

殷豪（副教授）

南京市卫岗 1 号 南京农业大学园艺学院

邮编：210095

Tel: 025-84396485

Email: yinhao@njau.edu.cn

研究方向：

1. 梨果实品质形成机制
2. 梨种质资源评价与利用
3. 转座子进化与功能

教育经历：

2015/01-2018/11, 南京农业大学, 农学院, 博士后;

2011/09-2014/12, 南京农业大学, 园艺学院, 博士;

2008/09-2011/07, 青岛农业大学, 园艺学院, 硕士

2004/09-2008/07, 青岛农业大学, 园艺学院, 学士

工作经历：

2015/01 – 2019/12, 南京农业大学, 园艺学院, 讲师;

2020/1 - 至今, 南京农业大学, 园艺学院, 副教授

主持科研项目：

1. 国家自然科学基金青年基金：梨 CER 基因调控果皮蜡质积累的分子机制研究，2018 年 1 月-2020 年 12 月，**主持**；
2. 江苏省自然科学基金青年基金：梨基因组中 Copia LTR 反转座子响应低温胁迫的功能鉴定与机理解析，2016 年 7 月-2019 年 6 月，**主持**；
3. 中国博士后科学基金面上项目（一等）：响应高温和干旱胁迫的梨 LTR 反转座子鉴定与解析，2015 年 7 月-2018 年 1 月，**主持**；
4. 中央高校基本业务费：梨 KCS 基因调控果皮蜡质积累的分子机制研究，2018 年 1 月-2020 年 12 月，**主持**

近 5 年发表的论文情况：

1. **Yin, H.**, Du, J., Li, L., Jin, C., Fan, L., Li, M., ... & Zhang, S. (2014). Comparative genomic analysis reveals multiple long terminal repeats, lineage-specific amplification, and frequent interelement recombination for Cassandra retrotransposon in pear (*Pyrus bretschneideri* Rehd.). *Genome Biology and Evolution*, 6(6), 1423-1436.
2. **Yin, H.**, Wu, X., Shi, D., Chen, Y., Qi, K., Ma, Z., & Zhang, S. (2017). TGTT and AACA: two transcriptionally active LTR retrotransposon subfamilies with a specific LTR structure and horizontal transfer in four Rosaceae species. *Mobile DNA*, 8(1), 14.
3. **Yin, H.**, Du, J., Wu, J., Wei, S., Xu, Y., Tao, S., ... & Zhang, S. (2015). Genome-wide

annotation and comparative analysis of long terminal repeat retrotransposons between pear species of *P. bretschneideri* and *P. communis*. Scientific Reports, 5, 17644.

4. Shi, D.#, Wu, J.#, Tang, H.#, **Yin, H.#**, Wang, H., Wang, R., ...Zhang, S.(2019). Single-pollen-cell sequencing for gamete-based phased diploid genome assembly in plants. Genome Research, 29(11), 1889-1899. (共同第一作者)
5. Wu, X.#, **Yin, H.#**, Chen, Y., Li, L., Wang, Y., Hao, P., ... & Zhang, S. (2017). Chemical composition, crystal morphology and key gene expression of cuticular waxes of Asian pears at harvest and after storage. Postharvest Biology and Technology, 132, 71-80. (共同第一作者)
6. Wang, G. M.#, **Yin, H.#**, Qiao, X., Tan, X., Gu, C., Wang, B. H., ... & Zhang, S. L. (2016). F-box genes: Genome-wide expansion, evolution and their contribution to pollen growth in pear (*Pyrus bretschneideri*). Plant Science, 253, 164-175. (共同第一作者)
7. Sun, J.#, **Yin, H.#**, Li, L., Song, Y., Fan, L., Zhang, S., & Wu, J. (2015). Evaluation of new IRAP markers of pear and their potential application in differentiating bud sports and other Rosaceae species. Tree Genetics & Genomes, 11(2), 25. (共同第一作者)
8. Chen, Y.#, **Yin, H.#***, Wu, X., Shi, X., Qi, K., & Zhang, S.*. (2018). Comparative analysis of the volatile organic compounds in mature fruits of 12 Occidental pear (*Pyrus communis* L.) cultivars. Scientia Horticulturae, 240, 239-248. (共同第一作者和共同通讯作者)
9. Wu, X.#, **Yin, H.#***, Shi, Z., Chen, Y., Qi, K., Qiao, X., ... & Zhang, S.* (2018). Chemical composition and crystal morphology of epicuticular wax in mature fruits of 35 pear (*Pyrus* spp.) cultivars. Frontiers in plant science, 9. (共同第一作者和共同通讯作者)
10. Wu X, Shi X, Bai M, ...**Yin H.***, Zhang S.* (2019). Transcriptomic and Gas Chromatography-Mass Spectrometry Metabolomic Profiling Analysis of the Epidermis Provides Insights into Cuticular Wax Regulation in Developing 'Yuluxiang' Pear Fruit. J Agric Food Chem. 2019;67(30):8319-8331. (共同通讯作者)
11. Wu, X., Chen, Y., Shi, X., Qi, K., Cao, P., Liu, X., ..**Yin, H.***, & Zhang, S.* (2020). Effects of palmitic acid (16:0), hexacosanoic acid (26:0), ethephon and methyl jasmonate on the cuticular wax composition, structure and expression of key gene in the fruits of three pear cultivars. Functional Plant Biology, 47(2), 156-169. (共同通讯作者)
12. Liu, C.#, Qiao, X.#, Li, Q., Zeng, W., Wei, S., ...Yin, H.* & Zhang, S.* (2020). Genome-wide comparative analysis of the BAHD superfamily in seven Rosaceae species and expression analysis in pear (*Pyrus bretschneideri*). BMC Plant Biology, 20(1). (共同通讯作者)
13. Zeng, W.#, Qiao, X.#, Li, Q., Liu, C., Wu, J., **Yin, H.***, & Zhang, S.* (2020). Genome-wide identification and comparative analysis of the ADH gene family in Chinese white pear (*Pyrus bretschneideri*) and other Rosaceae species. Genomics, 112, 3484-3496. (共同通讯作者)
14. 吴潇, 齐开杰, **殷豪***, & 张绍铃*. (2016). 诱变技术在落叶果树育种中的应用. 园艺学报, 43(9), 1633-1652. (共同通讯作者)

15. 陈杨杨, 吴潇, 谷超, **殷豪***, & 张绍铃. (2018). ‘砀山酥梨’ 实时荧光定量 PCR 内参基因的筛选. 中国果树, 1, 006. (通讯作者)
16. 吴潇, 陈杨杨, 石新杰, 齐开杰, 曹鹏, **殷豪***, & 张绍铃. (2018). 喷施外源激素对 ‘玉露香’ 梨叶片表皮蜡质组分, 结构及渗透性的影响. 南京农业大学学报, 41(4), 647-654. (通讯作者)
17. 石新杰, 吴潇, 陈杨杨, 曹鹏, 白冰, 李明智, **殷豪***, 张绍铃. ^{60}Co - γ 射线辐射对翠冠和玉露香梨枝条的生物损伤效应[J]. 核农学报, 2019,33(11):2095-2102. (通讯作者)
18. Qiao, X., **Yin, H.**, Li, L., Wang, R., Wu, J., Wu, J., & Zhang, S. (2018). Different modes of gene duplication show divergent evolutionary patterns and contribute differently to the expansion of gene families involved in important fruit traits in pear (*Pyrus bretschneideri*). Frontiers in plant science, 9, 161.
19. Zhou, H., **Yin, H.**, Chen, J., Liu, X., Gao, Y., Wu, J., & Zhang, S. (2016). Gene-expression profile of developing pollen tube of *Pyrus bretschneideri*. Gene Expression Patterns, 20(1), 11-21.
20. Kou, X., Qi, K., Qiao, X., **Yin, H.**, Liu, X., Zhang, S., & Wu, J. (2017). Evolution, expression analysis, and functional verification of *Catharanthus roseus* RLK1-like kinase (CrRLK1L) family proteins in pear (*Pyrus bretschneideri*). Genomics, 109(3), 290-301.
21. Jin, C., Huang, X. S., Li, K. Q., **Yin, H.**, Li, L. T., Yao, Z. H., & Zhang, S. L. (2016). Overexpression of a bHLH1 transcription factor of *Pyrus ussuriensis* confers enhanced cold tolerance and increases expression of stress-responsive genes. Frontiers in plant science, 7, 441.
22. Zhou, H., Qi, K., Liu, X., **Yin, H.**, Wang, P., Chen, J., ... & Zhang, S. (2016). Genome-wide identification and comparative analysis of the cation proton antiporters family in pear and four other Rosaceae species. Molecular genetics and genomics, 291(4), 1727-1742.
23. Zhang, Q. J., Tao, S. T., Li, M., Qi, X. X., Wu, J., **Yin, H.**, ... & Zhang, S. L. (2015). Identification of differentially expressed genes using digital gene expression profiles in *Pyrus pyrifolia* Nakai cv. Hosui bud release following early defoliation. Tree Genetics & Genomes, 11(3), 34.
24. Wang, L., Li, X., Wang, L., Xue, H., Wu, J., **Yin, H.**, & Zhang, S. (2017). Construction of a high-density genetic linkage map in pear (*Pyrus communis* × *Pyrus pyrifolia* nakai) using SSRs and SNPs developed by SLAF-seq. Scientia Horticulturae, 218, 198-204.
25. Wu, J., Wang, Y., Xu, J., Korban, S. S., Fei, Z., Tao, S., ... **Yin, H.**, ... & Zhang, S. (2018). Diversification and independent domestication of Asian and European pears. Genome biology, 19(1), 77.
26. Chen, G., Li, X., Chen, Q., Wang, L., Qi, K., **Yin, H.**, ... & Huang, Z. (2018). Dynamic transcriptome analysis of root nitrate starvation and re-supply provides insights into nitrogen

metabolism in pear (*Pyrus bretschneideri*). Plant Science.

国家发明专利:

1. 张绍铃, 吴潇, **殷豪**等. 一种梨果实表皮蜡质含量快速测定的方法,ZL201710289003.5
2. 张绍铃, **殷豪**, 吴潇等. 一种提高梨果实表皮蜡质含量的方法, ZL201810534603.8
3. 张绍铃, 吴俊, **殷豪**等. 基于梨基因组开发的 IRAP 标记及其应用, ZL2014100149995.

获奖情况:

1. 梨果实品质性状优异基因发掘与分子育种技术研究——教育部自然科学奖一等奖（2015年度）：第9完成人；
2. 南京农业大学梨遗传与种质创新团队——神农中华农业科技奖优秀创新团队奖（2019年度）：第9完成人