and Nipon Chattipakorn. Changes in blood metabolomes as potential markers for severity and prognosis in doxorubicin-induced cardiotoxicity: a study in HER2-positive and HER2-negative breast cancer patients. *J Transl Med*. 2024; 22: 398.
12. Kanokphong Suparan, **Sirawit Sriwichaiin**, Chanisa Thonusin, Jirapas Sripetchwandee, Thawatchai Khuanjing, Chayodom Maneechote, Wichwara Nawara, Busarin Arunsak, Nipon Chattipakorn, Siriporn C Chattipakorn. Donepezil ameliorates gut barrier disruption in doxorubicin-treated rats. *Food and Chemical Toxicology.* 2024;189:114741.
13. Tanawat Attachaipanich, **Sirawit Sriwichaiin**, Nattayaporn Apaijai, Sasiwan Kerdphoo, Nisakron Thongmung, Prin Vathesatogkit, Piyamitr Sritara, Nipon Chattipakorn, Chagriya Kitiyakara, Siriporn C Chattipakorn. An Increase in Vascular Stiffness Is Positively Associated With Mitochondrial Bioenergetics Impairment of Peripheral Blood Mononuclear Cells in the Older Adults. *J Gerontol A Biol Sci Med Sci*. 2024 Jul 1;79(7):glae095.
14. Adivitch Sripusanapan, Panat Yanpiset, **Sirawit Sriwichaiin**, Natthaphat Siri-Angkul, Siriporn C Chattipakorn, Nipon Chattipakorn. Hyperpolarization-activated cyclic nucleotide-gated channel inhibitor in myocardial infarction: Potential benefits beyond heart rate modulation. *Acta Physiol (Oxf)*. 2024 Mar;240(3):e14085.
15. Chanisa Thonusin, Patcharapong Pantiya, Aphisek Kongkaew, Wichwara Nawara, Busarin Arunsak, **Sirawit Sriwichaiin**, Nipon Chattipakorn, Siriporn C Chattipakorn. Exercise and Caloric Restriction Exert Different Benefits on Skeletal Muscle Metabolism in Aging Condition. *Nutrients*. 2023 Dec 3;15(23):5004.
16. Sarisa Klinhom, **Sirawit Sriwichaiin***, Sasiwan Kerdphoo, Jaruwan Khonmee, Nipon Chattipakorn, Siriporn C Chattipakorn, Chatchote Thitaram. Characteristics of gut microbiota in captive Asian elephants (Elephas maximus) from infant to elderly. *Sci Rep*. 2023 Dec 27;13(1):23027 *SK and SS contributed equally in this paper.
17. Yanpiset P, Maneechote C, **Sriwichaiin S**, Siri-Angkul N, Chattipakorn SC, Chattipakorn N. Gasdermin D-mediated pyroptosis in myocardial ischemia and reperfusion injury: Cumulative evidence for future cardioprotective strategies. *Acta Pharm Sin B*. 2023;13(1):29-53.
18. Thonusin C, Nawara W, Khuanjing T, Prathumsup N, Arinno A, Ongnok B, Arunsak B, **Sriwichaiin S**, Chattipakorn SC, Chattipakorn N. Blood metabolomes as non-invasive biomarkers and targets of metabolic interventions for doxorubicin- and trastuzumab- induced cardiotoxicity. *Arch Toxicol* 2022;97(2):603-618
19. **Sriwichaiin S**, Apaijai N*, Phrommintikul A, Jaiwongkam T, Kerdphoo S, Pratchayasakul W, Thongmung N, Mahantassanapong U, Vathesatogkit P, Kitiyakara C, Sritara P, Chattipakorn N, Chattipakorn SC. Increased Efficiency of Mitochondrial Coupling with a Reduction in Other Mitochondrial Respiratory Parameters in Peripheral Blood Mononuclear Cells is Observed in Older Adults. *J Gerontol A Biol Sci Med Sci*. 2022;78(3):384-391 *AP and SS contributed equally in this paper.

20. Thummasorn S, Apichai S, Chupradit S, Sirisattayawong P, Chaiwong P, **Sriwichaiin S**, Pratchayasakul W, Chattipakorn N, Chattipakorn SC. T2DM patients with depression have higher levels of hyperglycemia and cognitive decline than T2DM patients. *PLoS One.* 2022;17(8):e0273327.
21. Pratchayasakul W, Arunsak B, Suparan K, **Sriwichaiin S**, Chunchai T, Chattipakorn N, Chattipakorn SC. Combined Caloric Restriction and Exercise Provides Greater Metabolic and Neurocognitive Benefits than either as a Monotherapy in Obesity With or Without Estrogen Deprivation. *J Nutr Biochem*. 2022;14:109125.
22. **Sriwichaiin S**, Thiennimitr P, Thonusin C, Sarichai P, Buddhasiri S, Kumfu S, Nawara W, Kittichotirat W, Fucharoen S, Chattipakorn N, Chattipakorn SC. Deferiprone has less benefits on gut microbiota and metabolites in high iron-diet induced iron overload thalassemic mice than in iron overload wild-type mice: A preclinical study. *Life Sci*. 2022;307:120871.
23. Pantiya P, Thonusin C, Sumneang N, Ongnok B, Chunchai T, Kerdphoo S, Jaiwongkam T, Arunsak B, Siri-Angkul N, **Sriwichaiin S**, Chattipakorn N, Chattipakorn SC. High Cardiorespiratory Fitness Protects against Molecular Impairments of Metabolism, Heart, and Brain with Higher Efficacy in Obesity-Induced Premature Aging. *Endocrinol Metab (Seoul)*. 2022;37(4):630-640.
24. Suparan K, **Sriwichaiin S**, Chattipakorn N, Chattipakorn SC. Human Blood Bacteriome: Eubiotic and Dysbiotic States in Health and Diseases. *Cells*. 2022;11(13):2015.
25. Thonusin C, Pantiya P, Sumneang N, Chunchai T, Nawara W, Arunsak B, Siri-Angkul N, **Sriwichaiin S**, Chattipakorn SC, Chattipakorn N. Effectiveness of high cardiorespiratory fitness in cardiometabolic protection in prediabetic rats. *Mol Med*. 2022;10;28(1):31.
26. **Sriwichaiin S**, Kittichotirat W, Chunchai T, Chattipakorn N, Chattipakorn SC. Profiles of gut microbiota in obese-insulin-resistant rats treated with biotics. *Eur J Nutr.* 2022;61(5):2493-505.
27. **Sriwichaiin S**, Chattipakorn N, Chattipakorn SC. Metabolomic Alterations in the Blood and Brain in Association with Alzheimer's Disease: Evidence from in vivo to Clinical Studies. *J Alzheimers Dis*. 2021;84(1):23-50.
28. Theerajangkhaphichai W, Sripetchwandee J, **Sriwichaiin S**, Svasti S, Chattipakorn N, Tantiworawit A, Chattipakorn SC. An association between fibroblast growth factor 21 and cognitive impairment in iron-overload thalassemia. *Sci Rep*. 2021;11(1):8057.
29. Apaijai N, **Sriwichaiin S***, Phrommintikul A, Jaiwongkam T, Kerdphoo S, Chansirikarnjana S, Thongmung N, Mahantassanapong U, Vathesatogkit P, Kitiyakara C, Sritara P, Chattipakorn N, Chattipakorn SC. Cognitive impairment is associated with mitochondrial dysfunction in peripheral blood mononuclear cells of elderly population. *Sci Rep*. 2020;10(1):21400. *AP and SS contributed equally in this paper.
30. Lahnwong S, Palee S, Apaijai N, **Sriwichaiin S**, Kerdphoo S, Jaiwongkam T, Chattipakorn SC, Chattipakorn N. Acute dapagliflozin administration exerts

cardioprotective effects in rats with cardiac ischemia/reperfusion injury. *Cardiovasc Diabetol*. 2020;19(1):91.
31. Luca M, Chattipakorn SC, **Sriwichaiin S**, Luca A. Cognitive-Behavioural Correlates of Dysbiosis: A Review. *Int J Mol Sci.* 2020;21(14).
32. Mantor D, Pratchayasakul W, Minta W, Sutham W, Palee S, Sripetchwandee J, Kerdphoo S, Jaiwongkum T, **Sriwichaiin S**, Krintratun W, Chattipakorn N, Chattipakorn SC. Both oophorectomy and obesity impaired solely hippocampal-dependent memory via increased hippocampal dysfunction. *Exp Gerontol.* 2018;108:149-58.

Peer-Reviewed Abstracts

1. Kornkanok Trirattanapa, Adisak Tantiworawit, Kanokphong Suparan, **Sirawit Sriwichaiin**, Sasiwan Kerdpoo, Teerachat Punnachet, Nonthakorn Hantrakun, Sasinee Hantrakool, Pokpong Piriyakhuntorn, Thanawat Rattanathammethee, Chatree Chaiadisaksopha, Ekarat Ekarat Rattarittamrong, Lalita Norasetthada, Nipon Chattipakorn, Siriporn Chattipakorn. Alterations of Gut Microbiota Related with Status of Iron-Overload in Thalassemia Patients: A Cross-Sectional Pilot Study. *Blood* (2023) 142 (Supplement 1): 5257.
2. Kanokphong Suparan, Kornkanok Trirattanapa, **Sirawit Sriwichaiin**, Sasiwan Kerdphoo, Adisak Tantiworawit, Nipon Chattipakorn, Siriporn C Chattipakorn. Transfusion-dependent thalassemia patients develop cognitive impairment with gut dysbiosis. *Alzheimer's & Dementia*. 2023;19(S13):e073541
3. Thonusin C, Pantiya P, Nawara W, Arunsak B, **Sriwichaiin S**, Chattipakorn N, Chattipakorn SC; 1644-P: Exercise and Caloric Restriction Exert Different Benefits on Metabolism and Mechanical Function of Skeletal Muscle in Aging Condition. Diabetes 20 June 2023; 72 (Supplement_1): 1644–P. https://doi.org/10.2337/db23-1644-P
4. Ketpueak T, **Sriwichaiin S**, Suparan K, Kerdphoo S, Charoentum C, Suksomboon charoen T, Chewaskulyong B, Chattipakorn N, Chattipakorn SC. Alteration of gut microbiota composition in patients with cholangiocarcinoma with non-responsiveness to first-line chemotherapy: A pilot study. *Journal of Clinical Oncology* 2023 41:16_suppl, 4104
5. Thonusin C, Nawara W, Khuanjing T, Prathumsap N, Arinno A, Ongnok B, Arunsak B, **Sriwichaiin S**, Chattipakorn S, Chattipakorn N. Abstract 11203: Blood Metabolomes as Non-Invasive Biomarkers and Targets of Metabolic Interventions for Doxorubicin- and Trastuzumab-Induced Heart Failure. *Circulation*. 2022;146(Suppl_1):A11203-A.
6. **Sriwichaiin S**, Apaijai N, Phrommintikul A, Jaiwongkam T, Kerdphoo S, Chansirikarnjana S, Thongmung N, Mahantassanapong U, Vathesatogkit P, Kitiyakara C, Sritara P, Chattipakorn N, Chattipakorn SC. Impaired mitochondrial ATP production, reduced mitochondrial spare respiratory capacity, and increased oxidative stress in PBMCs are associated with aging in adult EGAT population. *Alzheimer's & Dementia.* 2021;17(S3):e051283.
7. Thonusin C, Pantiya P, Sumneang N, **Sriwichaiin S**, Chattipakorn N, Chattipakorn S. 499-P: The Effect of Exercise Capacity on Metabolic and Cardiac Aging in Normal and Obese Rats. *Diabetes*. 2021;70:499-P.
8. **Sriwichaiin S**, Apaijai N, Jaiwongkam T, Kerdphoo S, Pratchayasakul W, Palee S, Phrommintikul A, Kitiyakara C, Sritara P, Chattipakorn N, Chattipakorn S. Mitochondrial ATP-linked respiration in PBMCs is associated with cognition in Aged-EGAT population. *J Physiol Sci* 2019;136:1P-232.
9. Theerajangkhaphichai W, Tantiworawit A, Sripetchwandee J, Apaijai N, **Sriwichaiin S**, Saiyasit N, Jinawong K, Arunsak B, Piriyakhuntorn P, Rattanathammethee T, Hantrakool S, Chai-Adisaksopha C, Rattarittamrong E,

Norasetthada L, Charoenkwan P, Chattipakorn N, Chattipakorn S. Factor-Associated Risk Factors of Mild Cognitive Impairment in Thalassemia Patients: Probable Role of FGF21. *Blood*. 2019;134(Supplement_1):2251.

10. **Sriwichaiin S**, Lahnwong S, Apaijai N, Chattipakorn K, Kerdphoo S, Jaiwongkam T, Chattipakorn N, Chattipakorn SC. P1-174: Pretreatment with Dapagliflozin Provides Neuroprotective Effects Following Cardiac ischemia/reperfusion (I/R) Injury by Decreasing Amyloid Beta Aggregation and Blood-Brain Barrier Breakdown. *Alzheimer's & Dementia*. 2019;15(7S_Part_6):P303-P.
11. Pratchayasakul W, Mantor D, Minta W, Sutham W, Palee S, Sripetchwandee J, Kerdphoo S, Jaiwongkam T, **Sriwichaiin S**, Krintratun W, Chattipakorn N, Chattipakorn SC. P2-159: Both Estrogen Deprivation and Obesity Impair Hippocampal-Dependent Memory, but Estrogen Deprivation does not Aggravate that Memory under an Obese Condition. *Alzheimer's & Dementia*. 2018;14(7S_Part_13):P728-P9.

Special Skills

1. Data handling using Microsoft Excel
2. Data analysis using SPSS
3. Data analysis and visualization using Prism – GraphPad
4. Coding, Data analysis, and visualization using R program
5. Data analysis using QIIME2 program for microbiota analysis
6. Japanese Language (Japanese-Language Proficiency Test (JLPT) – N2)

Scientific Abstract Participation at International Meetings

July 2021	Alzheimer's Association International Conference (AAIC) 2021, Denver, USA (Poster Presentation, Virtual meeting)
July 2019	Alzheimer's Association International Conference (AAIC) 2019, Los Angeles, USA (Poster Presentation)
March 2019	9th Federation of the Asian and Oceanian Physiological societies (FAOPS) 2019 congress, Kobe, Japan (Poster Presentation)

Scientific Abstract Participation at National Meetings

August 2024	Moonshot Project Presentation, Tohoku University

Scientific Workshop Participation

February 2025	Medical AI Training, practicing for using ToMMo Supercomputer. Tohoku University, Sendai, Japan
March 2022	Basic Linux for Bioinformatics by Center of Multidisciplinary Technology for Advanced Medicine (CMUTEAM), Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
September 2021	Workshop: Analysis of Gut Microbiome in Human Health and Diseases, by Omics Center for health Sciences, Faculty of Medicine, Chiang Mai University, Chiang Mai and Systems Biology and Bioinformatics Laboratory, Pilot Plant Development and Training Institute, King Mongkut's University of Technology Thonburi, Thailand Technology Thonburi, Bangkok, Thailand
2020 – 2021	Diploma course in Clinical Epidemiology, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
2020 – 2021	Diploma course in Clinical Statistics, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
August 2019	Workshop Microbial Genome Sequencing and Metagenome Analysis by Oxford Nanopore Technology, King Mongkut's University of