

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

Associate Dean for General Affairs, National Yang Ming Chiao Tung University

Professional Experience

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

Research Interests

1. Central regulation of cardiovascular function

We are interested in the study on the physiologic and pharmacologic roles of adrenomedullin (ADM), a 52-amino acid peptide widely expressed in peripheral tissues and in the central nervous system, in the central regulation of cardiovascular functions. We have characterized the distribution of ADM and its receptors in the nucleus tractus solitarii (NTS), and demonstrated an enhancing effect of ADM on baroreflex response (BRR). We also investigate the underlying mechanisms of BRR-enhancing effect of ADM in NTS. Our next research target is the role of hydrogen sulfide (H₂S), an newly found endogenous gasotransmitter in brainstem, in cardiovascular regulation.

2. Pathophysiologic and pharmacologic roles of brainstem in migraine:

We are also interested in the research of migraine. Our lab is included in the VGH-NYCU Headache Research Group. We currently focus on investigating brainstem mechanisms involved in the pathogenesis of migraine and trying to dig out the potential therapeutic target.

Recent Publications

1. 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.
2. 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)
3. 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.
4. 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)
5. Su VY, Liao HF, Perng DW, Chou YC, Hsu CC, Chou CL, Chang YL, Yen JC, Chen TJ, Chou TC. (2018) Proton pump inhibitors use is associated with a lower risk of acute exacerbation and mortality in patients with coexistent COPD and GERD. *International Journal of Chronic Obstructive Pulmonary Disease* 13, 2907-2915.
6. Su HH, Chu YC, Liao JM, Wang YH, Jan MS, Lin CW, Wu CY, Tseng CY, Yen JC*, Huang SS*. (2017) *Phellinus Linteus* Mycelium alleviates myocardial ischemia-reperfusion injury through autophagic regulation. *Frontiers in Pharmacology* 8:175 (*co-correspondence)
7. Chou SJ, Yu WC, Chang YL, Chen WY, Chang WC, Chien Y, Yen JC, Liu YY, Chen SJ, Wang CY, Chen YH, Niu DM, Lin SJ, Chen JW, Chiou SH, Leu HB. (2017) Energy utilization of induced pluripotent stem cell-derived cardiomyocyte in Fabry disease. *International Journal of Cardiology* 232:255-263.

8. Shih HJ, Yen JC, Chiu AW, Chow YC, Pan WH, Huang CJ. (2016) FTY720 inhibits germ cell apoptosis in testicular torsion/detorsion. *Journal of Surgical Research* 202:155-164.
9. Tsai CY, Woung LC, Yen JC, Tseng PC, Chiou SH, Sung YJ, Liu KT, Cheng YH*. (2016) Thermosensitive chitosan-based hydrogels for sustained release of ferulic acid on corneal wound healing. *Carbohydrate Polymers* 135, 308-315.
10. Shih HJ, Yen JC, Chiu AW, Chow YC, Pan WH, Wang TY, Huang CJ. (2015) FTY720 mitigates torsion/detorsion-induced testicular injury in rats. *Journal of Surgical Research* 196:325-331.
11. Huang YH, Yen JC, Lee JJ, Liao JF, Liaw WJ, Huang CJ. (2015) P2X7 is involved in the anti-inflammation effects of levobupivacaine. *Journal of Surgical Research* 193:407-414.