

CURRICULUM VITAE

KATESIRIN RUAMYOD, PhD

Office:

Department of Physiology, Faculty of Medicine Siriraj Hospital,
Mahidol University, 2 Wanglang Road, Bangkoknoi,
Bangkok 10700, THAILAND

Tel.+(662) 419-5272, +(66-81) 441-0580.

ORCID: 0000-0001-7382-6821

h-index: 5

E-mail: katesirin.ruy@mahidol.ac.th, katesirin.ry@gmail.com



Education:

2005-2013 PhD (Medical Physiology), Department of Physiology, Faculty of Medicine Siriraj Hospital, Mahidol University, Thailand.

2001-2005 Bachelor of Science (Physiotherapy). Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand.

Work experience:

2017 – Present Postdoctoral Research Fellow, Cardiovascular Division, Department of Physiology, Faculty of Medicine Siriraj Hospital, Mahidol University, Thailand.

2013 – 2017 Assistant Researcher, Cardiovascular Division, Department of Physiology, Faculty of Medicine Siriraj Hospital, Mahidol University, Thailand.

Research Interest:

1. Roles of cardiovascular ion channels in health and disease, and in response to sex hormones and herbal extracts/drugs, including related mechanisms
2. Ion channel study using patch clamp technique, including channelopathy study
3. Pancreatic beta cell ion channels in response to herbal extracts/drugs, including related mechanisms

Original article:

1. Rodthongdee K, Watanapa W., Ruamyod K, Nambundit P, Kooptiwut S, Semprasert N, Boontaveekul L. Ginsenoside Re increases human coronary artery endothelial SKCa current and nitric oxide release via glucocorticoid receptor-PI3K-Akt/PKB pathway. *Journal of Ginseng Research*. 2025; 49(5):523-531. [Impact factor 2023 = 6.8, Top10]
2. Tipcome K., Amatyakul P., Sirichareon C., Ruamyod K., Inchan A., Chootip K., Rodthongdee K. Mangiferin enhances human umbilical vein relaxation associated with no signaling, without exhibiting cytotoxicity on human endothelial cells. *Pharmaceutical Sciences Asia*. 2025; 52 (3): 312 – 318. [Q3]
3. Tipcome K, Watanapa WB, Ruamyod K. Hesperetin relaxes depolarizing contraction in human umbilical vein by inhibiting L-type Ca²⁺ channel. *Chin J Integr Med*. 2025;31(5):412-421. [Impact factor 2023 = 2.9, Q1]
4. Ruamyod K, Watanapa WB, Kakhai C, Nambundit P, Treewaree S, Wongsanupa P. Ferulic acid enhances insulin secretion by potentiating L-type Ca²⁺ channel activation. *J Integr Med*. 2023; 21(1): 99-105. [Impact factor 2021 = 3.951, Q1]
5. Oo, E. M., Ruamyod, K., Khowawisetsut, L., Turbpaiboon, C., Chaisuksunt, V., Uawithya, P., Pholphana, N., Rangkadilok, N., Chompoopong, S. Germinated brown rice attenuates cell death in vascular cognitive impaired mice and glutamate-induced toxicity in HT22 cells. *J Agric Food Chem*. 2020;68: 5093-5106. [Impact factor 2018 = 4.011, TOP10]
6. Nettuwakul C, Praditsap O, Sawasdee N, Rungroj N, Ruamyod K, Watanapa WB, et al. Loss-of-function mutations of SCN10A encoding NaV1.8 alpha subunit of voltage-

- gated sodium channel in patients with human kidney stone disease. *Sci Rep.* 2018;8(1):10453. [Impact factor 2018 = 4.011, TOP10]
7. Ruamyod K, Watanapa WB, Shayakul C. Testosterone rapidly increases Ca²⁺-activated K⁺ currents causing hyperpolarization in human coronary artery endothelial cells. *J Steroid Biochem Mol Biol.* 2017 Apr; 168: 118-26. [Impact factor 2017 = 4.095, Q1]
 8. Ruamyod K, Watanapa WB, Shayakul C. Characterization of ion channels in human coronary artery endothelial cells. *J Physiol Biomed Sci.* 2015; 28(1): 15-21. [TCI]
 9. Sukritanon S, Watanapa WB, Ruamyod K. Ginsenoside Re enhances small-conductance Ca²⁺-activated K⁺ currents in human coronary artery endothelial cells. *Life Sci.* 2014 Oct 12; 115(1-2): 15-21. [Impact factor 2014 = 2.702, Q2]
 10. Rodthongdee K, Watanapa WB, Ruamyod K. Effect of tetramethylpyrazine on ionic currents in human coronary artery endothelial cells. *J Physiol Biomed Sci.* 2011; 24(1 suppl): 83-9. [TCI]

Presentation:

1. Ruamyod K, Lilley S, Choudhury H, Watanapa WB, Mancini EJ. Channel Pharmacology and Calcium Sensitivity of Small Conductance Calcium-Activated Potassium (SK) channels: Automated Whole-cell vs Inside-Out Patch Clamp assays. Abstracts of the 40th Congress of the International Union of Physiological Sciences a joint meeting with Europhysiology, Frankfurt, Germany, September 11-14, 2025. Poster
2. Ruamyod K, Watanapa WB, Nambandit P. Long-term testosterone effects on small-conductance Ca²⁺-activated K⁺ currents and expression in human coronary artery endothelial cells. Abstracts of the 10th Congress of the Federation of Asian and Oceanian Physiological Societies, Daegu, Korea, November 1-4, 2023. Poster
3. Ruamyod K, Watanapa WB, Nambandit P. Effect of ferulic acid on L-type and T-type Ca²⁺ channels in rat pancreatic beta cell line. Abstracts of the 39th Congress of the International Union of Physiological Sciences (IUPS), Beijing, China, May 7-12, 2022. Virtual travel award. ePoster
4. Ruamyod K, Watanapa WB, Nambandit P, Kakhai C, Treewaree S, Wongsanupa P. Ferulic acid enhanced L-type Ca²⁺ channel function and insulin secretion in rat insulinoma cell line. Abstracts of the Physiology 2021, London, United Kingdom, July 12-16, 2021. ePoster
5. Ruamyod K, Watanapa WB, Nambandit P, Treewaree S, Wongsanupa P. Ferulic acid enhanced L-type Ca²⁺ channel function in rat insulinoma cell line. Abstracts of the 9th Congress of the Federation of Asian and Oceanian Physiological Societies, Kobe, Japan, March 28-31, 2019. Poster
6. Ruamyod K, Watanapa WB, Shayakul C. Effect of testosterone on ionic currents in human coronary artery endothelial cells. The 45th Annual Conference of The Physiological Society of Thailand, Khonkaen, Thailand, December 6-7, 2017. **Winner** award of PhD student oral presentation.
7. Ruamyod K, Watanapa WB, Praditsap O, Nettuwakul C, Sangnual S, et al. Functional study of novel NaV1.8 mutations causing kidney stone disease in a northeastern Thai family. Abstracts of the 8th Congress of the Federation of Asian and Oceanian Physiological Societies, Bangkok, Thailand, November 22-25, 2015. Poster
8. Ruamyod K, Watanapa WB, Shayakul C. Rapid androgens effects on potassium channel in human artery coronary endothelial cell. Abstracts of the 37th Congress of the International Union of Physiological Sciences, Birmingham, United Kingdom, July 21-26, 2013; 441. Travel award. Poster

9. Ruamyod K, Watanapa WB, Shayakul C, Tapechum S, Uawithya P. Effect of testosterone on ionic currents in human coronary artery endothelial cells. Abstracts of International Conference in Medicine and Public Health 2013, Bangkok, Thailand, June 24-28, 2013; A4. 2nd prize of postgraduate student oral presentation.
10. Ruamyod K, Watanapa WB, Shayakul C. Ionic currents of human coronary artery endothelial cells are increased by testosterone. Abstracts of the 7th Congress of the Federation of Asian and Oceanian Physiological Societies, Taipei, September 11-14, 2011; 242. Oral presentation
11. Ruamyod K, Watanapa WB, Shayakul C. Characterization of ion channels in human coronary artery endothelial cells. Abstracts of the 39th Annual Conference of The Physiological Society of Thailand, May 5-8, 2010; 120. Poster

Awards & Scholarships:

- 2024 University of Sussex – Mahidol Seed Grant (PI, budget 400,000 ฿)
 2020 New Researcher Fund from Thailand Research Fund (PI, budget 510,000 ฿)
 2008 The Siriraj Graduate Thesis Scholarship
 2006 The Siriraj Graduate Scholarship

Travel Grant:

- 2023 Young Investigator Travel Grant Award. Funds for attending the 10th Congress of the Federation of Asian and Oceanian Physiological Societies, Korea, November 1-4, 2023.
- 2022 Virtual travel award for attending the 39th Congress of the International Union of Physiological Sciences (IUPS), Beijing, China, May 7-12, 2022.
- 2013 IUPS travel grant for attending the 37th Congress of the International Union of Physiological Sciences, Birmingham, United Kingdom, July 21-26, 2013.
- 2011 Graduate Student Travel Award. Funds for attending the 7th Congress of the Federation of Asian and Oceanian Physiological Societies, Taiwan, September 11-14, 2011.

Technical Skills:

Electrophysiology:

- Voltage clamp and Current clamp: whole cell (single cell) & inside-out patch clamp configuration
- Automated (Planar) patch clamp

Cell and molecular biology:

- Cell culture: Human coronary artery endothelial cell, human umbilical vein endothelial cell, vascular smooth muscle, cardiac myocyte, CHO, HEK293 and INS-1 cells.
- Ca²⁺ imaging
- Microscopy: fluorescence and light microscopy
- Western blot, ELISA, Protein extraction and assay
- Amplify and purification plasmid DNA
- Transient transfection