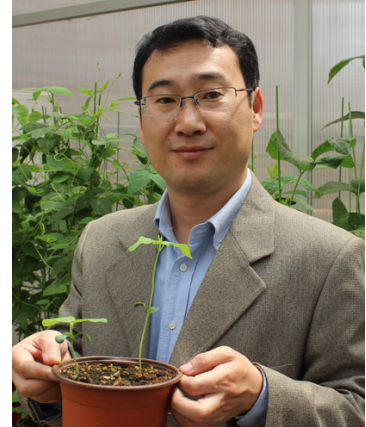


Curriculum vitae of Jianqiang Wu

CONTACT INFORMATION

Name: Jianqiang Wu
Address: Kunming Institute of Botany, Chinese Academy of Sciences
Lanhei Road 132
650201 Kunming, Yunnan Province
China
Lab Website: <http://pioo.kib.ac.cn>
Email: wujianqiang@mail.kib.ac.cn
Phone/Fax: +86-871-65229562
ORCID: 0000-0002-7726-6216
Scopus Author ID: 55672239400
Loop profile: 177636
ResearchGate: https://www.researchgate.net/profile/Jianqiang_Wu2



RESEARCH INTEREST

Defense mechanisms of maize against insects
Plant-parasitic plant interactions

EDUCATION

09.2001- 11.2007	Ph.D. Plant Molecular Biology and Genetics Thesis: molecular study of the trypsin proteinase inhibitor defense mechanism and early herbivory-induced signaling in <i>Nicotiana</i> Awarded the Otto Hahn Medal for excellent Ph.D. work in the Max Planck Society, 2008	Department of Molecular Ecology, Max Planck Institute for Chemical Ecology, Jena, Germany; Supervisor: Prof. Ian T. Baldwin
09.1995 - 07.1998	M.S. Analytical Chemistry (Chromatography and Mass Spectrometry) Thesis: application of cyclodextrin-derivative stationary phases in separation of aromatic positional isomers in gas chromatography	Department of Analytical Chemistry, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian, China; Supervisor: Prof. Daoqian Zhu
09.1991- 07.1995	B.S. Chemical Engineering	Department of Chemical Engineering, Dalian University of Technology, Dalian, China

ACADEMIC APPOINTMENTS

- 04.2012 – present: **Full Professor**, Kunming Institute of Botany, Chinese Academy of Sciences, Kunming, China
- 01.2007 – 04.2012: **Group Leader**, Department of Molecular Ecology, Max Planck Institute for Chemical Ecology, Jena, Germany
- 10.1998 – 08.2001: **Research Associate**, Modern Analysis Center, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian, China

ADMINISTRATIVE APPOINTMENTS

- 2021.07-present, Deputy Director, Kunming Institute of Botany, Chinese Academy of Sciences
- 2020.06-2023.11: Department Chair, Department of Economic Plants and Biotechnology, Kunming Institute of Botany, Chinese Academy of Sciences
- 2014.01-2020.05: Deputy Department Chair, Department of Economic Plants and Biotechnology, Kunming Institute of Botany, Chinese Academy of Sciences

EDITORIAL SERVICES

- Co-editor of Journal of Integrative Plant Biology (2010-2025)
- Editor of Plant Diversity (2015-2020)
- Editor-in-Chief of Plant Diversity (2021-2025)
- Editor of Journal of Ecology and Environment (2023-2024)
- Editor of Journal of Systematics and Evolution (2024-2028)

PUBLICATIONS (*corresponding authors; # co-first authors)

2024

- 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.
- 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.
- 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
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- 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.
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7. Shen, G. #, Zhang, J. #, Lei, Y., Xu, Y., **Wu, J.*** (2023) Between-Plant Signaling. **Annual Review of Plant Biology** 74:367-386.

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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.

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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.

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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.

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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.
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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
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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
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- 2013**
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8. Meldau, S., **Wu, J.**, Baldwin, I.T.* (2009) Silencing two herbivory-activated MAP kinases, SIPK and WIPK, does not increase *Nicotiana attenuata*'s susceptibility to herbivores in the glasshouse and in nature. **New Phytologist** **181**, 161-73.
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<http://www.ncbi.nlm.nih.gov/pubmed/18533839>
10. Horn, M., Patankar, A.G., Zavala, J.A., **Wu, J.**, Doleckova-Maresova, L., Vujtechova, M., Mares, M., Baldwin, I.T.* (2005). Differential elicitation of two processing proteases controls the processing pattern of the trypsin proteinase inhibitor precursor in *Nicotiana attenuata*. **Plant Physiology** **139**, 375-388.
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Book Chapters

1. 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
<http://www.ncbi.nlm.nih.gov/pubmed/24908121>
2. Galis I., Schuman M.C., Gase K., Hettenhausen C., Hartl M., Dinh S.T., **Wu J.**, Bonaventure G., Baldwin I.T. (2013) The use of VIGS technology to study plant-herbivore interactions. **Methods in Molecular Biology - Virus-induced gene silencing: Methods and protocols**. Eds. A. Becker, Humana Press Inc. 975:109-37
<http://www.ncbi.nlm.nih.gov/pubmed/23386299>
3. Tretyakov, A., Mrotzek, G., **Wu, J.**, Baldwin, I.T., Saluz, H.P.* (2006). Rapid heatblock thermocycling of small samples: a path to fast, low-cost plant genotyping. **Floriculture, Ornamental and Plant Biotechnology. Vol. 4. Global Science Books, Isleworth, 226 - 230.**
4. 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
<http://www.ncbi.nlm.nih.gov/pubmed/24908121>
5. Galis I., Schuman M.C., Gase K., Hettenhausen C., Hartl M., Dinh S.T., **Wu J.**, Bonaventure G., Baldwin I.T. (2013) The use of VIGS technology to study plant-herbivore interactions. **Methods in Molecular Biology - Virus-induced gene silencing: Methods and protocols**. Eds. A. Becker, Humana Press Inc. 975:109-37
<http://www.ncbi.nlm.nih.gov/pubmed/23386299>

TALKS

1. **17th World Congress on Parasitic Plants (WCPP2024) meeting**, Nara, Japan, June 3-7, 2024.
2. **Topic workshop of 43rd annual meeting of the molecular biology society of Japan**, Dec. 2, 2020. Online
3. **The 10th Conference of Asia-Pacific Association of Chemical Ecologist**, Hangzhou, China, October 9-13, 2019
4. **World Congress on Parasitic Plants - WCPP2019**, Amsterdam, the Netherlands, June 30-July 5, 2019
5. **The 5th International Conference on Biotic Plant Interactions**, Aug. 17-21, 2017
6. **17th Plant Genomics Conference in China**, Fuzhou, China, Aug. 19-21, 2016
7. **11th National Congress of Chemical Ecology**, Wuhan, China, July 22-24, 2016
8. **National Congress of Plant Biology**, Changchun, China, Oct. 9-12, 2015
9. **International Symposium on “From Ecosystems to Modern Agriculture”**, Lanzhou, China, June 26–27, 2015
10. **13th Congress on Parasitic Plants**, Kunming, China, 5-10 July 2015
11. **3rd International Conference on Plant Metabolism**, Xiamen, China, July 2-5, 2014
12. **10th Solanaceae Conference (SOL 2013)**, Beijing, China, Oct. 13-17, 2013
13. The important roles of MAPKs in plant defense against herbivores. **Invited talk, Institute of Zoology, Chinese Academy of Sciences**, Beijing, China, Jun 4, 2013
14. Herbivory-induced signaling in plants – MAPKs go ahead. **Invited talk, Institute of Botany, Chinese Academy of Sciences**, Beijing, China, Nov. 12, 2012
15. 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
16. MPK4 in stress signaling. **Invited talk, Huazhong Agricultural University**, Wuhan, China, Jul. 18, 2012
17. Functions of MAPK signaling in plant resistance to herbivores. **Invited lecture, Chinese Academy of Forestry**, Beijing, China, Dec. 27, 2011
18. 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
19. Herbivory-Induced Signaling in Plants: Perception and Action. **Invited lecture, Anhui Agricultural University**, Feb 21, 2011
20. 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
21. NaCDPK1 mediates heat resistance in *Nicotiana attenuata*. **Max Planck Institute for Chemical Ecology**, Jena, Germany, Sept. 25-26, 2008
22. MAP kinases regulate *Nicotiana attenuata*'s defense responses to herbivory. Department of Life Sciences, **Nanjing University**, Nanjing, China, June 6, 2008
23. 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

24. MAP kinases regulate defense responses to herbivory in *Nicotiana attenuata*; **Max Planck Institute for Chemical Ecology**, Jena, Germany, Sept. 2007
25. 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
26. 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

TEACHING

1. “Plant Molecular Biology”, Kunming Institute of Botany, Chinese Academy of Sciences, Kunming, June 2013
2. “Transfection of Arabidopsis Protoplasts”, Max Planck International Research School, basic lecture, Max Planck Institute for Chemical Ecology, Jena, Feb. 6-8, 2012
3. “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
4. “Application of quantitative real-time PCR in ecological studies”, Ecology Workshop, Friedrich Schiller University, Jena, July 2010
5. “Basic Knowledge of Molecular Cloning”, Max Planck International Research School, basic lecture, Max Planck Institute for Chemical Ecology, Jena, June 2009
6. “Molecular Cloning of PCR Products”, Ecology Workshop, Friedrich Schiller University, Jena, July 2008

AWARDS RECEIVED

Jun. 2008, Otto Hahn medal, Max Planck Society.

GRANTS

1. Jan. 2021-Dec. 2023, Yunnan Innovation Team Project, Yunnan Provincial Science and Technology Department.
2. June 2020, General and Key Project of Applied Basic Research Program of Yunnan (2020-2022)
3. Jan. 2020, National Science Foundation of China (2020-2023)
4. Aug. 2017, Key International Collaborative Program, Chinese Academy of Sciences (2018-2020)
5. Jan. 2016, National Science Foundation of China-Yunnan Joint Grant (2016-2019)
6. Jan. 2015, National Science Foundation of China (2015-2018)
7. May 2014, the Strategic Priority Research Program of the Chinese Academy of Sciences (2014-2019)
8. Oct. 2013, “Max Planck Partner Group” grant, from the Max Planck Society (2013-2018).
9. Oct. 2012, “Top talents program of Yunnan Province” (No. 2012HA016), from Yunnan Global Talents Affairs Leading Group (2012-2015)
10. Jan. 2012, awarded the “Thousand Young Talent Program” from China (2012-2015)
11. Startup grant from the Kunming Institute of Botany, Chinese Academy of Sciences (2012-2015)

12. Dec. 2011, awarded Marie Curie International Outgoing Fellowship (scored 96.1/100) from the European Union (hosts: Prof. Detlef Weigel, Max Planck Institute for Developmental Biology, and Prof. Lynne E. Maquat, University of Rochester)

SUPERVISION

Postdocs and Visiting Scientists

1. Canrong Ma (Dec. 2022-present), Ph.D. from Kunming Institute of Botany, CAS
2. Mou Zhang (Jan. 2022-present), Ph.D. from Nanjing Agricultural University
3. Jingxiong Zhang (Dec. 2020-present), Ph.D. from Kunming Institute of Botany, CAS
4. Yuxing Xu (Jul. 2019-present), postdoc, Ph.D. from Kunming Institute of Botany, CAS
5. Juan Song (Dec. 2018-Apr. 2022), postdoc, Ph.D. from Kunming Institute of Botany, CAS
6. Yunting Lei (Jan. 2018-Dec. 2020), Ph.D. from Sichuan University
7. Sen Li (Dec. 2017-present), postdoc, Ph.D. from Zhejiang University
8. Hui Liu (Apr. 2016-June 2019), postdoc, Ph.D. from Kunming Institute of Zoology, CAS
9. Yan Qin (Jul. 2014-Dec. 2017), postdoc, Ph.D. from Kunming Institute of Zoology, CAS
10. Dale Zhang (Oct. 2014.10-Jan. 2015), visiting scientist, Professor at Henan University
11. Christian Hettenhausen (Apr. 2012-Apr. 2018), postdoc, Ph.D. from the Max Planck Institute for Chemical Ecology, Germany, funded by the "Fellowship for Young International Scientists" program from CAS.
12. Jinfeng Qi (Jun. 2012-Dec. 2016), postdoc, Ph.D. from Zhejiang University, China.
13. Maria Heinrich (Oct. 2012-Dec. 2012), visiting scientist, from the Max Planck Institute for Chemical Ecology, Germany.

Ph.D. Theses

1. Qi Zhang (Sept. 2021-present), Kunming Institute of Botany, CAS
2. Shuhan Zhang (Sept. 2021-present), Kunming Institute of Botany, CAS
3. Junyu He (Sept. 2022-present), Kunming Institute of Botany, CAS
4. Deqing Rong (Sept. 2021-present), Kunming Institute of Botany, CAS
5. Lijian Zhang (Sept. 2021-present), Kunming Institute of Botany, CAS
6. Zerui Feng (Sept. 2020-present), Kunming Institute of Botany, CAS
7. Tianyin Zheng (Sept. 2019-present), Kunming Institute of Botany, CAS
8. Jianxiang Yang (Sept. 2019-present), Kunming Institute of Botany, CAS
9. Man Zhao (Sept. 2019-present), Kunming Institute of Botany, CAS
10. Xijie Zheng (Sept. 2017-present), Kunming Institute of Botany, CAS
11. Che Zhan (Sept. 2017-present), Kunming Institute of Botany, CAS
12. Yohannes Besufekad (Jan. 2019-June 2024), Kunming Institute of Botany, CAS
13. Canrong Ma (Sept. 2018-Nov. 2022), Kunming Institute of Botany, CAS
14. Na Xue (Sept. 2018-Nov. 2022), Kunming Institute of Botany, CAS
15. Shalan Li (Sept. 2016-Nov. 2019), Kunming Institute of Botany, CAS
16. Nian Liu (Sept. 2015-June 2020), Kunming Institute of Botany, CAS

17. Saif Ul Malook (Oct. 2015- June 2019), Kunming Institute of Botany, CAS
18. Jingxiong Zhang (Sept. 2014-Dec. 2020), Kunming Institute of Botany, CAS
19. Yuxing Xu (Sept. 2014- June 2019), Kunming Institute of Botany, CAS
20. Cuiping Zhang (Sept. 2013-June 2020), Kunming Institute of Botany, CAS
21. Chengkai Lu (Sept. 2014-July 2018), Kunming Institute of Botany, CAS
22. Yunting Lei (Apr. 2014-Nov. 2017), The interaction among abscisic acid, jasmonic acid, and strigolactones for regulating plant salt-tolerance and herbivore-resistance. Sichuan University
23. Juan Song (Sept. 2013- July 2018), Kunming Institute of Botany, CAS
24. Huifu Zhuang (Sept. 2013-July 2018), Kunming Institute of Botany, CAS
25. Juan Li (Jan. 2013- Jan. 2016), Studies on the response of the parasitic plant *Cuscuta* to phytohormones and herbivory-induced inter-plant signaling mediated by *Cuscuta*. Huazhong Agricultural University
26. Dahai Yang (Apr. 2007-Mar. 2011), 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.
27. Hendrik Wünsche (Jul. 2008-Jun. 2011), 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.
28. Christian Hettenhausen (Feb. 2007-Dec. 2011), 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.
29. Stefan Meldau (Jan. 2007-Mar. 2012), Early herbivory-induced responses in plants. Max Planck Institute for Chemical Ecology.
30. Maria Heinrich (Jan. 2009-Jul. 2012), Functions of MAPKKs in plant resistance to herbivore in *Nicotiana attenuata*. Max Planck Institute for Chemical Ecology.

Master Theses

1. Runsen Li (Sept. 2024-present), Kunming Institute of Botany, CAS
2. Xin Zhang (Sept. 2024-present), Kunming Institute of Botany, CAS
3. Wenxing Li (Sept. 2020-June 2024), Kunming Institute of Botany, CAS
4. Zhongxiang Su (Sept. 2019-June 2022), Kunming Institute of Botany, CAS
5. Jinge Bian (Sept. 2018-June 2021), Kunming Institute of Botany, CAS
6. Lei Gao (Sept. 2016-June 2019), Yunnan University
7. Jiaxin Wen (Sept. 2016- June 2019), Yunnan University
8. Menghua Mu (Sept. 2015-July 2018), Kunming Institute of Botany, CAS
9. Lingdan Zhang (Sept. 2013-July 2016), A study on the application of a PEG-mediated transient gene expression system in maize mesophyll protoplasts, Anhui Agricultural University.
10. Chuan Shi (May 2010-Jun. 2011), Die Bedeutung der nonsense-mediated mRNA decay Proteine UPF1, UPF2 und UPF3 im Hinblick auf die Pflanzenentwicklung und der abiotischen und biotischen Stressantwort.

Diploma Theses

1. Christian Hettenhausen (10.2004-07.2006), Characterization of a trypsin protease inhibitor-deficient ecotype of *Nicotiana attenuata* collected from Arizona.
2. Stefan Meldau (Jan. 2005–Dec. 2006), MAP kinase signaling mediates plant defense against herbivores.

Bachelor Theses

1. Yvonn Stampnik (11.2008-05.2009), BAK1 regulates herbivore feeding-induced jasmonic acid accumulation and secondary metabolite contents in *Nicotiana attenuata*