郎罂博简历

学习经历:

2009-09 至 2014-12，普渡大学，植物分子遗传学，　博士

2005-09 至 2009-06，北京师范大学，生物技术，　学士

2014-12 至 2016-10，美国普渡大学

工作经历:

2022-10 至今，南方科技大学,生命科学学院 前沿生物技术研究院,教授

2020-05 至 2022-9，中国科学院分子植物科学卓越创新中心，研究员

2016-10 至 2020-04，中国科学院上海生命科学研究院，上海植物逆境生物学研究中心，研究员

主持承担的主要科研项目

1.科技部,国家重点研发计划项目(2022.11-2027.10),生鲜农产品产后品质劣变腐败机制研究项目子课题果实色泽芳香品质劣变的表观遗传与转录协同调控机制(2022YFD2100101),100 万元,(子课题负责人,在研)

2.科技部,国家重点研发计划项目(2022.11-2027.10),生鲜农产品产后品质劣变腐败机制研究项目子课题果实质地风味劣变表观遗传与转录协同调控(2022YFD2100102),40 万元(子课题负责人,在研)

3.科技部,国家重点研发计划项目(2021.12-2026.11),蛋白质组大数据开发与开放共享平台建立课题(2021YFA1300404)，130 万元(核心成员,在研)

4.中国科学院,中国科学院战略性先导科技专项 (B类)(2018.06-2022.12) ，植物特化性状形成的分子基础及定向发育调控项目果实中低温胁迫响应的表观遗传调控机制子课题(XDB27040103),500 万元，(子课题负责人,已结题)

5.科技部,国家重点研发计划项目(2018.07-2022.12)，果树果实品质形成与调控项目开展 DNA 甲基化与果实糖酸比相关性的研究子课题(2018YFD1000201)，78 万元,(子课题负责人,已结题)

6.中组部,国家引才计划青年项目，海外高层次人才引进青年项目,

2017-12 至 2021-12, 300 万元 ,(主持,已结题)

代表性论文:

1. Qingfeng Niu, Siqun Wu, Hongtao Xie, Qi Wu, Ping Liu, Yaping Xu, **Zhaobo Lang***. Efficient A ·T to G ·C Base Conversions in Dicots Using Adenine Base Editors Expressed under the Tomato EF1α Promoter. Plant Biotechnology Journal, 2023 Jan, 21(1): 5-7 (IF=13.263 通讯作者)

2. Yuyun Zhang, Zijuan Li, Jinyi Liu, Yu'e Zhang, Luhuan Ye, Yuan Peng, Haoyu Wang, Huishan Diao, Yu Ma, Meiyue Wang, Yilin Xie, Tengfei Tang, Yili Zhuang, Wan Teng, Yiping Tong, Wenli Zhang, **Zhaobo Lang***, Yongbiao Xue, Yijing Zhang*. Transposable elements orchestrate subgenome-convergent and -divergent transcription in common wheat, Nature Communications, 2022 Nov 14; 13(1): 6940(IF=17.694 共同通讯作者)

3. Zhiqiang Duan, Xiaoliang Yang, Xingkun Ji, Ying Chen, Xiaomu Niu, Anping Guo, Jian-Kang Zhu, Feng Li*, **Zhaobo Lang***, Hui Zhao*. Cas12a-Based On-Site, Rapid Detection of Genetically Modified Crops, Journal of Integrative Plant Biology, 2022 Oct; 64(10): 1856-1859 (IF=9.106 共同通讯作者)

4. Ying Gao, Yujing Lin, Min Xu, Hanxiao Bian, Chi Zhang, Jingyu Wang, Hanqing Wang, Yaping Xu, Qingfeng Niu, Jinhua Zuo, Da-Qi Fu, Yu Pan, Kunsong Chen, Harry Klee, **Zhaobo Lang***, Bo Zhang*. The role and interaction between transcription factor NAC-NOR and DNA demethylase SlDML2 in the biosynthesis of tomato fruit flavor volatiles, New Phytologist, 2022 Sep; 235(5): 1913-1926 (IF=10.323 共同通讯作者)

5. Pei Huang, Huan Huang, Xueqiang Lin, Pan Liu, Lun Zhao, Wen-Feng Nie, Jian-Kang Zhu, **Zhaobo Lang***. MSI4/FVE is required for accumulation of 24-nt siRNAs and DNA methylation at a subset of target regions of RNA-directed DNA methylation, the Plant Journal, 2021 Oct; 108(2): 347-357 (IF=7.091 通讯作者)

6. Qingfeng Niu, Zhe Song, Kai Tang, Lixian Chen, Lisi Wang, Ting Ban, Zhongxin Guo, Chanhon g Kim, Heng Zhang, Cheng-Guo Duan, Huiming Zhang, Jian-Kang Zhu, Jiamu Du, **Zhaobo Lang***. A histon e H3K4me1-specific binding protein is required for

siRNA accumulation and DNA methylation at a subset of loci targeted by RNA-directed DNA methylation, Nature Comunications, 2021 Jun 7;12(1):3367 (IF=17.694 共同通讯作者)

7. Dengguo Tang, Philippe Gallusci, **Zhaobo Lang**. Fruit development and epigenetic modifications. New Phytologist, 2020 Nov;228(3):839-844(IF=10.323 通讯作者)

8. Qingfeng Niu, Siqun Wu, Xiaoxuan Yang, Ping Liu, Yaping Xu, **Zhaobo Lang***. Expanding the Scope of CRISPR/Cas9-Mediated Genome Editing in plants using an xCas9 and Cas9-NG hybrid. Journal of Integrative Plant Biology, 2020 Apr;62(4):398-402 (IF=9.106 通讯作者)

9. Yu Yang, Kai Tang, Tatsiana U Datsenka, Wenshan Liu, Suhui Lv, **Zhaobo Lang**, Xingang Wang, Jinghui Gao, Wei Wang, Wenfeng Nie, Zhaoqing Chu, Heng Zhang, Avtar K Handa, Jiankang Zhu, Huiming Zhang. Critical function of DNA methyltransferase 1 in tomato development and regulation of the DNA methylome and transcriptome, Journal of Integrative Plant Biology, 2019 Dec;61(12):1224-1242 (IF=9.106)

10. Jiemeng Xu, Kai Hua, **Zhaobo Lang**. Genome editing for horticultural crop improvement. Horticulture Research, 2019 Oct 8;6:113 (IF=7.291 通讯作者)

11. Huan Huang, Ruie Liu, Qingfeng Niu, Kai Tang, Bo Zhang, Heng Zhang, Kunsong Chen, Jian-Kang Zhu, **Zhaobo Lang***. Global increase in DNA methylation during orange fruit development and ripening, Procedings of the National Academyof Sciences, 2019 Jan 22;116(4):1430-1436(IF=12.779 通讯作者)

12. Jingfei Cheng, Qingfeng Niu, Bo Zhang, Kunsong Chen, Ruihua Yang, Jian-Kang Zhu, Yijing Z hang, **Zhaobo Lang**. Downregulation of RdDM during strawberry fruit ripening, Genome Biology, 2018 Dec 4;19(1):212 (IF=18.01 通讯作者)

13. Huiming Zhang, **Zhaobo Lang**, Jian-Kang Zhu. Dynamics and function of DNA methylation in plants. Nature Reviews Molecular Cell Biology, 2018 Aug;19(8):489-506 (IF=113.915)

14. **Zhaobo Lang***, Yihai Wang, Kai Tang, Dengguo Tang, Tatsiana

Datsenka, Jingfei Cheng, Yijing Zhang, Avtar K. Handa, Jian-Kang Zhu*. Critical roles of DNA demethylation in the activation of ripening-induced genes and inhibition of ripening-repressed genes in tomato fruit, Procedings of the National Academy of Sciences, 2017 May 30;114(22):E4511-E4519 (IF=12.779 第一作者)

15. Kai Tang, **Zhaobo Lang**, Heng Zhang, Jian-Kang Zhu. The DNA demethylase ROS1 targets genomic regions with distinct chromatin modifications, Nature Plants, 2016 Oct 31;2(11):16169 (IF=17.352 共同第一作者)

16. Qingzhu Zhang, Dong Wang, **Zhaobo Lang**, Li He, Lan Yang, Liang Zeng, Yanqiang Li, Cheng Zhao, Huan Huang, Heng Zhang, Huiming Zhang, Jian-Kang Zhu. Methylation interactions in Arabidopsis hybrids require RNA-directed DNA methylation and are influenced by genetic variation, Procedings of the National Academy of Sciences, 2016 Jul 19;113(29):E4248-56 (IF=12.779)

17. Yizhen Wan, Kai Tang, Dayong Zhang, Shaojun Xie, Xiaohong Zhu, Zegang Wang, **Zhaobo Lang.** Transcriptome-wide high-throughput deep m(6)A-seq reveals unique differential m(6)A methylation patterns between three organs in Arabidopsis thaliana, Genome Biology, 2015 Dec 14;16:272 (IF=18.01)

18. **Zhaobo Lang**, Mingguang Lei, Xingang Wang, Kai Tang, Daisuke Miki, Huiming Zhang, Satendra K. Mangrauthia, Wenshan Liu, Wenfeng Nie, Guojie Ma, Jun Yan, Cheng-Guo Duan, Chuan-Chih Hsu, Chunlei Wang, W. Andy Tao, Zhizhong Gong, Jian-Kang Zhu. The methyl-CpG-binding protein MBD7 facilitates active DNA demethylation to limit DNA hyper-methylation and transcriptional gene silencing, Molecular Cell, 2015 Mar 19;57(6):971-83 (IF=19.328 第一作者)