

## CURRICULUM VITAE

# Haijie Yu, Ph.D.



**Position:** Associate Professor

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### Research areas

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

### Experience

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- 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

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- 2006 – 2009 PhD in Physiology, Sun Yat-sen University, P.R. China. Advisor: Wenliang Zhou.  
Thesis title: Regulation of Cl<sup>-</sup> secretion in the epithelial cells and effects of Cl<sup>-</sup> 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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Pathophysiology, Toxicology, Chinese medicine pharmacology, Molecular pharmacology,  
Microbiology and immunology

## Methodologies

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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)

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1. 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.
2. 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.
3. 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.
4. 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.
5. 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
6. Wang X, Liu Z, Ma L, **Yu H\***. Ferroptosis and its emerging role in tumor. *Biophysics Reports*, 2021, 7(4): 280-294.
7. 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
8. **Yu H**, Yuan C, Westenbroek RE, Catterall WA. The AKAP Cypher/Zasp contributes to  $\beta$ -adrenergic/PKA stimulation of cardiac CaV1.2 calcium channels. *J Gen Physiol.* 2018 Jun 4;150(6):883-889.
9. 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.
10. Yang L, Dai DF, Yuan C, Westenbroek RE, **Yu H**, West N, de la Iglesia HO, Catterall WA. Loss of  $\beta$ -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.
11. **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)
12. 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
13. 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.

14. **Yu H**, Dickson EJ, Jung SR, Koh DS, Hille B. High membrane permeability for melatonin. *J Gen Physiol.* 2016 Jan;147(1):63-76
15. **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
16. 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.
17. Zhang Z#, **Yu H#**, Huang J, Faouzi M, Schmitz C, Penner R, Fleig A. The TRPM6 kinase domain determines the Mg·ATP sensitivity of TRPM7/M6 heteromeric ion channels. *J Biol Chem.* 2014 Feb 21;289(8):5217-27. (# equal contribution)
18. **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)
19. **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.
20. 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)
21. 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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William Catterall	My supervisor, University of Washington Department of Pharmacology University Box 357290 Seattle, WA 98195-7290, USA. Email: wcatt@uw.edu Tel: 206 543 1925
Andrea Fleig	My supervisor, Director, Clinical Research, Office of Research and Development, the Queen's Medical Center, Honolulu, USA. Email: afleig@hawaii.edu Tel: 808 691 7931
Reinhold Penner	My supervisor, Full Researcher and Program Director, Cancer Biology, University of Hawaii, Honolulu, USA. Email: rpenner@hawaii.edu Tel: (808) 585-5366