

# CURRICULUM VITAE

| Personal Information  |   |        |                 |
|---|---|--------|-----------------|
| Name  | Longfu Zhu  | Gender | Male            |
| Position Title  | Professor   |        |                 |
| Working Department  | College of Plant Science and Technology   |        |                 |
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| Research Interest   |   |        |                 |
| <p><i>Verticillium</i> wilt caused by <i>Verticillium dahliae</i> is the most devastating disease for cotton (<i>Gossypium hirsutum</i>) production in China. Our group is interested in elucidating plant immune signaling pathways and virulence factors from fungus involved in cotton-<i>V. dahliae</i> interaction through cellular, functional genomic, genetic, biochemical and bioinformatic approaches with the resistant germplasm ‘7124’ (<i>G. barbadense</i>) and the high aggressive strain ‘V991’. In addition, plant immunity is inextricably linked with plant development and environmental stresses. We are also interested in understanding the signaling crosstalk that orchestrates plant development and immune response. Ultimately, knowledge gained from fundamental research will be applied to improve cotton resistance to <i>Verticillium</i> wilt and other biotic/abiotic stresses.</p> |   |        |                 |
| Professional Memberships  |   |        |                 |
| <ul style="list-style-type: none"> <li>➤</li> <li>➤</li> </ul>  |   |        |                 |
| Other Roles   |   |        |                 |
| <ul style="list-style-type: none"> <li>➤</li> <li>➤</li> </ul>  |   |        |                 |
| Education & Working Experience  |   |        |                 |
| <p>Ph. D. 1999-2004, Huazhong Agricultural University<br/>           Major: Agronomy    Minor: Cotton Genetics and Breeding<br/>           B. Sc. 1995-1999 Huazhong Agricultural University<br/>           Major: Agronomy</p> <p>Visit Professor:</p>   |   |        |                 |



2007.12-2008.12 Biological Department of Texas Tech Univeristy, USA

2014.2-2014.5 Phytopathology Group, Wageningen University & Research Center, Netherlands

## Publications

1. Weifeng Guo, Li Jin, Yuhuan Miao, Xin He, Qin Hu, Kai Guo, Longfu Zhu\*, Xianlong Zhang. An ethylene response-related factor, GbERF1-like, from *Gossypium barbadense* improves resistance to *Verticillium dahliae* via activating lignin synthesis, *Plant Molecular Biology*, doi10.1007/s11103-016-0467-6
2. Wei Gao, Lu Long, Li Xu, Keith Lindsey, Xianlong Zhang, Longfu Zhu. Suppression of the homeobox gene HDTF1 enhances resistance to *Verticillium dahliae* and *Botrytis cinerea* in cotton. *J Integr Plant Biol.* 2015 Sep 26. doi: 10.1111/jipb.12432
3. Longqing Sun, Longfu Zhu, Li Xu, Daojun Yuan, Ling Min & Xianlong Zhang\*. Cotton cytochrome P450 CYP82D regulates systemic cell death by modulating the octadecanoid pathway. *Nature Communication*, 2014,5:5372.
4. Chao Li, Xin He, Xiangyin Luo, Li Xu, Linlin Liu, Ling Min, Li Jin, Longfu Zhu\*, Xianlong Zhang. Cotton WRKY1 Mediates the Plant Defense-to-Development Transition during Infection of Cotton by *Verticillium dahliae* by Activating JASMONATE ZIM-DOMAIN1 Expression. *Plant Physiology*, 2014, 166(4): 2179-2194
5. Lian Xu, Wenwen Zhang, Xin He, Min Liu, Kun Zhang, Muhammad Shaban, Longqing Sun, Jiachen Zhu, Yijing Luo, Daojun Yuan, Xianlong Zhang, and Longfu Zhu\*. Functional characterization of cotton genes responsive to *Verticillium dahliae* through bioinformatics and reverse genetics strategies. *Journal of Experimental Botany*, 2014, 65(22):6679-6692
6. Liu L L, Zhang W W, Zhou Y, Miao Y H, Xu L, Liu M, Zhang K, Zhang X L, Zhu L F\*. (2014). The resistance of cotton and tomato to *Verticillium dahliae* from cotton is independent on Ve1. *Scientia Sinica Vitae* 44:803-814.
7. Gao W, Long L, Zhu L F\*, Xu L, Gao W H, Sun L Q, Liu L L, and Zhang X L\* (2013). Proteomic and virus-induced gene silencing (VIGS) analyses reveal that gossypol, brassinosteroids, and jasmonic acid contribute to the resistance of cotton to *Verticillium dahliae*. *Molecular & Cellular Proteomics* 12, 3690-3703.
8. Xu L, Jin L, Long L, Liu L L, He X, Gao W, Zhu L F\*, Zhang X L. (2012). Overexpression of GbWRKY1 positively regulates the Pi starvation response by alteration of auxin sensitivity in *Arabidopsis*. *Plant Cell Reports* 31(12): 2177-2188.
9. Xu L, Zhu L F, Tu L L, Liu L L, Yuan D J, Jin L, Long L, and Zhang X L\*. (2011). Lignin metabolism has a central role in the resistance of cotton to the wilt fungus *Verticillium dahliae* revealed by RNA-Seq-dependent transcriptional analysis and histochemistry. *J Experimental Botany* 62, 5607-5621.

## **Additional Information**