KRIT JAIKUMKAO

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Education

2015-2018 Ph.D. (Physiology), Faculty of Medicine Chiang Mai University, Chiang Mai, Thailand

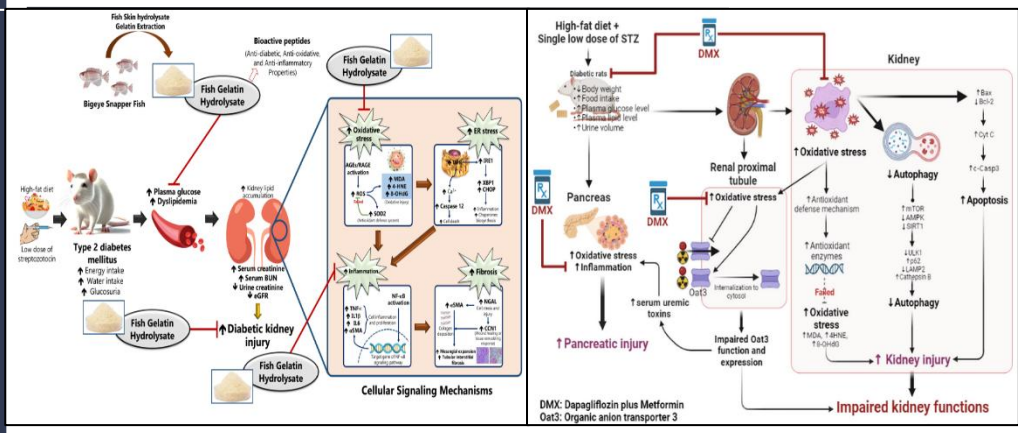
2013-2015 Master of Science (Physiology), Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

2007-2011 Bachelor of Science (Radiologic Technology), Department of Radiogical Technology, Faculty of Associated Medical Sciences, Chiang Mai University, Chiang Mai, Thailand

Research areas of interest

1. Renal and endocrine physiology
2. Cellular and molecular regulation of epithelial transpot
3. Molecular regulation of renal function in health and disease
4. Effects of metabolic syndrome on renal physiology and gut dysbiosis
5. Imaging-related pathophysiology in metabolic diseases
6. Functional foods and bioactive compounds for metabolic disease prevention and management

Research theme



Publication

1. Sutthasupha P, Promsan S, Pengrattanachot N, Phengpol N, Lalichatsakul C, Thongnak L, **Jaikumkao K**, Pichyangkura R, Muanprasat C, Lungkaphin A. Chitosan oligosaccharide improves diabetic nephropathy by attenuating renal fibrogenesis and strengthening intestinal barriers in type 2 diabetic rats. Chem Biol Interact. 2025 Jul 28; 420:111680.
2. Promsan S, Pengrattanachot N, Phengpol N, Sutthasupha P, Thongnak LO, **Jaikumkao K**, Lungkaphin A. Agomelatine Mitigates Kidney Damage in Obese Insulin-Resistant Rats by Inhibiting Inflammation and Necroptosis via the TNF-α/NF-κB/p-RIPK3 Pathway. Int J Mol Sci. 2025 Feb 24;26(5):1940.
3. **Jaikumkao K**, Thongnak L, Htun KT, Pengrattanachot N, Phengpol N, Sutthasupha P, Promsan S, Montha N, Sriburee S, Kothan S, Lungkaphin A. Dapagliflozin and metformin in combination ameliorates diabetic nephropathy by suppressing oxidative stress, inflammation, and apoptosis and activating autophagy in diabetic rats. Biochim Biophys Acta Mol Basis Dis. 2024 Jan;1870(1):166912.
4. Thongnak L, Pengrattanachot N, Promsan S, Phengpol N, Sutthasupha P, **Jaikumkao K**, Lungkaphin A. Metformin mitigates renal dysfunction in obese insulin-resistant rats via activation of the AMPK/PPARα pathway. Arch Pharm Res. 2023 May;46(5):408-422.
5. Thongnak L, Jaruan O, Pengrattanachot N, Promsan S, Phengpol N, Sutthasupha P, **Jaikumkao K**, Sriyotai W, Mahatheeranont S, Lungkaphin A. Resistant starch from black rice, Oryza sativa L. var. ameliorates renal inflammation, fibrosis and injury in insulin resistant rats. Phytother Res. 2023 Mar;37(3):935-948.
6. Htun KT, **Jaikumkao K**, Pan J, Moe Moe AT, Intachai N, Promsan S, Lungkaphin A, Tapanya M, Pasanta D, Tungjai M, Kaewjaeng S, Kim HJ, Kaewkhao J, Lai C, Kothan S. Noninvasive NMR/MRS Metabolic Parameters to Evaluate Metabolic Syndrome in Rats.Diagnostics (Basel). 2022 Jul 4;12(7):1621.
7. Sutthasupha P, Promsan S, Thongnak L, Pengrattanachot N, Phengpol N, Jaruan O, **Jaikumkao K**, Muanprasat C, Pichyangkura R, Chatsudthipong V, Lungkaphin A. Chitosan oligosaccharide mitigates kidney injury in prediabetic rats by improving intestinal barrier and renal autophagy. Carbohydr Polym. 2022 Jul 15;288:119405.
8. **Jaikumkao K**, Promsan S, Thongnak L, Swe MT, Tapanya M, Htun KT, Kothan S, Intachai N, Lungkaphin A. Dapagliflozin ameliorates pancreatic injury and activates kidney autophagy by modulating the AMPK/mTOR signaling pathway in obese rats. J Cell Physiol. 2021 Sep;236(9):6424-6440.