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教育及工作经历:

2016/01-至今, 南京农业大学, 资源与环境科学学院, 植物营养与肥料学系, 副教授;

2013/03-2015/12, 南京农业大学, 资源与环境科学学院, 植物营养与肥料学系, 讲师;

2007/09-2012/12, 南京农业大学, 资源与环境科学学院, 植物营养学系, 博士(硕博连读);

2004/09-2008/06, 南京农业大学, 国家生命科学与技术人才培养基地, 学士。

科研项目:

1、促生菌 SQR9 黄瓜根际趋化信号筛选及其受体蛋白鉴定 (31672232), 国家自然科学基金面上项目, 2017/01-2020/12, 60 万元, 主持。

2、作物高产高效的土壤微生物区系特征及其调控 (外源和土著有益微生物向根表趋化与作用机制, 2015CB150505), 国家重点基础研究发展计划 (973 计划), 2015/01-2019/12, 80 万元, 子课题研究骨干。

3、根际有益菌在作物根表形成生物膜的机理模型与调控研究 (31330069), 国家自然科学基金重点项目, 2014/01-2018/12, 312 万元, 参加。

4、*Paenibacillus polymyxa* SQR-21 中杀镰孢菌素合成基因簇启动子分析与转录调控研究 (31301845), 国家自然科学基金青年基金, 2014/01-2016/12, 23 万元, 主持, 已结题。

5、解淀粉芽孢杆菌 SQR9 的促生机制研究及其新型微生物肥料研制(KYZ201408), 中央高校基本科研业务费自主创新重点研究项目, 2014/01-2016/12, 35 万元, 主持, 已结题。

代表性论文:

(1) **Nan Zhang**[†], Dongqing Yang[†](equal contributor), Joshua R. Kendall, Rainer Borriss, Irina S. Druzhinina, Christian P. Kubicek, Qirong Shen, Ruifu Zhang* (2016) Comparative genomic analysis of *Bacillus amyloliquefaciens* and *Bacillus subtilis* reveals evolutionary traits for adaptation to plant-associated habitats, *Frontiers in Microbiology*, 7: 2039.

(2) **Nan Zhang**[†], Dongqing Yang[†](equal contributor), Dandan Wang, Youzhi Miao, Jiahui Shao, Xuan Zhou, Zhihui Xu, Qing Li, Haichao Feng, Shuqing Li, Qirong Shen*, Ruifu Zhang* (2015) Whole transcriptomic analysis of the plant-beneficial rhizobacterium *Bacillus amyloliquefaciens* SQR9 during enhanced biofilm formation regulated by maize root exudates. *BMC Genomics*, 16: 685.

(3) Yuan J[†], **Nan Zhang**[†](equal contributor), Qiwei Huang, Waseem Raza, Rong Li, Jorge M. Vivanco, Qirong Shen* (2015) Organic acids from root exudates of banana help root colonization of PGPR strain *Bacillus amyloliquefaciens* NJN-6. *Scientific Reports*, 5: 13438.

(3) **Nan Zhang**, Dandan Wang, Yunpeng Liu, Shuqing Li, Qirong Shen, Ruifu Zhang* (2014) Effects of different plant root exudates and their organic acid components on chemotaxis, biofilm formation and colonization by beneficial rhizosphere-associated bacterial strains. *Plant and Soil*, 374: 689-700.

(4) **Nan Zhang**, Xin He, Juan Zhang, Waseem Raza, Xingming Yang, Yunze Ruan, Qirong Shen, Qiwei Huang* (2014) Suppression of Fusarium wilt of banana with the application of a bio-organic fertilizer. *Pedosphere*, 24: 613-624.

(5) Zhenhua Huo[†], **Nan Zhang**[†](equal contributor), Zhihui Xu, Shuqing Li, Qiuxia Zhang, Meihua Qiu, Xiaoyu Yong, Qiwei Huang, Ruifu Zhang*, Qirong Shen (2012)

Optimization of the survival and spore formation of *Paenibacillus polymyxa* SQR-21 during bioorganic fertilizer storage. *Bioresource Technology*, 108: 190-195.

(7) **Nan Zhang**, Kai Wu, Xin He, Shuqing Li, Zhenhua Zhang, Biao Shen, Xingming Yang, Ruifu Zhang, Qiwei Huang*, Qirong Shen* (2011) A new bioorganic fertilizer can effectively control banana wilt by strong colonization of *Bacillus subtilis* N11. *Plant Soil* 344: 87-97.

(8) Lin Chen, Yunpeng Liu, Gengwei Wu, Kimani Veronican Njeri, Qirong Shen, **Nan Zhang*** (2016) Induced maize salt tolerance by rhizosphere inoculation of *Bacillus amyloliquefaciens* SQR9. *Physiologia Plantarum*, 158: 34-44.

(9) Shuqing Li, Dongqing Yang, Meihua Qiu, Jiahui Shao, Rong Guo, Biao Shen, Xihou Yin, Ruifu Zhang, **Nan Zhang***, Qirong Shen* (2014) Complete genome sequence of *Paenibacillus polymyxa* SQR-21, a plant growth-promoting rhizobacterium with antifungal activity and rhizosphere colonization ability. *Genome Announcements*, 2: e00281-14.