

吴建强简历

联系方式

姓名: 吴建强 (研究员 (二级) ; 博导)
地址: 中国科学院昆明植物研究所
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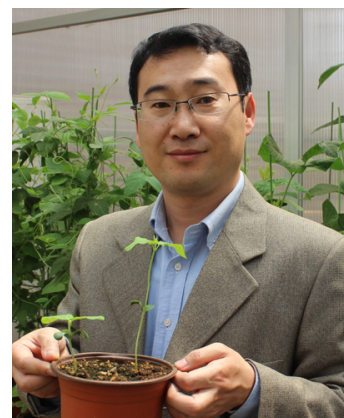
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研究方向

1. 玉米抗虫分子机制
2. 植物与寄生植物相互作用

学习经历

	植物分子生物学, 博士	
2001.09- 2007.11	论文: molecular study of the trypsin proteinase inhibitor defense mechanism and early herbivory-induced signaling in <i>Nicotiana</i>	德国马普化学生态学研究所分子生态学研究室; 导师: Ian T. Baldwin 教授 (美国科学院院士)
	分析化学, 硕士	
1995.09 — 1998.07	论文: application of cyclodextrin-derivative stationary phases in separation of aromatic positional isomers in gas chromatography	中国科学院大连化学物理研究所; 导师: 朱道乾研究员
	化学工程学 (无机化工), 学士	
1991.09- 1995.07		大连理工大学 化工学院

工作经历

- 2012.04–至今: 中国科学院昆明植物研究所, 研究员, 课题组长, 博导
- 2007.01–2012.04: 课题负责人 (Group Leader), 德国马普化学生态学研究所
- 1998.10–2001.08: 中国科学院大连化学物理研究所, 分析化学研究室, 研究实习员

学术任职

1. 中国科学院昆明植物研究所学术委员会, 副主任 (2020.06-2025.05)
2. 中国植物学会, 第十七届理事会理事 (2023.10-2028.10)
3. 中国植物生理与植物分子生物学学会第十三届常务理事 (2024.08-2029.08)
4. 中国生态学学会第五届化学生态专业委员会, 副主任委员 (2022.10-2027.10)
5. Journal of Integrative Plant Biology 编委 (2011-2025.12)
6. Plant Diversity 主编 (2020.8-2025.12)
7. Journal of Ecology and Environment 编委 (2023.01-2024.12)
8. Journal of Systematics and Evolution 编委 (2024.04-2028.12)
9. 中国科学院大学第六届学位评定委员会生命科学学位评定分委员会委员 (2023.12-2028.12)
10. 云南省野生资源植物研发重点实验室, 学术委员会委员 (2020-2024)
11. 云南省真菌多样性与绿色发展重点实验室, 学术委员会委员 (2021-2022)

以往学术任职情况

1. 云南省党外知识分子联谊会, 常务理事 (2020-2023)
2. 中国生态学学会第四届化学生态专业委员会委员 (2017.10-2022.10)
3. Plant Diversity 编委 (2015-2020)
4. 云南省植物学会第十三届理事会理事, 兼繁殖生态与生物互作专业委员会主任委员 (2020.11-2024.08)
12. 中国植物生理与植物分子生物学学会常务理事, 兼青年工作委员会委员 (第十二届; 2019.7-2024.07)
5. 中国昆虫学会第十一届理事会化学生态学专业委员会副主任 (2023.02-2024.08)

行政任职情况

1. 2014.10-2020.05: 资源植物与生物技术重点实验室, 副主任

2. 2020.06-2023.11: 资源植物与生物技术重点实验室, 主任
3. 2021.07-至今: 中国科学院昆明植物研究所, 副所长

人才项目情况

1. 2021 年, 入选国家第六批万人计划科技领军人才
2. 2019 年, 获国务院政府特殊津贴
3. 2012 年, 云南省海外高层次人才计划
4. 2012 年, 中共中央组织部, 青年千人计划
5. 2008 年, Otto Hahn 奖章, 德国马普学会

获奖情况

1. 2022.09, 入选中国科学院大学“领雁银奖—振翅奖”

基金与项目

1. 2024.01-2027.12, 国家自然科学基金委, 区域创新发展联合基金(编号: U23A20199), “转录因子 EIN3 和 MYC2 互作调控玉米对草地贪夜蛾抗性机理研究”
2. 2024.01-2026.12, 云南省“兴滇英才支持计划”项目, “栽培番茄与菟丝子互作中关键因子挖掘和调控网络构建”
3. 2022.06-2025.05, 云南省基础研究计划重点项目, “栽培番茄中抗菟丝子寄生的基因克隆及功能研究”
4. 2021.01-2023.12, 云南省创新团队项目, “中国科学院昆明植物研究所玉米抗虫分子机理研究省创新团队”
5. 2020.06-2023.05, 云南省基础研究计划重点项目, “密环菌与天麻互作分子机理的研究”
6. 2020.01-2023.12, 国家自然科学基金委, 面上项目(编号: 31970274), “菟丝子介导的磷胁迫系统性信号在寄主植物间长距离运输研究”
7. 2018.01-2020.12, 中国科学院对外合作重点项目(编号: 151853KYSB20170025), “寄生植物菟丝子在不同寄主间转导氮胁迫系统性信号的研究”(已结题)
8. 2016.01-2019.12, 国家基金委-云南省联合基金(编号: U1502263), “玉米丝裂原活化蛋白激酶(MAPK)信号系统抗虫功能及分子机理研究”(已结题)
9. 2015.01-2018.12, 国家自然科学基金委, 面上项目(编号: 31470369), “大气 CO₂ 浓度升高对野生烟草抗虫能力的影响及分子机理研究”(已结题)

10. 2014.07-2019.06, 中国科学院先导专项 “作物病虫害的导向性防控--生物间信息流与行为操控” 课题, “农作物抗虫信号流传递与调控网络研究” (编号: XDB11050200)
11. 2013.10-2018.09, 马普伙伴小组国际合作项目, “Host-parasitic plant interactions” (已结题)
12. 2012.12-2015.11, 云南省高端人才计划 (编号: 2012HA016), “重要经济作物抗虫分子机理研究” (已结题)
13. 2012.12-2015.11, 云南省海外高层次人才计划 (已结题)
14. 2012.01-2014.12, 中共中央组织部, 青年千人计划 (已结题)
15. 2011.12, 欧盟玛丽居里奖学金 (获 96.1 分) (合作者: Detlef Weigel 教授, 德国马普发育生物学研究所, Lynne E. Maquat 教授, 美国罗切斯特大学, 均为美国科学院院士)

发表文章 (* 通信或共同通讯作者; # 共同第一作者)

通讯作者及第一作者论文

2024

1. Zhao, M., Zheng, X., Su, Z., Shen, G., Xu, Y., Feng, Z., Li, W., Zhang, S., Cao, G., Zhang, J.*, **Wu, J.*** MicroRNA399s and strigolactones mediate systemic phosphate signaling between dodder-connected host plants and control the association of host plants with rhizosphere microbes. **New Phytologist**. In press.
2. Li, S., Ma, C., Li, S., Zhang, M., Zhang, C., Qi, J., Wang, L., Wu, X., Li, J.*, **Wu, J.*** MPK4 phosphorylates MYC2 transcription factors to regulate jasmonic acid signaling and herbivory responses in maize. **Plant Physiology**. In press.
3. Setotaw, Y.B.#, Li, J.#, Qi, J., Ma, C., Zhang, M., Huang C., Wang, L., **Wu, J.*** (2024) Salicylic acid positively regulates maize defenses against lepidopteran insects. **Plant Diversity** 46:519-529
<https://pubmed.ncbi.nlm.nih.gov/39280976/>
4. Wang, L., Ma, C., Wang, S., Yang F., Sun, Y., Tang, J., Luo, J., **Wu, J.*** (2024) Ethylene and jasmonate signaling converge on gibberellin catabolism during thigmomorphogenesis in Arabidopsis. **Plant Physiology** 194:758-773.
<https://pubmed.ncbi.nlm.nih.gov/37847103/>

评述文章

Plant Physiology 评述 (News and Views)

<https://academic.oup.com/plphys/advance-article/doi/10.1093/plphys/kiad588/7334396>

5. Zhang, J.#, Li, S.#, Li, W.#, Feng, Z., Zhang, S., Zheng, X., Xu, Y., Shen, G., Zhao, M., Cao, G., Wu, X.*, **Wu, J.*** (2023) Large-scale interplant exchange of macromolecules between soybean and dodder under nutrient stresses. **Plant Diversity** 46:116-125.
<https://pubmed.ncbi.nlm.nih.gov/38343599/>

2023

6. **Wu, J.*** (2023) Plant biology: Young maize leaves 'smell' a volatile danger signal. **Current Biology** 33:R914-R916.
<https://pubmed.ncbi.nlm.nih.gov/37699351/>
7. Shen, G. #, Zhang, J.#, Lei, Y., Xu, Y., **Wu, J.*** (2023) Between-Plant Signaling. **Annual Review of Plant Biology** 74:367-386.
<https://www.ncbi.nlm.nih.gov/pubmed/36626804>
8. Ma, C., Li, R., Sun, Y., Zhang, M., Li, S., Xu, Y., Song, J., Li, J., Qi, J., Wang, L.*, **Wu, J.*** (2022) ZmMYC2s play important roles in maize responses to simulated herbivory and jasmonate. **Journal of Integrative Plant Biology** 65:1041-1058.
<https://www.ncbi.nlm.nih.gov/pubmed/36349965>

2022

9. Xue, N., Zhan, C., Song, J., Li, Y., Zhang J., Qi, J., **Wu, J.*** (2022) The glutamate receptor-like 3.3 and 3.6 mediate systemic resistance to insect herbivores in Arabidopsis. **Journal of Experimental Botany** 73:7611-7627.
<https://www.ncbi.nlm.nih.gov/pubmed/36214841>
10. Xu, Y., Zhang, J., Ma, C., Lei, Y., Shen, G., Jin, J. J., Eaton, D. A., **Wu, J.*** (2022) Comparative genomics of orobanchaceous species with different parasitic lifestyles reveals the origin and stepwise evolution of plant parasitism. **Molecular Plant** 15:1384-1399.
<https://www.ncbi.nlm.nih.gov/pubmed/35854658>
11. Song, J.#, Bian, J.#, Xue, N., Yu, X, **Wu, J.*** (2022) Inter-species mRNA transfer among green peach aphids, dodder parasites, and cucumber host plants. **Plant Diversity** 44:1-10.
<https://pubmed.ncbi.nlm.nih.gov/35281124>

2021

12. Xu, Y.#, Lei, Y.#, Su, Z., Zhao, M., Zhang, J., Shen, G., Wang, L., Li, J., Qi, J., **Wu, J.*** (2021) A chromosome-scale *Gastrodia elata* genome and large-scale comparative genomic analysis indicate convergent evolution by gene loss in mycoheterotrophic and parasitic plants. **Plant Journal** 108:1609-1623.
<https://pubmed.ncbi.nlm.nih.gov/34647389/>
13. Lei, Y., Xu, Y., Zhang, J., Song, J., **Wu, J.*** (2021) Herbivory-induced systemic signals are likely evolutionarily conserved in euphyllophytes. **Journal of Experimental Botany** 72: 7274-7284.
<https://www.ncbi.nlm.nih.gov/pubmed/34293107>
14. Malook, S.U., Xu, Y., Qi, J, Li, J., Wang, L., **Wu, J.*** (2021) *Mythimna separata* herbivory primes maize resistance in systemic leaves. **Journal of Experimental Botany** 72:3792-3805.
<https://pubmed.ncbi.nlm.nih.gov/33647931/>
15. Zhang, J., Xu, Y., Xie, J., Zhuang, H., Liu, H., Shen, G.*, **Wu, J.*** (2021) The parasite *Cuscuta campestris* enables transfer of bidirectional systemic nitrogen signals between host plants. **Plant Physiology** 185:1395–1410.
<https://pubmed.ncbi.nlm.nih.gov/33793912/>
16. Zhang, C., Li, J., Li, S., Ma, C., Liu, H., Wang, L., Qi, J.*, **Wu, J.*** (2021) ZmMPK6 and ethylene signaling negatively regulate the accumulation of anti-

insect metabolites DIMBOA and DIMBOA-Glc in maize inbred line A188. **New Phytologist** 229:2273-2287.

<https://pubmed.ncbi.nlm.nih.gov/32996127>

2020

17. Shen, G.[#], Liu, N.[#], Zhang, J., Xu, Y., Baldwin, I.T., **Wu, J.*** (2020) *Cuscuta australis* (dodder) parasite eavesdrops on the host plants' FT signals to flower. **Proceedings of National Academy of Sciences of the USA** 117: 23125-23130
<https://www.ncbi.nlm.nih.gov/pubmed/32868415>
18. Li, S., Zhang, J., Liu, H., Liu, N., Shen, G., Zhuang, H., **Wu, J.*** (2020) Dodder-transmitted mobile signals prime host plants for enhanced salt tolerance. **Journal of Experimental Botany** 71:1171-1184
<https://www.ncbi.nlm.nih.gov/pubmed/31665509>

评述文章

J. Exp. Bot. 评述 (Insight) <https://academic.oup.com/jxb/article/71/3/749/5714585>

19. Zhang, C., Lei, Y., Lu, C., Wang, L.*, **Wu, J.*** (2020) MYC2, MYC3, and MYC4 function additively in wounding-induced jasmonic acid biosynthesis and catabolism. **Journal of Integrative Plant Biology** 62:1159-1175
<https://www.ncbi.nlm.nih.gov/pubmed/31876387>
20. Liu, N., Shen, G., Xu Y., Liu, H., Zhang, J., Li, S., Li, J., Zhang, C., Qi, J., Wang, L., **Wu, J.*** (2020) Extensive inter-plant protein transfer between *Cuscuta* parasites and their host plants. **Molecular Plant** 13:573-585
<https://www.ncbi.nlm.nih.gov/pubmed/31812691>

评述文章

1) Molecular Plant 评述 (Spotlight)

<https://www.sciencedirect.com/science/article/pii/S1674205220300071?via%3Dihub>

2) Nature Plants 评述 (Research Highlights)

<https://www.nature.com/articles/s41477-019-0583-9>

2019

21. Qin, Y., Zhang, J., Hettenhausen, C., Liu, H., Li, S., Shen, G., Cao, G., **Wu, J.*** (2019) The host jasmonic acid pathway regulates the transcriptomic changes of dodder and host plant under the scenario of caterpillar feeding on dodder. **BMC Plant Biology** 19:540.
<https://www.ncbi.nlm.nih.gov/pubmed/31801469>
22. Gao, L., Shen, G., Zhang, L., Qi, J., Zhang, C., Ma, C., Li, J., Wang, L., Malook, S.U., **Wu, J.*** (2019) An efficient system composed of maize protoplast transfection and HPLC-MS for studying the biosynthesis and regulation of maize benzoxazinoids. **Plant Methods** 15:144.
<https://www.ncbi.nlm.nih.gov/pubmed/31798670>
23. Malook, S.[#], Qi, J.[#], Hettenhausen, C.[#], Xu, Y., Zhang, C., Zhang, J., Lu, C., Li, J., Wang, L., **Wu, J.*** (2019) The oriental armyworm (*Mythimna separata*) feeding induces systemic defense responses within and between maize leaves. **Philosophical Transactions of the Royal Society B** 374: 20180307
<https://www.ncbi.nlm.nih.gov/pubmed/30967023>

2018

24. **Wu, J.*** (2018) miRNAs as a secret weapon in the battlefield of haustoria, the interface between parasites and host plants. **Molecular Plant** 11, 354–356.
<https://www.ncbi.nlm.nih.gov/pubmed/29462721>

25. Qi, J., Malook, S., Shen, G., Gao, L., Zhang, C., Li, J., Zhang, J., Wang, L., **Wu, J.*** (2018) Current understanding of maize and rice defense against insect herbivores. **Plant Diversity** 40: 189-195.
<https://www.sciencedirect.com/science/article/pii/S2468265918300696>
26. Sun, G. #, Xu, Y. #, Liu, H. #, Sun, T., Zhang, J., Hettenhausen, C., Shen, G., Qi, J., Qin, Y., Li, J., Wang, L., Chang, W., Guo, Z., Baldwin, I.T., **Wu, J.*** (2018) Large-scale gene losses underlie the genome evolution of parasitic plant *Cuscuta australis*. **Nature Communications** 9:2683.
<https://www.ncbi.nlm.nih.gov/pubmed/29992948>

评述文章

Science 评述 (In other Journals)

<https://science.sciencemag.org/content/361/6402/565.5/tab-pdf>

27. Zhuang, H., Li, J., Song, J., Hettenhausen, C., Schuman, M., Sun, G., Zhang, C., Li, J., Song, D., **Wu, J.*** (2018) Aphid (*Myzus persicae*) feeding on the parasitic plant dodder (*Cuscuta australis*) activates defense responses in both the parasite and soybean host. **New Phytologist** 218: 1586-1596.
<https://www.ncbi.nlm.nih.gov/pubmed/29575001>
28. Lei, Y., Xu, Y., Hettenhausen, C., Lu, C., Shen, G., Zhang, C., Li, J., Song, J., Lin, H.*, **Wu, J.*** (2018). Comparative analysis of alfalfa (*Medicago sativa* L.) leaf transcriptomes reveals genotype-specific salt tolerance mechanisms. **BMC Plant Biology** 18:35
<https://www.ncbi.nlm.nih.gov/pubmed/29448940>
29. Lu, C., Qi, J., Hettenhausen, C., Lei, Y., Zhang, J., Zhang, M., Zhang C., Song J., Li, J., Cao, G., Malook, S.U., **Wu, J.*** (2018) Elevated CO₂ differentially affects tobacco and rice defense against lepidopteran larvae via the jasmonic acid signaling pathway. **Journal of Integrative Plant Biology** 60: 412-431
<https://www.ncbi.nlm.nih.gov/pubmed/29319235>
30. Qi, J., Zhang, M., Lu, C., Hettenhausen, C., Tan, Q., Cao, G., Zhu, X., Wu, G., **Wu, J.*** (2018) Ultraviolet-B enhances the resistance of multiple plant species to lepidopteran insect herbivory through the jasmonic acid pathway. **Scientific Reports** 8:277
<https://www.ncbi.nlm.nih.gov/pubmed/29321619>

2017

31. Song, J., Liu, H., Zhuang, H., Zhao, C., Xu, Y., Wu, S., Qi, J., Li, J., Hettenhausen, C.*, **Wu, J.*** (2017) Transcriptomics and alternative splicing analyses reveal large differences between maize lines B73 and Mo17 in response to aphid *Rhopalosiphum padi* Infestation. **Frontiers in Plant Science** 8:1738.
<https://www.ncbi.nlm.nih.gov/pubmed/29067035>
32. Hettenhausen, C.#, Li, J.#, Zhuang, H., Sun, H., Xu, Y., Qi, J., Zhang, J., Lei, Y., Qin, Y., Sun, G., Wang, L., Baldwin, I.T., **Wu, J.*** (2017) The stem parasitic plant *Cuscuta australis* (dodder) transfers herbivory-induced signals among plants. **Proceedings of National Academy of Sciences of the USA** 114: E6703-E6709.
<https://www.ncbi.nlm.nih.gov/pubmed/28739895>

评述文章

1) PNAS 评述 (In this issue)

<https://www.pnas.org/content/114/32/8433>

2) Science 评述 (In other Journals)

<https://science.sciencemag.org/content/357/6352/657.5>

3) Nature Plants. (Research Highlights)

33. Lei, Y., Liu, Q., Hettenhausen, C., Cao, G., Tan, Q., Zhao, W., Lin, H.*, **Wu, J.*** (2017) Salt-tolerant and -sensitive alfalfa (*Medicago sativa*) cultivars have large variations in defense responses to the lepidopteran insect *Spodoptera litura* under normal and salt stress condition. **PLoS One** 12: e0181589.
<https://www.ncbi.nlm.nih.gov/pubmed/28719628>

2016

34. Sun, T., Renner, S., Xu, Y., Qin, Y., **Wu, J.***, Sun, G.* (2016) Two *hAT* transposon genes were transferred from Brassicaceae to broomrapes and are actively expressed in some recipients. **Scientific Reports** 6:30192.
<https://www.ncbi.nlm.nih.gov/pubmed/27452947>
35. Luo, J., Wei, K., Wang, S., Zhao, W., Ma, C., Hettenhausen, C., Wu, J., Cao, G., Sun, G., Baldwin, I. T., **Wu, J.***, Wang, L*. (2016) CO11-regulated hydroxylation of jasmonoyl-L-isoleucine impairs *Nicotiana attenuata*'s resistance to the generalist herbivore *Spodoptera litura*. **Journal of Agricultural and Food Chemistry** 64, 2822-2831
<http://www.ncbi.nlm.nih.gov/pubmed/26985773>
36. Qi, J. #, Sun, G. #, Wang, L. #, Zhao, C. #, Hettenhausen, C., Schuman, M.C., Baldwin, I.T., Li, J., Song, J., Liu, Z., Xu, G., Lu, X., **Wu, J.*** (2016) Oral secretions from *Mythimna separata* insects specifically induce defense responses in maize as revealed by high-dimensional biological data. **Plant Cell & Environment** 39, 1749-1766
<http://www.ncbi.nlm.nih.gov/pubmed/26991784>
37. Hettenhausen, C.#, Sun, G. #, He, Y., Zhuang, H., Sun, T., Qi, J., **Wu, J.*** (2016) Genome-wide identification of calcium-dependent protein kinases in soybean and analyses of their transcriptional responses to insect herbivory and drought stress. **Scientific Reports**, 6: 18973.
<http://www.ncbi.nlm.nih.gov/pubmed/26733237>

2015

38. Hettenhausen, C., Schuman, M.C., **Wu, J.*** (2015) MAPK signaling – a key element in plant defense response to insects. **Insect Science** 22, 157-164.
<http://www.ncbi.nlm.nih.gov/pubmed/24753304>
39. Li, J., Hettenhausen, C., Sun, G., Zhuang, H., Li, J. H.*, **Wu, J.*** (2015) The parasitic plant *Cuscuta australis* is highly insensitive to abscisic acid-induced suppression of hypocotyl elongation and seed germination. **PLoS One**, 10: e0135197.
<http://www.ncbi.nlm.nih.gov/pubmed/26258814>

2014

40. Hettenhausen, C., Heinrich, M., Baldwin, I.T., **Wu, J.*** (2014) Fatty acid-amino acid conjugates are essential for systemic activation of salicylic acid-induced protein kinase and accumulation of jasmonic acid in *Nicotiana attenuata*. **BMC Plant Biology**, 14, 326.
<http://www.ncbi.nlm.nih.gov/pubmed/25430398>

41. Zhang, D., Qi, J., Yue, J., Huang, J., Sun, T., Li, S., Wen, J., Hettenhausen, C., Wu, J., Wang, L., Zhuang, H., **Wu, J.*** and Sun, G.* (2014), Root parasitic plant *Orobancha aegyptiaca* and shoot parasitic plant *Cuscuta australis* obtained Brassicaceae-specific strictosidine synthase-like genes by horizontal gene transfer. **BMC Plant Biology** **14**, 19.
<http://www.ncbi.nlm.nih.gov/pubmed/24411025>

2013

42. Wang, L., **Wu, J.*** (2013) The essential role of jasmonic acid in plant-herbivore interactions - using the wild tobacco *Nicotiana attenuata* as a model. **Journal of Genetics and Genomics** **40**, 597-606.
<http://www.ncbi.nlm.nih.gov/pubmed/24377866>
43. Hettenhausen, C., Baldwin, I.T., **Wu, J.*** (2013) *Nicotiana attenuata* MPK4 suppresses a novel JA signaling-independent defense pathway against the specialist insect *Manduca sexta* but is not required for the resistance to the generalist *Spodoptera littoralis*. **New Phytologist** **199**, 787-99.
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参与工作论文

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4. Sun, H., Hu, X., Ma, C., Hettenhausen, C., Wang, L., Sun, G., **Wu, J.**, Wu, J*. (2014) Requirement of ABA signalling-mediated stomatal closure for resistance of wild tobacco to *Alternaria alternata*. **Plant Pathology** **63**, 1070-7.
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论著章节

1. 《植物与昆虫的相互作用》2023年，科学出版社，主编 娄永根、王琛柱，第六章“玉米对植食性昆虫的防御机制”，齐金峰、王蕾、李京、吴建强。
2. 《植物与生物相互作用总论》2023年，科学出版社，主编 方荣祥，第八章，“植物与植物相互作用”，吴建强、齐金峰、王蕾、申国境。
3. Hettenhausen C, Baldwin, I.T., **Wu J.** (2014) Virus-induced gene silencing in plant MAPK research. **Methods in Molecular Biology – Plant MAP Kinases: Methods and Protocols**. Eds. G. Komis, J. Samaj, Humana Press Inc. 1171:79-89
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口头报告

1. 17th World Congress on Parasitic Plants (WCPP2024) meeting, Nara, Japan, June 3-7, 2024.
2. 首届植物科学前沿学术大会，2022年7月18-21日，南京
3. 第六届植物生物互作国际会议，2021.10.9-2021.10.11，线上
4. 全国植物保护博士后论坛暨第十五届全国青年植保科技创新学术研讨会，2021.7.29-2021.8.01，呼和浩特
5. Topic workshop of 43rd annual meeting of the molecular biology society of Japan, 2020年12月2日 (Zoom meeting)
6. 全国系统与进化植物学研讨会暨第十四届青年学术研讨会，2020年11月25-28日，西双版纳热带植物园
7. 云南省植物学会第13次会员代表大会暨植物多样性与绿色发展学术研讨会，2020年11月12-14日，昆明
8. JIPB 编委会暨整合植物生物学研讨会，2020年11月18-20日，广州
9. 第十八届生态学大会，云南省昆明市，2019年11月28日-12月1日
10. The 10th Conference of Asia-Pacific Association of Chemical Ecologist, Hangzhou, China, October 9-13, 2019
11. World Congress on Parasitic Plants - WCPP2019, Amsterdam, the Netherlands, June 30-July 5, 2019
12. 第十二届全国化学生态学学术会议，福建福州市，2018年6月22-25日
13. 第九届西北地区植物科学与资源利用研讨会，云南大理，2017年8月25-27日
14. The 5th International Conference on Biotic Plant Interactions, Aug. 17-21, 2017
15. 第十三届全国杂草科学大会，贵阳，2017年8月7日-10日
16. 17th Plant Genomics Conference in China, Fuzhou, China, Aug. 19-21, 2016

17. **11th National Congress of Chemical Ecology**, Wuhan, China, July 22-24, 2016
18. **National Congress of Plant Biology**, Changchun, China, Oct. 9-12, 2015
19. **International Symposium on “From Ecosystems to Modern Agriculture”**, Lanzhou, China, June 26 - 27, 2015
20. **13th Congress on Parasitic Plants**, Kunming, China, 5-10 July 2015
21. **3rd International Conference on Plant Metabolism**, Xiamen, China, July 2-5, 2014
22. **10th Solanaceae Conference (SOL 2013)**, Beijing, China, Oct. 13-17, 2013
23. The important roles of MAPKs in plant defense against herbivores. **Invited talk, Institute of Zoology, Chinese Academy of Sciences**, Beijing, China, Jun 4, 2013
24. Herbivory-induced signaling in plants – MAPKs go ahead. **Invited talk, Institute of Botany, Chinese Academy of Sciences**, Beijing, China, Nov. 12, 2012
25. Herbivory-induced signaling in plants – MAPKs go ahead. **Invited talk, Institute of Genetics and Developmental Biology, Chinese Academy of Sciences**, Beijing, China, Nov. 14, 2012
26. MPK4 in stress signaling. **Invited talk, Huazhong Agricultural University**, Wuhan, China, Jul. 18, 2012
27. Functions of MAPK signaling in plant resistance to herbivores. **Invited lecture, Chinese Academy of Forestry**, Beijing, China, Dec. 27, 2011
28. MPK4 in *Nicotiana attenuata*: a multifaceted MAPK involved in biotic and abiotic resistance. **2nd International Symposium on Integrative Plant Biology, Invited lecture**, Lanzhou, China, Aug. 26-28, 2011
29. Herbivory-Induced Signaling in Plants: Perception and Action. **Invited lecture, Anhui Agricultural University**, Feb 21, 2011
30. When an herbivore takes a bite, does the plant know? **Invited plenary lecture, International Conference on Plant Vascular Biology and Agriculture**, Chongqing, China, June 21-24, 2009
31. NaCDPK1 mediates heat resistance in *Nicotiana attenuata*. **Max Planck Institute for Chemical Ecology**, Jena, Germany, Sept. 25-26, 2008
32. MAP kinases regulate *Nicotiana attenuata*'s defense responses to herbivory. Department of Life Sciences, **Nanjing University**, Nanjing, China, June 6, 2008
33. Genetic modifications of *Nicotiana attenuata* reveal functions of plant secondary metabolites in resistance to herbivory; **Invited plenary lecture, International Conference on Plant Secondary Metabolism**, Kunming, China, June 8-10, 2008
34. MAP kinases regulate defense responses to herbivory in *Nicotiana attenuata*; **Max Planck Institute for Chemical Ecology**, Jena, Germany, Sept. 2007
35. The evolution of proteinase inhibitor defense mechanisms during polyploidy speciation in *Nicotiana* native to North America, **Workshop DFG-SPP 1152 “Evolution of metabolic diversity”**, Halle, Germany, Oct. 2004
36. The evolution of herbivory-specific expression of proteinase inhibitors during polyploidy speciation in *Nicotiana* native to North America; **Botanikertagung 2004/Deutsche Botanische Gesellschaft, Vereinigung für Angewandte Botanik, Braunschweig**, Germany, Sept. 2004

教学工作

1. “植物分子生物学”，中科院昆明植物研究所，2019.06
2. “植物分子生物学”，中科院昆明植物研究所，2017.04
3. “植物分子生物学”，中科院昆明植物研究所，2014.12
4. “植物分子生物学”，中科院昆明植物研究所，2013.06

5. “Transfection of Arabidopsis Protoplasts”, Max Planck International Research School, basic lecture, Max Planck Institute for Chemical Ecology, Jena, Feb. 6-8, 2012
6. “Advanced Molecular Cloning and Application of Arabidopsis Protoplasts”, Max Planck International Research School, basic lecture, Max Planck Institute for Chemical Ecology, Jena, November 7-11, 2011
7. “Application of quantitative real-time PCR in ecological studies”, Ecology Workshop, Friedrich Schiller University, Jena, July, 2010
8. “Basic Knowledge of Molecular Cloning”, Max Planck International Research School, basic lecture, Max Planck Institute for Chemical Ecology, Jena, June, 2009
9. “Molecular Cloning of PCR Products”, Ecology Workshop, Friedrich Schiller University, Jena, July, 2008

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26. 李娟 (2013.01-2016.01), 华中农业大学 (联合培养)
27. Dahai Yang (2007.04-2011.03), Functions of protein kinases, calcium-dependent protein kinases (CDPKs) and BRI1-associated kinase 1 (BAK1), in wild tobacco (*Nicotiana attenuata*) immunity to herbivore and pathogen. Max Planck Institute for Chemical Ecology.
28. Hendrik Wünsche (2008.07-2011.06), Involvement of two nitric oxide-associated genes, NOA1 and GSNOR, in *Nicotiana attenuata*'s resistance to the specialist insect herbivore *Manduca sexta*. Max Planck Institute for Chemical Ecology.
29. Christian Hettenhausen (2007.02-2011.12), Mitogen-activated protein kinase 4 (MPK4) functions in development and resistance to biotic and abiotic stresses in *Nicotiana attenuata*. Max Planck Institute for Chemical

Ecology.

30. Stefan Meldau (2007.01-2012.03), Early herbivory-induced responses in plants.
31. Maria Heinrich (2009.01-2012.07), Functions of MAPKKs in plant resistance to herbivore in *Nicotiana attenuata*. Max Planck Institute for Chemical Ecology.

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9. 张龄丹 (2013.09-2016.06), 安徽农业大学与中科院昆明植物研究所, 联合培养
10. Chuan Shi (2010.05-2011.06), Die Bedeutung der nonsense-mediated mRNA decay Proteine UPF1, UPF2 und UPF3 im Hinblick auf die Pflanzenentwicklung und der abiotischen und biotischen Stressantwort. 德国耶拿应用技术大学

Diploma学生

1. Christian Hettenhausen (2004.10-2006.07), Characterization of a trypsin protease inhibitor-deficient ecotype of *Nicotiana attenuata* collected from Arizona. 德国耶拿大学
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