

# CURRICULUM VITAE

Personal Information			
Name	Xiyan Yang	Gender	Female
Position Title		Associate Professor	
Working Department		College of Plant Science and Technology	
Email	yxy@mail.hzau.edu.cn		
Address	Huazhong Agricultural University, Shizishan 1, Hongshan, Wuhan, Hubei 430070, China		
Tel	027-87283955	Fax	027-87280196
Research Interest			
Molecular mechanism of resistance to drought stress in cotton Molecular mechanism of tolerance to high/low-temperature stress in cotton Balance regulation of plant development and stress resistance			
Professional Memberships			
The Genetics Society of Hubei Hubei Society of Cotton Sci-tech			
Other Roles			
No			
Education & Working Experience			
<b>EDUCATION</b> <b>Ph. D.</b> 2003-2009, Huazhong Agricultural University <b>Major:</b> Crop Genetics and Breeding <b>Advisor:</b> Professor Xianlong Zhang <b>B. Sc.</b> 1999-2003 Huazhong Agricultural University <b>Major:</b> Agronomy			
<b>WORK EXPERIENCE:</b> <b>May 2009 – at present:</b> Work in Huazhong Agricultural University as a teacher major in cotton genetics and breeding. Take classes of MOLECULAR BIOLOGY, PLANT BIOTECHNOLOGY and GENETICS for			



undergraduate student.

**May 2009 – at present:** Work in National Key Laboratory of Crop Genetic Improvement and National Center of Plant Gene Research (Wuhan) as a research fellow major in cotton genetics and breeding.

**Sep 2010 – Sep 2011:** Work in Integrative Cell Biology Laboratory in School of Biological and Biomedical Sciences (University of Durham) as a visiting research fellow in Arabidopsis development.

## Publications

### Books: authored

Yang XY, Zhang XL. Chapter 23 Developmental and molecular aspects of somatic embryogenesis. In: Plant Tissue Culture: Development and Biotechnology, Trigiano RN and Gray DJ (ed.), Taylor & France Group, CRC Press, LLC, Boca Raton, USA, 307-325

Fonseka DLCK, Yang X, Mudge A, Topping JF & Lindsey K. Embryogenesis in Arabidopsis: Signalling, Genes and the Control of Identity. In Seed Genomics. Becraft, P.W. Wiley. (2013) in press.

### Journal papers: academic

1. **Xiyan Yang**, Xianlong Zhang\*, Daojun Yuan, Fangyan Jin, Yunchao Zhang, Jiao Xu. Transcript profiling reveals complex auxin signalling pathway and transcription regulation involved in dedifferentiation and redifferentiation during somatic embryogenesis in cotton. *BMC Plant Biology*, 2012, 12: 110
2. **Xiyan Yang**#, Lichen Wang#, Daojun Yuan, Keith Lindsey, Xianlong Zhang\*. Small RNA and degradome sequencing reveal complex miRNA regulation during cotton somatic embryogenesis, *Journal of Experimental Botany*, 2013, 64(6): 1521-1536
3. Fangyan Jin, Lisong Hu, Daojun Yuan, Jiao Xu, Wenhui Gao, Liangrong He, **Xiyan Yang**\*, Xianlong Zhang\*. Comparative transcriptome analysis between somatic embryos (SEs) and zygotic embryos in cotton: evidence for stress response functions in SE development. *Plant Biotechnol J*, 2014, 12: 161-173
4. Ting Zhou, **Xiyan Yang**\*, Lichen Wang, Jiao Xu, and Xianlong Zhang. GhTZF1 regulates drought stress responses and delays leaf senescence by inhibiting reactive oxygen species accumulation in transgenic Arabidopsis. *Plant Mol Biol*, 2014, 85: 163-177
5. Liangrong He, **Xiyan Yang**\*, Lichen Wang, Longfu Zhu, Ting Zhou, Jinwu Deng, Xianlong Zhang. Molecular cloning and functional characterization of a novel cotton CBL-interacting protein kinase gene (GhCIPK6) reveals its involvement in multiple abiotic stress tolerance in transgenic plants. *Biochemical and Biophysical Research Communications*, 2013, 435: 209-215
6. **Xiyan Yang**, Xianlong Zhang \*. Regulation of Somatic Embryogenesis in Higher Plants. *Crit Rev Plant Sci*, 2010, 29:1-22
7. **Xiyan Yang**, Xianlong Zhang\*, Lili Fu, Ling Min, Guanze Liu. Multiple shoots induction in wild cotton (*G. bickii* Prokhanov) and cytogenetic analysis of the regenerated plants. *Biologia*, 2010, 65(3): 496-505
8. **Xiyan Yang**, Lili Tu, Longfu Zhu, Lili Fu, Ling Min, Xianlong Zhang\*. Expression profile analysis of genes involved in cell wall regeneration during protoplast culture in cotton by suppression subtractive hybridization and macroarray. *J Exp Bot*, 2008, 59: 3661-3674
9. **Xiyan Yang**, Xiaoping Gou, Xianlong Zhang\*, Yichun Nie, Shuangxia Jin. Plant regeneration from *Gossypium davidsonii* protoplast via somatic embryogenesis. *Biol Plant*, 2007, 51(3): 533-537
10. **Xiyan Yang**, Xianlong Zhang\*, Shuangxia Jin, Lili Fu, Linggang Wang. Production and characterization of asymmetric hybrids between upland cotton Coker 201 (*Gossypium*

- hirsutum) and wild cotton (*G. klotzschianum* Anderss). *Plant Cell Tiss Organ Cult*, 2007, 89: 225-235
11. Yunchao Zhang, **Xiyan Yang\***, Liangrong He, Lebin Lin, Ting Zhou, Fangyan Jin, Xianlong Zhang. Optimizing Somatic Embryogenesis System and Histological Analysis of Somatic Embryogenesis in *Gossypium hirsutum* cv. Lumian 6. *Journal of Huazhong Agricultural University*, 2014, 33(2): 74-79
  12. Lisong Hu, **Xiyan Yang**, Yuan DJ, Zeng FC, Xianlong Zhang. GhHmgB3 deficiency deregulates proliferation and differentiation of cells during somatic embryogenesis in cotton. *Plant Biotechnol J*, 2011, 9: 1038-1048
  13. Lili Fu, **Xiyan Yang**, Xianlong Zhang\*, Zhiwei Wang, Changhui Feng, Chuanxiang Liu, Peiyong Jiang, Jinlong Zhang. Regeneration and identification of interspecific asymmetric somatic hybrids obtained by donor-recipient fusion in cotton. *Chinese Sci Bull*, 2009, 54: 3035-3044
  14. Wenxin Tang, Lili Tu\*, **Xiyan Yang**, Jiafu Tan, Fenglin Deng, Juan Hao, Kai Guo, Keith Lindsey, Xianlong Zhang\*. The calcium sensor GhCaM7 promotes cotton fiber elongation by modulating reactive oxygen species (ROS) production, *New Phytologist*, 2014, 202(2): 509-520
  15. Ling Min, Yaoyao Li, Qin Hu, Longfu Zhu, Wenhui Gao, Yuanlong Wu, Yuanhao Ding, Shiming Liu, **Xiyan Yang**, Xianlong Zhang\*. Sugar and auxin signaling pathways respond to high temperature stress during anther development as revealed by transcript profiling analysis in cotton. *Plant Physiol*, 2014, 164(3): 1293-1308
  16. Ling Min, Qin Hu, Yaoyao Li, Jiao Xu, Yizan Ma, Longfu Zhu, **Xiyan Yang**, Xianlong Zhang\*. LEAFY COTYLEDON1-CASEIN KINASE I-TCP15-PHYTOCHROME INTERACTING FACTOR4 network regulates somatic embryogenesis by regulating auxin homeostasis. *Plant Physiology*, 2015, Doi: 10.1104/pp.15.01480
  17. Yuanlong Wu, Ling Min, Zancheng Wu, Li Yang, Longfu Zhu, **Xiyan Yang**, Daojun Yuan, Xiaoping Guo and Xianlong Zhang\*. Defective pollen wall contributes to male sterility in the male sterile line 1355A of cotton. *Scientific Reports*, 2015, 5: 9608
  18. Lian Xu, Kashif Rafiq Zahid, Liangrong He, Wenwen Zhang, Xin He, Xianlong Zhang, **Xiyan Yang**, Longfu Zhu\*. GhCAX3 gene, a novel Ca<sup>2+</sup>/H<sup>+</sup> exchanger from cotton, confers regulation of cold response and ABA induced signal transduction. *PLoS ONE*, 2013, 8(6): e66303
  19. Lu Long, Wei Gao, Li Xu, Min Liu, Xiangyin Luo, Xin He, **Xiyan Yang**, Xianlong Zhang, Longfu Zhu\*. GbMPK3, a mitogen-activated protein kinase from cotton, enhances drought and oxidative stress tolerance in tobacco. *Plant Cell Tissue Organ Cult*, 2014, 116(2): 153-162
  20. Guanze Liu, Shuangxia Jin, Xuyan Liu, Jiafu Tan, **Xiyan Yang**, Xianlong Zhang\*. Overexpression of Arabidopsis cyclin D2;1 in cotton results in leaf curling and other plant architectural modifications. *Plant Cell Tissue Organ Cult*, 2012, 110(2): 261-273
  21. Jinglin Cao, Xianlong Zhang, Shuangxia Jin, **Xiyan Yang**, Huaguo Zhu, Lili Fu. An Efficient Culture System for Synchronous Control of Somatic Embryogenesis in Cotton (*Gossypium hirsutum* L). *Acta Agronomica Sinica* 2008, 34: 224-231
  22. Yichun Nie, Xianlong Zhang, **Xiyan Yang**, Xiaoping Guo. Study on Heterosis and Combining Ability of Photosynthetic Characters and Economic Traits in Insect-resistance Hybrid Cotton. *Journal of Huazhong Agricultural University*, 2005, 24: 5-9

### Additional Information

No