

# Xueying Wu, PhD

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## Education

BS in Life Sciences, NanKai University, 2004-2008.

PhD in Life Sciences, Joint Program between Beijing Normal University and National Institute of Biological Sciences, Beijing, 2008-2013.

## Professional Experience

Postdoctoral Fellow, School of Life Sciences, Peking University, 2013–2016.

Assistant Professor, Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, 2016–2020.

Associate Professor, Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, 2021–Present.

## Publications

[1] Qian Zhang<sup>#</sup>, **Xueying Wu<sup>#</sup>**, Peng Chen<sup>#</sup>, Limeng Liu, Nan Xin, Ye Tian<sup>\*</sup>, and Andrew Dillin<sup>\*</sup>. Mitochondrial unfolded protein response is mediated cell-non-autonomously by retromer-dependent Wnt signaling. **Cell**, 2018. (Co-first)

[2] Di Zhu<sup>#</sup>, **Xueying Wu<sup>#</sup>**, Jun Zhou, Xinyu Li, Xiahe Huang, Jiasheng Li, Junbo Wu, Qian Bian, Yingchun Wang, Ye Tian<sup>\*</sup>. NuRD Mediates Mitochondrial Stress-Induced Longevity via Chromatin Remodeling in Response to Acetyl-CoA Level. **Science advances**, 2020. (Co-first)

[3] Yusheng Cai<sup>#</sup>, Wei Song<sup>#</sup>, Jiaming Li<sup>#</sup>, Ying Jing<sup>#</sup>, Chuqian Liang<sup>#</sup>, Liyuan Zhang<sup>#</sup>, Xia Zhang<sup>#</sup>, Wenhui Zhang<sup>#</sup>, Beibei Liu<sup>#</sup>, Yongpan An<sup>#</sup>, Jingyi Li<sup>#</sup>, Baixue Tang<sup>#</sup>, Siyu Pei<sup>#</sup>, **Xueying Wu<sup>#</sup>**, Yuxuan Liu<sup>#</sup>, Cheng-Le Zhuang<sup>#</sup>, Yilin Ying<sup>#</sup>, Xuefeng Dou<sup>#</sup>, Yu Chen<sup>#</sup>, Fu-Hui Xiao<sup>#</sup>, Dingfeng Li<sup>#</sup>, Ruici Yang<sup>#</sup>, Ya Zhao<sup>#</sup>, Yang Wang<sup>#</sup>, Lihui Wang<sup>#</sup>, Yujing Li<sup>#</sup>, Shuai Ma<sup>\*</sup>, Si Wang<sup>\*</sup>, Xiaoyuan Song<sup>\*</sup>, Jie Ren<sup>\*</sup>, Liang Zhang<sup>\*</sup>, Jun Wang<sup>\*</sup>, Weiqi Zhang<sup>\*</sup>, Zhengwei Xie<sup>\*</sup>, Jing Qu<sup>\*</sup>, Jianwei Wang<sup>\*</sup>, Yichuan Xiao<sup>\*</sup>, Ye Tian<sup>\*</sup>, Gelin Wang<sup>\*</sup>, Ping Hu<sup>\*</sup>, Jing Ye<sup>\*</sup>, Yu Sun<sup>\*</sup>, Zhiyong Mao<sup>\*</sup>, Qing-Peng Kong<sup>\*</sup>, Qiang Liu<sup>\*</sup>, Weiguo Zou<sup>\*</sup>, Xiao-Li Tian<sup>\*</sup>, Zhi-Xiong Xiao<sup>\*</sup>, Yong Liu<sup>\*</sup>, Jun-Ping

Liu\*, Moshi Song\*, Jing-Dong J. Han\* and Guang-Hui Liu\*. The landscape of aging. **Science China Life Sciences**, 2022. (Co-first)

[4] Xueying Wu, Yupeng Shi, Jingrui Li, Le Xu, Yuda Fang, Xin Li, Yijun Qi. A role for the RNA-binding protein MOS2 in microRNA maturation in Arabidopsis. **Cell research**, 2013. (First)

[5] Yangli Liu#, Jun Zhou#, Ning Zhang, Xueying Wu, Qian Zhang, Wenfeng Zhang, Xinyu Li, and Ye Tian\*. Two sensory neurons coordinate the systemic mitochondrial stress response via GPCR signaling in *C. elegans*. **Developmental Cell**, 2022.

[6] Xinyu Li, Jiasheng Li, Di Zhu, Ning Zhang, Xusheng Hao, Wenfeng Zhang, Qian Zhang, Yangli Liu, Xueying Wu, and Ye Tian\*. Protein disulfide isomerase PDI-6 regulates Wnt secretion to coordinate inter-tissue UPR<sup>mt</sup> activation and lifespan extension in *C. elegans*. **Cell Reports**, 2022.

[7] Qian Zhang, Zihao Wang, Wenfeng Zhang, Qingbo Wen, Xinyu Li, Jun Zhou, Xueying Wu, Yongqing Guo, Yangli Liu, Changshuo Wei, Wenfeng Qian, Ye Tian. The Memory of Neuronal Mitochondrial Stress is Inherited Transgenerationally via Elevated Mitochondrial DNA Levels. **Nature Cell Biology**, 2021.

[8] Liang Wu, Qingqing Zhang, Huanyu Zhou, Fangrui Ni, Xueying Wu, Yijun Qi. Rice MicroRNA effector complexes and targets. **Plant Cell**, 2009.

## Research Interests

My research interests focuses on the molecular mechanisms of mitochondrial homeostasis, cellular metabolism, and their roles in organismal aging. I am particularly interested in:

- Investigating how mitochondrial dysfunction influences systemic cellular responses and organismal aging, particularly through signaling pathways such as Wnt and GPCRs.
- Exploring the epigenetic regulation of longevity, with an emphasis on how mitochondrial metabolites, such as acetyl-CoA, modulate chromatin structure via complexes like NuRD.
- Understanding the cross-talk between mitochondrial stress and neurodegenerative diseases, and developing potential therapeutic strategies

targeting these pathways.

In future studies, I aim to expand my research to explore the integration of mitochondrial homeostasis and stress responses in different tissue and their implications for age-related diseases and longevity.