# Jiin-Cherng Yen, Ph.D.

#### Education

- Ph.D., Institute of Pharmacology, School of Life Sciences, National Yang-Ming University
- M.S., Institute of Pharmacology, School of Medicine, National Taiwan University
- B.S., Department of Pharmacy, Taipei Medical College

## **Current Position**

Associate Professor/Director, Department & Institute of Pharmacology, College of Medicine, National Yang Ming Chiao Tung University

Chief Executive Officer, Cross-Domain Integration Promoting Office, National Yang Ming Chiao Tung University

## **Professional Experience**

Associate Dean for General Affairs, National Yang Ming Chiao Tung University Associate Professor, Department of Pharmacology, School of Medicine, National Yang-Ming University Assistant Professor, Department of Pharmacology, School of Medicine, National Yang-Ming University Lecturer, Department of Pharmacology, School of Medicine, National Yang-Ming University

Teaching Assistant, Department of Pharmacology, National Yang-Ming Medical College

# Academic Honors

- 2024 Outstanding Teaching Award, National Yang Ming Chiao Tung University
- 2020 Outstanding Teaching Award, National Yang-Ming University
- 2017 Outstanding Teaching Award, National Yang-Ming University
- 2016 Excellent Teaching Award in PBL, School of Medicine, National Yang-Ming University
- 2015 Excellent Teaching Award, National Yang-Ming University
- 2011 Excellent Teaching Award, College of Medicine, National Yang-Ming

University 2008 Excellent Teaching Award, National Yang-Ming University 2000 The 9<sup>th</sup> Annual Wang Ming-Ning Award

#### **Research Interests**

Our laboratory is a member of the VGH-NYCU Headache Research Group. We focus on investigating the brainstem mechanisms involved in the pathogenesis of migraine and trying to dig out the potential therapeutic target. We apply chemical or optogenetic methods to induce the activation of trigeminovascular system and generation of cortical spreading depression (CSD) as a model of migraine aura in animals. Currently, we investigate the effects of vagus nerve stimulation and its underlying mechanisms on CSD frequency and neuroinflammation, and the involvement of glymphatic system.

#### **Recent Publications**

- 1. Liu TT, Chen SP, Wang SJ, Yen JC. (2024) Vagus nerve stimulation inhibits cortical spreading depression via glutamate-dependent TrkB activation mechanism in the nucleus tractus solitarius. *Cephalalgia* 44(2): 3331024241230466.
- 2. Chen PY, Yen JC, Liu TT, Chen ST, Wang SJ, Chen SP. (2023) Neuronal NLRP3 inflammasome mediates spreading depolarization-evoked trigeminovascular activation. *Brain* 146(7): 2989-3002.
- Lai CT, Chi CW, Wu SH, Shieh HR, Yen JC, Chen YJ. (2022) Midostaurin Modulates Tumor Microenvironment and Enhances Efficacy of Anti-PD-1 against Colon Cancer. *Cancers* 14(19): 4847.
- Liu TT, Morais A, Takizawa T, Mulder I, Simon BJ, Chen SP, Wang SJ, Ayata C, Yen JC. (2022) Efficacy profile of noninvasive vagus nerve stimulation on cortical spreading depression susceptibility and the tissue response in a rat model. *Journal of Headache and Pain* 23(1): 12.
- Su HH, Yen JC, Liao JM, Wang YH, Liu PH, MacDonald IJ, Tsai CF, Chen YH, Huang SS. (2021) In situ slow-release recombinant growth differentiation factor 11 exhibits therapeutic efficacy in ischemic stroke. *Biomedicine & Pharmacotherapy* 144: 112290.
- Su VY, Yang KY, Huang TY, Hsu CC, Chen YM, Yen JC, Chou YC, Chang YL, He CH. (2020) The efficacy of first-line tyrosine kinase inhibitors combined with co-medications in Asian patients with EGFR mutation non-small cell lung cancer. *Scientific Reports* 10(1): 14965.

- Morais A, Liu TT, Qin T, Sadhegian H, Ay I, Yagmur D, Mendes da Silva R, Chung D, Simon B, Guedes R, Chen SP, Wang SJ, Yen JC\*, Ayata C\* (2020) Vagus nerve stimulation inhibits cortical spreading depression exclusively via central mechanisms. *Pain* 161: 1661-1669. (\*equal contribution)
- 8. Chao SH, Chang YL, Yen JC, Liao HT, Wu TH, Yu CL, Tsai CY, Chou YC. (2020) Efficacy and safety of rituximab in autoimmune and microangiopathic hemolytic anemia: a systematic review and meta-analysis *Experimental Hematology* & *Oncology* 9:6.
- Yalcin N, Chen SP, Yu ES, Liu TT, Yen JC, Atalay YB, Qin T, Celik F, van den Maagdenberg AM, Moskowitz MA, Ayata C, Eikermann-Haerter K. (2019) Caffeine does not affect susceptibility to cortical spreading depolarization in mice. *Journal of Cerebral Blood Flow and Metabolism* 39(4): 740-750.
- 10. Su HH, Liao JM, Wang YH, Chen KM, Lin CW, Lee IH, Li YJ, Huang JY, Tsai SK, Yen JC\*, Huang SS\* (2019) Exogenous GDF11 attenuates noncanonical TGF-β signaling to protect the heart from acute myocardial ischemia-reperfusion injury. *Basic Research in Cardiology* 114(3):20. (\*co-correspondence)