

Curriculum vitae

Prof. Dr. Ye Yu

ORCID: 0000-0002-4054-8543

Education

2001-2006

Integrated Master's-PhD Program; Doctor of Science (Sc.D.)

Research Focus: Biochemistry and Pharmacology of GPCRs

Supervisor: Prof. Dr. Rui Wang

Professional Appointments

Since 2025 Professor/Principal Investigator/Doctoral Supervisor

Lanzhou University

2018 - 2025 Professor/Principal Investigator/Doctoral Supervisor

China Pharmaceutical University

2015 - 2016 Senior Visiting Research Scholar

Baylor College of Medicine (BCM), Houston, USA

2012 - 2018 Professor/Principal Investigator/Doctoral Supervisor

Shanghai Jiao Tong University School of Medicine (SJTUSM)

2006 - 2010 Postdoc at Chinese Academy of Sciences Shanghai Branch

Research interests

Dr. Yu's group is dedicated to unraveling the biophysical foundations of transmembrane signaling in membrane proteins that drive major neurological, immune, and cardiovascular diseases. We couple these efforts with deep investigations into disease pathogenesis, the pursuit of novel therapeutic compounds, and the creation of innovative methodologies designed to expand the frontiers of biomedical research.

Representative Published Papers

1. **Mechanism of capsaicin entry into buried vanilloid sites in TRPV1.** (2025). Meng-Yang Sun, Yu-Jing Bian, Xiao-Ying Chen, Xue Zhang, Ming Li, Bo-Ying Zhou, Yang Yang, Yi-Zhe Huang, Rui Yang, Yu-Hao Gao, Wen-Wen Cui, Ya-Qi Wang, Si-Jia Zhu, Peng Cao, Chang-Zhu Li, Michael X. Zhu, Yun-Tao Lei*, Fan Yang* & Ye Yu*. *Nat Chem Biol.* 2025 Jul. 23

2. **Cancer Immunotherapy via Disruption of Integrin $\alpha\text{v}\beta 3$ and CD47 Costabilization on Cancer Cell Surface.** (2025). Peng-Cheng Yu, Chen-Xi Yue, Wen-Zhong Dong, Cui-Yun Hao, Yi-Fan Qiao, Di Liu, Xin Zhang, Qi Zhan, Jia-Bao Yao, Dong-Ping Wang, Peng Cao, Ying-Zhe Fan*, Ye Yu*. *Adv Sci (Weinh).* 2025 Oct. 30: e01602. DOI:10.1002/advs.202501602

3. **Structural basis for inositol pyrophosphate gating of the phosphate channel XPR1.** (2024) Yi Lu, Chen-Xi Yue, Li Zhang, Deqiang Yao, Ying Xia, Qing Zhang, Xinchun Zhang, Shaobai Li, Yafeng Shen, Mi Cao, Chang-Run Guo, An Qin, Jie Zhao, Lu Zhou, Ye Yu*, Yu Cao*. *Science*; 2024.11.15 386 (6723) :eadp3252

4. **Finely ordered intracellular domain harbors an allosteric site to modulate physiopathological function of P2X3 receptors.** (2024). Lin, Y. Y., Lu, Y., Li, C. Y., Ma, X. F., Shao, M. Q., Gao, Y. H., Zhang, Y. Q., Jiang, H. N., Liu, Y., Yang, Y., Huang, L. D., Cao, P., Wang, H. S. *, Wang, J., * & Yu, Y*. *Nat Commun*. 2024 Sep 3;15(1):7652

5. **TRPV1 analgesics disturb core body temperature via a biased allosteric mechanism involving conformations distinct from that for nociception.** (2024) Yi-Zhe Huang, Jing-Xian Ma, Yu-Jing Bian, Qin-Ru Bai 1, Yu-Hao Gao, Shu-Ke Di, Yun-Tao Lei, Hui Yang, Xiao-Na Yang, Chang-Yan Shao, Wen-Hui Wang, Peng Cao, Chang-Zhu Li, Michael X Zhu, Meng-Yang Sun*, Ye Yu*; *Neuron*. 2024.6.5;112(11):1815-1831.e4

6. **Chronic cough relief by allosteric modulation of P2X3 without taste disturbance.** (2023) Chang-Run Guo, Zhong-Zhe Zhang, Xing Zhou, Meng-Yang Sun, Tian-Tian Li, Yun-Tao Lei, Yu-Hao Gao, Qing-Quan Li, Chen-Xi Yue, Yu Gao, Yi-Yu Lin, Cui-Yun Hao, Chang-Zhu Li, Peng Cao, Michael X Zhu, Ming-Qiang Rong, Wen-Hui Wang*, Ye Yu*. *Nat Commun*. 2023 .9.20;14(1):5844

7. **Vanilloid agonist-mediated activation of TRPV1 channels requires coordinated movement of the S1–S4 bundle rather than a quiescent state.** (2022) Meng-Yang Sun, Xue Zhang, Peng-Cheng Yu, Di Liu, Yang Yang, Wen-Wen Cui, Xiao-Na Yang, Yun-Tao Lei, Xing-Hua Li, Wen-Hui Wang, Peng Cao, Heng-Shan Wang, Michael X Zhu, Chang-Zhu Li, Rui Wang*, Ying-Zhe Fan*, Ye Yu*; *Sci Bull (Beijing)*. 2022.5.30;67(10):1062-1076

8. **Bone marrow niche ATP levels determine leukemia-initiating cell activity via P2X7 in leukemic models.** (2021) Xiaoxiao He, Jiangbo Wan, Xiaona Yang, Xiuze Zhang, Dan Huang, Xie Li, Yejun Zou, Chiqi Chen, Zhuo Yu, Li Xie, Yaping Zhang, Ligen Liu , Shangang Li , Yuzheng Zhao, Hongfang Shao*, Ye Yu*, Junke Zheng*. *J Clin Invest*. 2021.2.15;131(4):e140242

9. **Druggable negative allosteric site of P2X3 receptors.** (2018) Jin Wang, Yao Wang, Wen-Wen Cui, Yichen Huang, Yang Yang, Yan Liu, Wen-Shan Zhao, Xiao-Yang Cheng, Wang-Sheng Sun, Peng Cao, Michael X. Zhu, Rui Wang*, Motoyuki Hattori*, and Ye Yu*. *Proc Natl Acad Sci U S A*. 2018 May 8;115(19):4939-4944

10. **Relative motions between left flipper and dorsal fin domains favour P2X4 receptor activation.** (2014) Wen-Shan Zhao, Jin Wang, Xiao-Juan Ma, Yang Yang, Yan Liu, Li-Dong Huang, Ying-Zhe Fan, Xiao-Yang Cheng, Hong-Zhuan Chen, Rui Wang *, and Ye Yu*; *Nat Commun*. 2014 Jun 19;5:4189

11. **A nonproton ligand sensor in the acid-sensing ion channel.** (2010) Ye Yu, Zhi Chen, Wei-

Guang Li, Hui Cao, En-Guang Feng, Fang Yu, Hong Liu, Hualiang Jiang*, and Tian-Le Xu*; *Neuron*.
2010 Oct 6;68(1):61-72