

## Curriculum Vitae

**Chi Zhang, Ph.D.**

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### **Education**

Ph.D. in Plant Molecular Genetics, University of Tennessee, Knoxville, USA, July 2019,  
*“Functional Study of Plant SABATH Methyltransferases in the Biosynthesis of Methyl Cinnamate, Juvenile Hormone III and Methyl Gibberellins”*

M.Sc. in Molecular Ecology, Institute of Applied Ecology, Chinese Academy of Sciences, China, July 2015,  
*“Functional Study of the GmIDA Genes in Soybean and Transcriptome Data Analysis”*

B.Sc. in Ecology, Sun Yat-sen University, China, June 2012

### **Employment**

10/2019 – 3/2022      Post-doctoral Research Fellow, School of Science, Westlake University  
4/2022 – 1/2024      Post-doctoral Research Fellow, Department of Plant and Environmental Sciences, University of Copenhagen

### **Honors and Awards**

AgResearch Travel Award, UT Institute of Agriculture, 2018  
Outstanding Student Leadership, Sun Yat-sen University, 2008, 2010

### **Professional Services**

Reviewer for *Horticulture Research*, *Plant Direct*

### **Publications**

Wang, W., **Zhang, C.**, Guo, H., & Chen, F. (2025). A novel auxin methyltransferase of the SABATH family for phenylacetic acid methylation is conserved in potato and tomato. *Plant physiology and biochemistry* : PPB, 224, 109972. Advance online publication. <https://doi.org/10.1016/j.plaphy.2025.109972>

Liang, F., Xie, Y., **Zhang, C.**, Zhao, Y., Motawia, M. S., Kampranis, S. C. (2025). Elucidation of the final steps in Taxol biosynthesis and its biotechnological production. *Nature Synthesis*, <https://doi.org/10.1038/s44160-025-00800-z>

Chen, L., Gao, R., Wei, G., Luo, S., Köllner, T. G., Xu, H., Jiang, Y., **Zhang, C.**, Chen, X., Dickschat, J. S., Gershenzon, J., Li, S., Chang, Y., & Chen, F. (2025). Microbial-type terpene synthases significantly contribute to the terpene profile of glandular trichomes of

- the fern *Dryopteris fragrans* (L.). *The Plant journal : for cell and molecular biology*, 121(6), e70079. <https://doi.org/10.1111/tpj.70079>
- Chen, X., Nowicki, M., Wadl, P. A., **Zhang, C.**, Köllner, T. G., Payá-Milans, M., Huff, M. L., Staton, M. E., Chen, F., & Trigiano, R. N. (2023). Chemical profile and analysis of biosynthetic pathways and genes of volatile terpenes in *Pityopsis ruthii*, a rare and endangered flowering plant. *PloS one*, 18(6), e0287524.
- Magnus, N., von Reuss, S. H., Braack, F., **Zhang, C.**, Baer, K., Koch, A., Hampe, P. L., Sutour, S., Chen, F., & Piechulla, B. (2023). Non-canonical Biosynthesis of the Brexane-Type Bishomosesquiterpene Chlororaphen through Two Consecutive Methylation Steps in *Pseudomonas chlororaphis* O6 and *Variovorax boronicumulans* PHE5-4. *Angewandte Chemie (International ed. in English)*, 62(29), e202303692.
- Chen, X., Nowicki, M., Wadl, P. A., **Zhang, C.**, Köllner, T. G., Payá-Milans, M., Huff, M. L., Staton, M. E., Chen, F., & Trigiano, R. N. (2023). Chemical profile and analysis of biosynthetic pathways and genes of volatile terpenes in *Pityopsis ruthii*, a rare and endangered flowering plant. *PloS one*, 18(6), e0287524.
- Zhang, W., Jiang, Y., Chen, F., Guan, Z., Wei, G., Chen, X., **Zhang, C.**, Köllner, T. G., Chen, S., Chen, F., & Chen, F. (2022). Dynamic regulation of volatile terpenoid production and emission from *Chrysanthemum morifolium capitula*. *Plant physiology and biochemistry : PPB*, 182, 11–21.
- Chen, S., **\*Zhang, C.**, & Zhang, L. (2022). Investigation of the Molecular Landscape of Bacterial Aromatic Polyketides by Global Analysis of Type II Polyketide Synthases. *Angewandte Chemie (International ed. in English)*, 61(24), e202202286. (\*Co-first authors)
- Jiang, Y., Liu, G., Zhang, W., **Zhang, C.**, Chen, X., Chen, Y., Yu, C., Yu, D., Fu J., Chen, F., 2021. Biosynthesis and emission of methyl hexanoate, the major constituent of floral scent of a night-blooming water lily *Vicoria cruziana*. *Phytochemistry*. 191:112899
- Piechulla, B., **Zhang, C.**, Eisenschmidt-Bönn, D., Chen, F., Magnus, N., 2021. Non-canonical substrates for terpene synthases in bacteria are synthesized by a new family of methyltransferases. *FEMS Microbiol Rev.* fuab024.
- Zhang, C.**, Chaiprasongsuk, M., Chanderbali, A.S., Chen, X., Fu, J., Soltis, D.E., Chen, F., 2020. Origin and evolution of a gibberellin-deactivating enzyme GAMT. *Plant Direct*. 4(12):e00287.
- Zhang, L., Chen, F., Zhang, X., Li, Z., Zhao, Y., Lohaus, R., Chang, X., Dong, W., Ho, S.Y.W., Liu, X., Song, A., Chen, J., Guo, W., Wang, Z., Zhuang, Y., Wang, H., Chen, X., Hu, J., Liu, Y., Qin, Y., Wang, K., Dong, S., Liu, Y., Zhang, S., Yu, X., Wu, Q., Wang, L., Yan, X., Jiao, Y., Kong, H., Zhou, X., Yu, C., Chen, Y., Li, F., Wang, J., Chen, W., Chen, X., Jia, Q., **Zhang, C.**, Jiang, Y., Zhang, W., Liu, G., Fu, J., Chen, F., Ma, H., Van de Peer, Y., Tang, H., 2020. The water lily genome and the early evolution of flowering plants. *Nature*. 577(7788):79-84.
- Wei, G., Eberl, F., Chen, X., **Zhang, C.**, Unsicker, S.B., Köllner, T.G., Gershenzon, J., Chen, F., 2020. Evolution of isoprenyl diphosphate synthase-like terpene synthases in fungi. *Sci Rep*. 10(1):14944
- Zhang, C.**, Chen, X., Crandall-Stotler, B., Guo, H., Qian, P., Köllner, T. and Chen, F., 2019. Biosynthesis of methyl (*E*)-cinnamate in the liverwort *Conocephalum salebrosum* and evolution of cinnamic acid methyltransferase. *Phytochemistry*. 164, 50-59.

- \*Chaiprasongsuk, M., \***Zhang, C.**, Qian, P., Chen, X., Li, G., Trigiano, R. N., Guo, H. and Chen, F., 2018. Biochemical characterization in Norway spruce (*Picea abies*) of SABATH methyltransferases that methylate phytohormones. *Phytochemistry*. 149, 146-154. (\*Co-first authors)
- Zhang, C.**, Gao, Z., Dong, Y. and Cui, M., 2015. Transcriptome analysis of inflorescences from four soybean cultivars. *Chinese Journal of Ecology*. 34, 3391-3396. (*In Chinese*)
- Li, Y., Gao, Z., **Zhang, C.**, Li, N. and Liu, C., 2015. Research progress on the molecular regulation mechanism of anthocyanin biosynthesis pathway. *Chinese Journal of Ecology*. 34, 2937-2942. (*In Chinese*)
- Song, Q., Liu, C., Gao, Z., Li, Y., **Zhang, C.** and Cui, M., 2014. Optimal temperature for hsp18.2 promoter in gene expression of anthocyanin biosynthesis of *Antirrhinum majus*. *Chinese Journal of Ecology*. 33, 2436-2441. (*In Chinese*)

### **Conference Presentation**

“Biochemical Characterization of SABATH Methyltransferases in Liverworts” iMOSS 2018, St. Petersburg, Florida, June 2018.

### **Student Supervision**

Helena Buhrgard, Msc Student, Lund University, 2024

Thesis: “Expression of Terpene Synthases from Edible Fungi using Yeast Chassis”

### **Patents**

Method for producing the anticancer agent taxol (pending)

Method for producing taxol and its analogs (pending)

### **References**

Prof. Sotirios Kampranis

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Relationship: Supervisor during postdoctoral research on terpene gene clusters.

Prof. Feng Chen

Department of Plant Sciences

University of Tennessee

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Relationship: PhD Advisor during my doctoral research on SABATH methyltransferases.