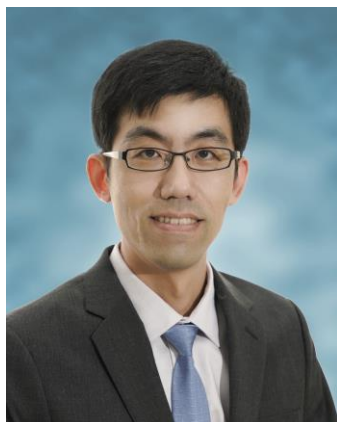


CURRICULUM VITAE

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Group website

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Research areas

1. Functional study of iron channel
2. Tumor immunology
3. Novel anticancer drugs from TCM

Experience

- 2023 – present Associate professor, SKL, Macau University of Science and Technology
- 2017 – 2023 Assistant professor, SKL, Macau University of Science and Technology
- 2016 – 2017 Acting instructor, Neurology Department, University of Washington
Mentor: Nicholas Poolos
- 2015 – 2016 Postdoc Fellow, Pharmacology Department, University of Washington
Mentor: William Catterall,
- 2012 – 2015 Postdoc Fellow, Biophysics & Physiology Department, University of Washington
Mentor: Bertil Hille,
- 2014 – 2014 Visiting scholar in Institute of Biophysics, Chinese Academy of Sciences, Beijing
- 2009 – 2012 Postdoc Fellow in LCMS, the Queen's Medical Center, Honolulu
Mentor: Andrea Fleig & Reinhold Penner
- 2008 – 2009 Graduate Researcher in LCMS, the Queen's Medical Center, Honolulu
- 2005 – 2006 Graduate Research Assistance in School of Life Science in Sun Yat-sen University, P.R. China

Education

- 2006 – 2009 PhD in Physiology, Sun Yat-sen University, P.R. China. Advisor: Wenliang Zhou.
Thesis title: Regulation of Cl⁻ secretion in the epithelial cells and effects of Cl⁻ on TRPM7 channel
- 2003 – 2005 Master in Physiology, Sun Yat-sen University, P.R. China. Advisor: Wenliang Zhou.
Thesis title: Effect of naringenin stimulation of anion secretion and its signal transduction on epithelium of rat's distal colon
- 1999 – 2003 BS Degree in Biological Sciences, Shanxi University, P.R. China

Teaching

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Methodologies

Patch clamp electrophysiology, fluorescent imaging, fluorescence based high through drug screening, immunofluorescence, western blot, qRT-PCR, cell culture, animal handling, brain slicing and primary cell culture.

Peer-reviewed Publications (*corresponding author)

1. Wu W, Zhang R, Chen G, Chen Z, Lin Z, Chen Y, Li J, Liao W, Wang J, Wang X, Huang J, Ma L, **Yu H***. Sappanchalcone suppresses NSCLC by oxidative stress-driven DNA damage and ER stress activation through PIEZO1 modulation. *iScience*. 2025 Nov 14;28(12):114057.
2. Z Yu, S Tang, M Hu, J Peng, Q Fan, L Leng, D Gao, J Guo, **H Yu**, J Huang. Aquatic High-Intensity Interval Training Improves Vascular Function, Whereas Aquatic Moderate-Intensity Continuous Training Lowers Resting Heart Rate in Overweight and Obese Young Adults: A Randomized Controlled Trial. *Journal of Sports Science & Medicine* 24 (3), 666
3. Liu Z, Huang J, Hu M, Cui X, Leng L, Wang K, Wu J, He S, Deng W, Li P, Chen Y, Gao D, **Yu H**, Huang J. Acute high-intensity interval exercise is superior to moderate-intensity continuous exercise in enhancing endothelial function and its associated biomarkers in sedentary young individuals: the possible involvement of lactate. *J Exerc Sci Fit*. 2025 Jan;23(1):60-68.
4. Zhang R, Liao W, Chen X, Wang J, Li J, Chen G, Wu W, Wang X, Zhang Y, Chen Z, Zhu X, Lin Z, Zhu Y, Ma L, **Yu H***. PKC α regulates the secretion of PDL1-carrying small extracellular vesicles in a p53-dependent manner. *Cell Death Dis*. 2025 Jan 14;16(1):19.
5. Liao W, Zhang R, Chen G, Zhu X, Wu W, Chen Z, Jiang C, Lin Z, Ma L, **Yu H***. Berberine synergises with ferroptosis inducer sensitizing NSCLC to ferroptosis in p53-dependent SLC7A11-GPX4 pathway. *Biomed Pharmacother*. 2024 Jun 7;176:116832.
6. Jiang C, Chen Z, Xiong H, Yang X, Liao W, Chen G, Huang C, Zhu G, **Yu H***, Ma L. Lycium barbarum berry extract improves female fertility against aging-related oxidative stress in the ovary. *Food Funct*. 2024 Sep 30;15(19):9779-9795.
7. Chenyu Jiang,Ziyu Chen,Weilin Liao,Ren Zhang,Geer Chen,Lijuan Ma*, Haijie Yu*. The Medicinal Species of the Lycium Genus (Goji Berries) in East Asia: A Review of Its Effect on Cell Signal Transduction Pathways. *Plants*, 2024, 13(11), 1531
8. Li J, Wu Z, Chen G, Wang X, Zhu X, Zhang Y, Zhang R, Wu W, Zhu Y, Ma L, Yu H*. Formosanin C inhibits non-small-cell lung cancer progression by blocking MCT4/CD147-mediated lactate export. *Phytomedicine*, 2023 Jan, 109:154618.
9. Chen X, Li J, Zhang R, Zhang Y, Wang X, Leung EL, Ma L, Wong VKW*, Liu L*, Neher E*, Yu H*. Suppression of PD-L1 release from small extracellular vesicles promotes systemic anti-tumor immunity by targeting ORAI1 calcium channels. *Journal of Extracellular Vesicles*, 2022. Dec;11(12):e12279.
10. Chen G, Zhu X, Li J, Zhang Y, Wang X, Zhang R, Qin X, Chen X, Wang J, Liao W, Wu Z, Lu L, Wu W, Yu H*, Ma L*. Celastrol inhibits lung cancer growth by triggering histone acetylation and acting synergically with HDAC inhibitors. *Pharmacol Res*. 2022 Oct 3:106487.
11. Leung EL*, Huang J, Zhang J, Zhang J, Wang M, Zhu Y, Meng Z, Yu H, Neher E, Ma L*, Yao X*. Novel Anticancer Strategy by Targeting the Gut Microbial Neurotransmitter Signaling to Overcome Immunotherapy Resistance. *Antioxid Redox Signal*. 2022, Nov 1. doi: 10.1089/ars.2021.0243. Online ahead of print.
12. Chen J, Luo SF, Yuan X, Wang M, Yu H, Zhang Z, Yang YY. Diabetic kidney disease-predisposing proinflammatory and profibrotic genes identified by weighted gene co-expression network analysis (WGCNA). *J Cell Biochem*. 2022, 123(2):481-492
13. Wang X, Liu Z, Ma L, Yu H*. Ferroptosis and its emerging role in tumor. *Biophysics Reports*, 2021, 7(4): 280-294.
14. Li J, Zhang Y, Chen X, Ma L, Li P*, Yu H*. Protein phase separation and its role in chromatin organization and diseases. *Biomed Pharmacother*. 2021 Jun;138:111520
15. Yu H, Yuan C, Westenbroek RE, Catterall WA. The AKAP Cypher/Zasp contributes to β -adrenergic/PKA stimulation of cardiac CaV1.2 calcium channels. *J Gen Physiol*. 2018 Jun 4;150(6):883-889.

16. Traynor-Kaplan A, Kruse M, Dickson EJ, Dai G, Vivas O, Yu H, Whittington D, Hille B. Fatty-acyl chain profiles of cellular phosphoinositides. *Biochim Biophys Acta*. 2017 Feb 9;1862(5):513-522.
17. Yang L, Dai DF, Yuan C, Westenbroek RE, Yu H, West N, de la Iglesia HO, Catterall WA. Loss of β -adrenergic-stimulated phosphorylation of CaV1.2 channels on Ser1700 leads to heart failure. *Proc Natl Acad Sci U S A*. 2016 Dec 6;113(49):E7976-E7985.
18. Yu H#, Benitez SG#, Jung SR, Farias Altamirano LE, Kruse M, Seo JB, Koh D, Muñoz EM, Hille B. GABAergic signaling in the rat pineal gland. *J Pineal Res*. 2016 Aug;61(1):69-81. (# equal contribution)
19. Dai G, Yu H, Kruse M, Traynor-Kaplan A and Hille B. Osmoregulatory inositol transporter SMIT1 modulates electrical activity by adjusting PI(4,5)P2 levels. *Proc Natl Acad Sci U S A*. 2016 Jun 7;113(23):E3290-9
20. Xu X, Ali S, Li Y, Yu H, Zhang M, Lu J, Xu T. 2-Aminoethoxydiphenyl Borate Potentiates CRAC Current by Directly Dilating the Pore of Open Orai1. *Sci Rep*. 2016 Jul 4;6:29304.
21. Yu H, Dickson EJ, Jung SR, Koh DS, Hille B. High membrane permeability for melatonin. *J Gen Physiol*. 2016 Jan;147(1):63-76
22. Yu H, Seo JB, Jung SR, Koh DS, Hille B. Noradrenaline upregulates T-type calcium channels in rat pinealocytes. *J Physiol*. 2015 Feb 15;593(4):887-904
23. Zhang Z, Faouzi M, Huang J, Geerts D, Yu H, Fleig A, Penner R. N-Myc-induced up-regulation of TRPM6/TRPM7 channels promotes neuroblastoma cell proliferation. *Oncotarget*. 2014 Sep 15;5(17):7625-34.
24. Zhang Z#, Yu H#, Huang J, Faouzi M, Schmitz C, Penner R, Fleig A. The TRPM6 kinase domain determines the Mg²⁺-ATP sensitivity of TRPM7/M6 heteromeric ion channels. *J Biol Chem*. 2014 Feb 21;289(8):5217-27. (# equal contribution)
25. Yu H#, Zhang Z#, Lis A, Penner R, Fleig A. TRPM7 is regulated by halides through its kinase domain. *Cell Mol Life Sci*. 2013 Aug;70(15):2757-71. (# equal contribution)
26. Yu H, Chen S, Yang Z, Pan A, Zhang G, Shan J, Tang X, Zhou W. Trimethyltin chloride induced chloride secretion across rat distal colon. *Cell Biol Int*. 2009 Dec 16;34(1): 99-108.
27. Yang Z#, Yu H#, Pan A, Du J, Ruan Y, Ko W, Chan H, Zhou W. Cellular mechanisms underlying the laxative effect of flavonol naringenin on rat constipation model. *PLoS One* 2008 Oct 3;3(10):e3348. (# equal contribution)
28. Yang Z, Pan A, Ruan Y, Yu H, Wu Z, Xiang H, Zhou W. Cellular mechanism of adrenalin stimulated chloride secretion via beta-adrenoceptor in T84 cells. *Cell Biol Int*. 2008 Jun;32(6):679-87. Epub 2008 Feb 3.

References

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