

姜博晨

上海交通大学长聘教轨副教授

E-mail: bochenj@sjtu.edu.cn

出生年月: 1991 年 2 月

教育经历:

2010.09-2014.07 安徽农业大学 农学学士

2014.09-2019.06 中国农业大学 植物学博士 (导师: 杨淑华教授)

工作经历:

2019.07-2022.10 加州大学洛杉矶分校博士后 (导师: 林辰涛教授)

2022.10-2024.07 芝加哥大学博士后 (导师: 何川教授)

2024.07-至今 上海交通大学长聘教轨副教授

研究方向:

姜博晨博士, 上海交大学生命科学技术学院长聘教轨副教授, 博士生导师, 2023 年国家海外高层次人才计划、2024 年上海市启明星计划 (A 类)。2019 年获得中国农业大学博士学位; 2019 年至 2024 年分别在加州大学洛杉矶分校和芝加哥大学从事博士后研究; 2024 年 7 月起担任上海交通大学长聘教轨副教授。姜博晨博士长期从事环境信号光温互作及 RNA 表观修饰在植物生长发育和逆境响应中的调控机制研究, 以拟南芥、大豆和玉米等为研究对象, 研究光与温度信号对植物产量的影响。近年来研究成果以第一作者或通讯作者 (含共同) 发表在 *Nature Plants* (两篇)、*Science Advances*、*Molecular Plant*、*PNAS* 和 *New Phytologist* 等期刊, 其中四篇入选 ESI 高被引论文, 并被 *Nature Plants*、*Trends in Plant Science* 和 *Faculty Opinion* 等专评 7 次, 2024 年 *New Phytologist* Tansley Medal 亚军 (runner up); 担任 *The innovation*, *aBIOTECH* 和 *Frontiers in Bioscience-Landmark* 青年编委, *Plant Communications*; *aBIOTECH*, *Plant, Cell & Environment*; *Horticulture Research*; *Plant Science*; *Plant cell reports*; *BMC plant biology*; *Frontiers in Plant Science*; *Journal of Plant Physiology* 等学术期刊审稿人。

发表文章及专利 (#同等贡献和 *通讯作者):

1. **Jiang, B. #***, Zhong Z.#, Gu, L.#, Zhang X., Wei, J., Ye, C., Lin, G., Qu, G., Xiang, X., Chen, W., Hummel, M., Bailey-Serres, J., He C., Wang X.* and Lin, C.* (2023). Light-induced LLPS of the CRY2/SPA1/FIO1 complex regulating mRNA methylation and chlorophyll homeostasis in *Arabidopsis*. ***Nature Plants* 9**, 2042–2058 (**Invited with Research Briefing, ESI Highly cited Paper**)
2. **Jiang, B. #***, Zhong, Z. #, Su, J. #, Zhu, T., Yueh, T., Bragasin, J., Bu, V., Zhou, C., Lin, C., and Wang, X*. (2023). Co-condensation with photoexcited cryptochromes facilitates MAC3A to positively control hypocotyl growth in *Arabidopsis*. ***Science Advances* 9**, eadh4048.
3. **Jiang B. *** (2024). Light-induced cryptochrome 2 liquid–liquid phase separation and mRNA methylation. ***New Phytologist* 244**, 6, 2163–2169. (**Invited Tansley insight**)

4. Fu, D., & **Jiang, B.** * (2025). Liquid-liquid phase separation regulates gene expression in plants. ***Agriculture Communications***, 100084. (**Accepted as cover story**)
5. Fu, D., Wang H., **Jiang, B.** * (2025). Molecular mechanisms and crop improvement potential of N⁶-methyladenosine RNA methylation in plants. ***aBIOTECH*** (**Accepted**)
6. Wang, X. #, **Jiang, B.** #, Gu, L. #, Chen, Y., Mora, M., Zhu, M., Noory, E., Wang, Q. *, and Lin C. * (2021). A photoregulatory mechanism of the circadian clock in *Arabidopsis*. ***Nature Plants*** 7, 1397–1408. (**Cover story** and Highlighted with a News & Views in *Nature Plants*) (**ESI Highly cited Paper**, recommended by *Faculty opinions*)
7. **Jiang, B.** #, Shi, Y. #, Peng, Y., Jia, Y., Yan, Y., Dong, X., Li, H., Dong, J., Li, J., Gong, Z., and Yang, S. * (2020). Cold-induced CBF-PIF3 interaction enhances freezing tolerance by stabilizing the phyB thermosensor in *Arabidopsis*. ***Molecular Plant*** 13, 894-906. (Highlighted with a Spotlight article in *Trends in Plant Science*) (**ESI Highly cited Paper**)
8. **Jiang, B.** #, Shi, Y. #, Zhang, X., Xin, X., Qi, L., Guo, H., Li, J. *, and Yang, S. # (2017). PIF3 is a negative regulator of the CBF pathway and freezing tolerance in *Arabidopsis*. ***Proc. Natl. Acad. Sci. USA*** 114, E6695-E6702. (Highlighted with a News & Views in *Nature Plants* and a Spotlight article in *Trends in Plant Science*) (**ESI Highly cited Paper**)
9. Wang, P., Ye, C., Zhao, M., **Jiang, B.**, & He, C. (2025). Small-molecule-catalysed deamination enables transcriptome-wide profiling of N⁶-methyladenosine in RNA. ***Nature Chemistry***, 1-11.
10. Gao, B., **Jiang, B.**, Zou, Z., Liu, B., Liu, W., Chen, L., ... & He, C. (2025). Nuclear 2'-O-methylation regulates RNA splicing through its binding protein FUBP1. *bioRxiv*, 2025-04.
11. Li, H., Wang, G., Ye, C., Zou, Z., **Jiang, B.**, Yang, F., ... & He, C. (2025). Quantitative RNA pseudouridine maps reveal multilayered translation control through plant rRNA, tRNA and mRNA pseudouridylation. ***Nature Plants***, 1-14.
12. Qu G., **Jiang, B.**, and Lin, C. * (2023). The dual-action mechanism of *Arabidopsis* cryptochromes. ***Journal of Integrative Plant Biology*** 66(5): 883-896. (**ESI Highly cited Paper**)
13. Peng, Y. #, Ming, Y. #, **Jiang, B.**, Zhang, X., Fu, D., Lin, Q., ... & Yang, S. # (2024). Differential phosphorylation of Ca²⁺-permeable channel CYCLIC NUCLEOTIDE-GATED CHANNEL20 modulates calcium-mediated freezing tolerance in *Arabidopsis*. ***The Plant Cell***, 36(10), 4356-4371. (**ESI Highly cited Paper**)
14. Wang G, Li H, Ye C, He K, Liu S, **Jiang B.**, Ge R, Gao B, Wei J, Zhao Y, et al. (2024) Quantitative profiling of m⁶A at single base resolution across the life cycle of rice and *Arabidopsis*. ***Nat Communications*** 15(1): 4881.
15. Zhang, L. *, Ju, C. **Jiang, B.**, and He, C. (2023). Base-resolution quantitative DAMM-seq for mapping RNA methylations in tRNA and mitochondrial polycistronic RNA. *Enzymes in RNA Science and Biotechnology: Part B*, pp. 39-54. 10.1016/bs.mie.2023.08.001. (Book chapter)
16. Dong, X., Yan, Y., **Jiang, B.**, Shi, Y., Jia, Y., Cheng, J., Shi, Y., Kang, J., Li, H., Zhang, D., et al. (2020). The cold response regulator CBF1 promotes *Arabidopsis* hypocotyl growth at ambient temperatures. ***EMBO Journal***. 39, e103630.
17. Yan, Y., Li, C., Dong, X.J., Li, H., Zhang, D., Zhou, Y.Y., **Jiang, B.C.**, Peng, J., Qin, X.Y., Cheng, J.K., et al. (2020). MYB30 is a key negative regulator of *Arabidopsis* photomorphogenic development that promotes PIF4 and PIF5 protein accumulation in the Light. ***Plant Cell*** 32, 2196-2215.

CN108624567A_植物 EBF1 蛋白及其编码基因在构建耐低温植物中的应用, 发明

人：杨淑华；施怡婷；姜博晨；张晓燕；郭红卫

CN108623664A_植物 EBF2 蛋白及其编码基因在构建耐低温植物中的应用，

发明人：杨淑华；施怡婷；姜博晨；张晓燕；郭红卫

获奖情况

2024 New Phytologist Tansley Medal (Runner up和Tansley insight邀请)

2019 北京市优秀研究生

2018 中国农业大学一等博士奖学金

2017 研究生国家奖学金

2017 中国农业大学校长奖学金

2017 先正达奖学金

2014 安徽省优秀毕业生