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一、教育及工作经历

2018 至今，南京农业大学，资源与环境科学学院，环境科学系，副教授

(2019-2020，Dartmouth College, Department of Biological Sciences, Visiting Scholar)

2013-2017，南京农业大学，资源与环境科学学院，环境科学系，讲师

2007-2012，南京农业大学，资源与环境科学学院，植物营养系，博士

2003-2007，南京农业大学，生命科学学院，生物技术，理学学士

二、研究领域及方向

研究领域：植物营养与环境生物学

研究方向：1) 植物重金属吸收、转运与积累的分子机理

2) 甲基砷诱发水稻直穗病的生理与分子机制

3) 植物重金属积累阻控途径与分子机理

三、主持科研项目

1、国家自然科学基金面上项目 (31972500)

2、国家重点研发计划项目课题 (2016YFD0100704)

3、国家重点研发计划项目课题 (2018YFD0800700)

4、国家自然科学基金青年项目 (31401936)

5、中央高校基本科研业务费项目(KYZ201873)

四、发表论文

1. **Tang, Z.**, Chen, Y., Miller, A.J., and Zhao, F.-J. (2019). The C-type ATP-binding cassette transporter OsABCC7 is involved in the root-to-shoot translocation of arsenic in rice. *Plant and Cell Physiology*.

2. **Tang, Z.**, Cai, H., Li, J., Lv, Y., Zhang, W., and Zhao, F.-J. (2017a). Allelic variation of NtNramp5 associated with cultivar variation in cadmium accumulation in tobacco. *Plant and Cell Physiology* 58(9)**,** 1583-1593.

3. **Tang, Z.**, Chen, Y., Chen, F., Ji, Y., and Zhao, F.-J. (2017b). OsPTR7 (OsNPF8.1), a Putative Peptide Transporter in Rice, is Involved in Dimethylarsenate Accumulation in Rice Grain. *Plant and Cell Physiology* 58(5)**,** 904-913. doi: 10.1093/pcp/pcx029.

4. **Tang, Z.**, Kang, Y., Wang, P., and Zhao, F.-J. (2016a). Phytotoxicity and detoxification mechanism differ among inorganic and methylated arsenic species in Arabidopsis thaliana. *Plant and Soil* 401(1-2)**,** 243-257. doi: 10.1007/s11104-015-2739-3.

5. **Tang, Z.**, Lv, Y., Chen, F., Zhang, W., Rosen, B.P., and Zhao, F.-J. (2016b). Arsenic Methylation in Arabidopsis thaliana Expressing an Algal Arsenite Methyltransferase Gene Increases Arsenic Phytotoxicity. *Journal of Agricultural and Food Chemistry* 64(13)**,** 2674-2681. doi: 10.1021/acs.jafc.6b00462.

6. **Tang, Z.**, Fan, X., Li, Q., Feng, H., Miller, A.J., Shen, Q., et al. (2012). Knockdown of a Rice Stelar Nitrate Transporter Alters Long-Distance Translocation But Not Root Influx. *Plant Physiology* 160(4)**,** 2052-2063. doi: 10.1104/pp.112.204461.

7. Wang, C., **Tang, Z.**, Zhuang, J.-Y., Tang, Z., Huang, X.-Y., and Zhao, F.-J. (2019). Genetic mapping of ionomic quantitative trait loci in rice grain and straw reveals OsMOT1; 1 as the putative causal gene for a molybdenum QTL qMo8.

Molecular Genetics and Genomics, 1-17.

8. Zhang, L., Wu, J., **Tang, Z.**, Huang, X.-Y., Wang, X., Salt, D.E., et al. (2019). Variation in the BrHMA3 coding region controls natural variation in cadmium accumulation in Brassica rapa vegetables. Journal of experimental botany 70(20), 5865-5878.

9. Lu, C., Zhang, L., **Tang, Z.**, Huang, X.-Y., Ma, J.F., and Zhao, F.-J. (2019). Producing cadmium-free Indica rice by overexpressing OsHMA3. *Environment international* 126**,** 619-626. doi: 10.1016/j.envint.2019.03.004.

10. Guo, A., Ding, L., **Tang, Z.**, Zhao, Z., and Duan, G. (2019). Microbial response to CaCO3 application in an acid soil in southern China. *Journal of environmental sciences (China)* 79**,** 321-329. doi: 10.1016/j.jes.2018.12.007.

11. Sui, F., Zhao, D., Zhu, H., Gong, Y., **Tang, Z.**, Huang, X.-Y., et al. (2019). Map-based cloning of a new total loss-of-function allele of OsHMA3 causing high cadmium accumulation in rice grain. *Journal of experimental botany*. doi: 10.1093/jxb/erz093.

12. Wang, M., Tang, Z., Chen, X.-P., Wang, X., Zhou, W.-X., **Tang, Z.**, et al. (2019). Water management impacts the soil microbial communities and total arsenic and methylated arsenicals in rice grains. *Environmental pollution (Barking, Essex : 1987)* 247**,** 736-744. doi: 10.1016/j.envpol.2019.01.043.

13. Sui, F.-Q., Chang, J.-D., **Tang, Z.**, Liu, W.-J., Huang, X.-Y., and Zhao, F.-J. (2018). Nramp5 expression and functionality likely explain higher cadmium uptake in rice than in wheat and maize. *Plant and Soil* 433(1-2)**,** 377-389. doi: 10.1007/s11104-018-3849-5.

14. Sun, S.-K., Chen, Y., Che, J., Konishi, N., **Tang, Z.**, Miller, A.J., et al. (2018). Decreasing arsenic accumulation in rice by overexpressing OsNIP1;1 and OsNIP3;3 through disrupting arsenite radial transport in roots. *The New phytologist*. doi: 10.1111/nph.15190.

15. Guo, A., Ding, L., **Tang, Z.**, Zhao, Z., and Duan, G. (2018). Microbial response to CaCO3 application in an acid soil in southern China. *Journal of*

Environmental Sciences. doi: https://doi.org/10.1016/j.jes.2018.12.007.

16. Wang, P., Xu, X., **Tang, Z.**, Zhang, W., Huang, X.-Y., and Zhao, F.-J. (2018). OsWRKY28 Regulates Phosphate and Arsenate Accumulation, Root System Architecture and Fertility in Rice. *Frontiers in plant science* 9**,** 1330-1330. doi: 10.3389/fpls.2018.01330.

17. Chen, Y., Sun, S.-K., **Tang, Z.**, Liu, G., Moore, K.L., Maathuis, F.J.M., et al. (2017). The Nodulin 26-like intrinsic membrane protein OsNIP3;2 is involved in arsenite uptake by lateral roots in rice. *Journal of Experimental Botany* 68(11)**,** 3007-3016. doi: 10.1093/jxb/erx165.

18. Xu, J., Shi, S., Wang, L., **Tang, Z.**, Lv, T., Zhu, X., et al. (2017). OsHAC4 is critical for arsenate tolerance and regulates arsenic accumulation in rice. *New Phytologist***,** 10.1111/nph.14572. doi: 10.1111/nph.14572.

19. Duan, G., Shao, G., Tang, Z., Chen, H., Wang, B., **Tang, Z.**, et al. (2017). Genotypic and Environmental Variations in Grain Cadmium and Arsenic Concentrations Among a Panel of High Yielding Rice Cultivars. *Rice* 10(1)**,** 9. doi: 10.1186/s12284-017-0149-2.

20. Fan, X., **Tang, Z.**, Tan, Y., Zhang, Y., Luo, B., Yang, M., et al. (2016). Overexpression of a pH-sensitive nitrate transporter in rice increases crop yields. *Proceedings of the National Academy of Sciences of the United States of America* 113(26)**,** 7118-7123. doi: 10.1073/pnas.1525184113.

21. Li, C., **Tang, Z.**, Wei, J., Qu, H., Xie, Y., and Xu, G. (2016). The OsAMT1.1 gene functions in ammonium uptake and ammonium–potassium homeostasis over low and high ammonium concentration ranges. *Journal of Genetics and Genomics* 43(11)**,** 639-649. doi: https://doi.org/10.1016/j.jgg.2016.11.001.

22. Shi, S., Wang, T., Chen, Z., **Tang, Z.**, Wu, Z., Salt, D.E., et al. (2016). OsHAC1;1 and OsHAC1;2 Function as Arsenate Reductases and Regulate Arsenic Accumulation. *Plant Physiology* 172(3)**,** 1708-1719. doi: 10.1104/pp.16.01332.

23. Yan, J., Wang, P., Wang, P., Yang, M., Lian, X., **Tang, Z.**, et al. (2016). A loss-of-function allele of OsHMA3 associated with high cadmium accumulation in

shoots and grain of Japonica rice cultivars. *Plant Cell and Environment* 39(9)**,** 1941-1954. doi: 10.1111/pce.12747.

24. Zhao, F.-J., Ma, Y., Zhu, Y.-G., **Tang, Z.**, and McGrath, S.P. (2015). Soil Contamination in China: Current Status and Mitigation Strategies. *Environmental Science & Technology* 49(2)**,** 750-759. doi: 10.1021/es5047099.

25. Li, Q., **Tang, Z.**, Hu, Y., Yu, L., Liu, Z., and Xu, G. (2014). Functional analyses of a putative plasma membrane Na+/H+ antiporter gene isolated from salt tolerant Helianthus tuberosus. *Molecular Biology Reports* 41(8)**,** 5097-5108. doi: 10.1007/s11033-014-3375-3.

26. Ma, R., Shen, J., Wu, J., **Tang, Z.**, Shen, Q., and Zhao, F.-J. (2014). Impact of agronomic practices on arsenic accumulation and speciation in rice grain. *Environmental Pollution* 194**,** 217-223. doi: 10.1016/j.envpol.2014.08.004.