

孙淑斌 2016-3-14 更新网站

## 一、个人简介

孙淑斌，山东莱州人。植物营养分子生物学博士，南京农业大学资环院教授，硕/博士生导师。南京农业大学“133”人才工程优



秀骨干教师。发表重要科研学术论文几十余篇，2012. 4-12 美国肯塔基大学高访。主要从分子、生理、遗传等几个角度研究探讨植物高效吸收利用磷素的机理。具体为（1）植物从土壤中吸收磷素并在体内转运再分配的生理与分子机理；（2）剖析植物在磷饥饿条件下的信号感受传导与调控机制。

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## 二、近几年主持在研项目

1. 主持转基因生物新品种培育重大专项，磷钾高效关键基因及其调控元件的功能及其育种价值鉴定（2014ZX0800931B）；2014年1月-2016年12月，173万元
2. 主持国家自然科学基金，水稻类泛素 E3 连接酶 OsSIZ 对磷素的响应及

- 调控 (31172014); 2012 年 1 月-2015 年 12 月, 62 万元
3. 主持转基因生物新品种培育科技重大专项任务子课题, 重要性状基因克隆及功能验证 ( 2011ZX08009-003-005 ; 2014ZX08009-003-005); 2011 年 7 月-2016 年 7 月, 98.8 万元
  4. 主持国家自然科学基金, 番茄菌根中糖转运蛋白 LeST3 的调控机制研究, 30971855 2010 年 1 月-2012 年 12 月, 结题, 30 万元
  5. 主持江苏省自然科学基金, 水稻根部响应外界缺磷信号的分子机理研究 (BK20141367); 2014 年 7 月-2017 年 6 月
  6. 主持转基因生物新品种培育科技重大专项任务一 “磷高效利用转基因玉米新种质创制” 中子任务 “磷转运蛋白基因转化玉米的研究” 2008ZX08003-005 起止时间: 2008 年 - 2011 年, 17 万元
  7. 主持教育部博士点基金, 名称: 水稻 Pht1 家族磷转运蛋白 OsPT1 的功能解析, 20090097110038 2010 年 1 月 - 2012 年 12 月

### 三、发表的代表性论文

30. Huadun Wang, Rui Sun, Yue Cao, Wenxia Pei, Yafei Sun, Hongmin Zhou, Xueneng Wu, Fang Zhang, Le Luo, Qirong Shen, Guohua Xu, **Shubin Sun\***. (2015)OsSIZ1, a SUMOE3 ligase gene, is involved in the regulation of the responses to phosphate and nitrogen in rice, *Plant and Cell Physiology*, 56(12):2381-95.
29. Fang Zhang, Ya-Fei Sun, Wen-Xia Pei, Ajay Jain, Rui Sun, Yue Cao, Xueneng Wu, Tingting Jiang, Liang Zhang, Xiaorong Fan, Aiqun Chen, Qirong Shen, Guohua Xu and **Shubin Sun\***.(2015) Involvement of OsPht1;4 in phosphate acquisition, and mobilization facilitates embryo development in rice. *The Plant Journal*, 82(4): 556-569. (\*Corresponding author) (IF>7)

28. Gu M, Chen AQ, **Sun SB**, Xu GH, Complex regulation of plant phosphate transporters and the gap between molecular mechanisms and practical application: what are missing? *Molecular Plant*, 2015, 9(3):396-416
27. Fang Zhang, Xue-Neng Wu, Hong-Min Zhou, Dan-Feng Wang, Ting-Ting Jiang, Ya-Fei Sun, Yue Cao, Wen-Xia Pei, **Shu-Bin Sun\***, Guo-Hua Xu (2014) Overexpression of rice phosphate transporter gene OsPT6 enhances phosphate uptake and accumulation in transgenic rice plants. *Plant and Soil*, 384: 259-270 (\*Corresponding author) (IF>3)
26. Yue Cao<sup>1</sup>, Yan Yan<sup>1</sup>, Fang Zhang, Hua-dun Wang, Mian Gu, Xue-neng Wu, **Shu-bin Sun\***, Guo-hua Xu. (2014) Fine characterization of OsPHO2 knockout mutants reveals its key role in Pi utilization in rice. *Journal of Plant Physiology*, 171 (2): 340-348(\*Corresponding author) (IF>3)
25. Liao D, Chen X, Chen A, Wang H, Liu J, Liu J, Gu M, **Sun S**, Xu G. (2014) The Characterization of Six Auxin-Induced Tomato GH3 Genes Uncovers a Member, SlGH3.4, Strongly Responsive to Arbuscular Mycorrhizal Symbiosis. *Plant Cell Physiol.* 56, 674-687.
24. Mian Gu, Wei Liu, Qi Meng, Wenqi Zhang, Aiqun Chen, **Shubin Sun**, Guohua Xu. (2014) Identification of microRNAs in six solanaceous plants and their potential link with phosphate and mycorrhizal signalings. *Journal of Integrative Plant Biology* 56 (12), 1164-1178.
23. Chen AQ, Chen X, Wang HM, Liao DH, Gu M, Qu HY, **Sun SB** and Xu GH. (2014) Genome-wide investigation and expression analysis suggest diverse roles and genetic redundancy of Pht1 family genes in response to Pi deficiency in tomato. *BMC Plant Biology* 14:2-15.
22. **Shubin Sun**, Mian Gu, Yue Cao, Xinpeng Huang, Xiao Zhang, Penghui Ai, Jianning Zhao, Xiaorong Fan, Guohua Xu\*. (2012). A constitutive expressed phosphate transporter, OsPht1;1, modulates phosphate uptake and translocation in Pi-replete rice. *Plant Physiology* 159(4):1571-81 (IF>7)
21. **Shubin Sun**, Jingjing Wang, Lingling Zhu, Dehua Liao, Mian Gu, Lixuan Ren, Yoram Kapulnik, Guohua Xu. (2012). An Active Factor from the Root Exudates

- of Tomato Plays an Important Role in Efficient Establishment of Mycorrhizal Symbiosis. Plos One 7(8):1-7. PLoS ONE 7(8): e43385 (IF>4)
20. Huadun Wang, Kousar Makeen, Yan Yan, Yue Cao, **Shubin Sun\***, Guohua Xu. (2011). OsSIZ1 Regulates the Vegetative Growth and Reproductive Development in Rice. Plant Mol Biol Rep 29:411-417. (\*Corresponding author) (IF>5)
  19. Penghui Ai †, **Shubin Sun†**, Jianning Zhao, Xiaorong Fan, Weijie Xin, Qiang Guo, Ling Yu, Qirong Shen, A.J. Miller, Guohua Xu.(2009). Two rice phosphate transporters, OsPht1;2 and OsPht1;6, exhibit different kinetic properties and functions in uptake and remobilization of phosphate. The Plant Journal 57: 798-809. († equal contribution first author) (IF>7)
  18. **Shubin Sun**, Guohua Xu. (2009). Sugar transport in arbuscular mycorrhizal symbiosis. CAN J PLANT SCI 89: 257-263. (IF>1)
  17. Lei Ge, **Shubin Sun\***, Aiqun Chen, Yoram Kapulni, Guohua Xu (2008). Tomato sugar transporter genes associated with mycorrhiza and phosphate. Plant Growth Regulation, 55(2): 115-123. (\*Corresponding author)(IF>1)
  16. Jinkui Luo, **Subin Sun\***, Lijun Jia, Wei Chen, Qirong Shen\*. (2006). The mechanism of nitrate accumulation in pakchoi [Brassica campestris L.ssp. Chinensis(L.)]. Plant Soil, 282: 291-300. (\*Corresponding author)(IF>3)
  15. Hongfang Jia, Hongyan Ren, Mian Gu, Jianning Zhao, **Shubin Sun**, Xiao Zhang, Jieyu Chen, Ping Wu, Guohua Xu\*. (2011). Phosphate transporter gene, OsPht1;8, is involved in phosphate homeostasis in rice. Plant Physiology 156: 1164-1175. (IF>6)
  14. Aiqun Chen, Mian Gu, **Shubin Sun**, Lingling Zhu, Shuai Hong, Guohua Xu\*. (2011). Identification of two conserved cis-acting elements, MYCS and P1BS, involved in the regulation of mycorrhiza-activated phosphate transporters in eudicot species. New Phytologist.189:1157-1169.(IF>6)
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- 8、周红敏，王化敦，孙瑞，裴文霞，吴学能，曹越，孙雅菲，徐国华，孙淑斌\* (2015) 水稻 SUMO 化 E 3 连接酶 SIZ 1 调控缺磷条件下根的发育和根构型形成. *中国水稻科学*，29 (1) : 35-44. (通讯作者)
- 7、张芳，艾昊，王丹凤，曹越，史书林，顾冕，孙淑斌\*，徐国华. (2014) 磷转运蛋白 OsPT6 在水稻武育粳品种中磷素吸收利用的作用. *中国水稻科学*，28 (1) : 1-8 (通讯作者)
- 6、史书林，王丹凤，颜彦，张芳，王化敦，顾冕，孙淑斌\*，徐国华. (2013) 水稻磷转运蛋白 OsPHT 2 ; 1 在提高磷素利用率方面的作用. *中国水稻科学*，27 (5) : 457-465 (通讯作者)
- 5、赵建琦 吴学能 曹越 印洁 孙淑斌\* 徐国华 (2013) 缺磷条件下蔗糖对水稻磷素吸收利用起重要作用. *中国水稻科学*，27 (1) : 65-70. (通讯作者)
- 4、郭强#，孙淑斌#，YU Ling，徐国华 (2008) . 水稻中的磷转运蛋白基因在异源表达系统中的功能分析. *中国水稻科学*，22 (3) : 227-233 (并列第一作者)
- 3、孙淑斌，罗金葵，徐国华，胡江，陈巍，沈其荣 (2006). 小白菜硝酸还原酶基因的克隆序列分析与初步鉴定. *植物营养与肥料学报*，12(4): 592-596.

- 2、孙淑斌, 李宝珍, 胡 江, 徐国华 (2006). 水稻低丰度表达基因 OsAMT1;3 实时荧光定量 PCR 方法的建立及其应用. 中国水稻科学, 20 (1) : 8-12.
- 1、孙淑斌, 徐文君, 衣艳君, 刘兆普 (2006). 地被菊的再生与转化系统的建立. 植物生理学通讯, 42 (6) : 1032-1036.