Xuezhu Zhu

Professor of Environmental Biology

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Education:

- Ph. D., Soil Science, Nanjing Agricultural University, June 2006
- M. S., Environmental Science, Nanjing University, July 2001
- B. S., Environmental Biology, Wuhan University, July 1991

Research interests and expertise:

My research interests are Soil Organic Contamination and Remediation. These include assessing the contamination of soils, bioremediation of persistent organic pollution in soil, protection of crops against the pollution of POPs. Currently, I focus on the application of the functional endophytic bacteria in protection of crops against the contamiantion. In our lab, the functional endophytic bacteria has been sucessfully inocultated in the target plants for reducing the contamination of POPs.

Current projects:

Being as Leader in charge of these projects:

- **Colonization Characteristics of PAH Degrading Bacteria in the Soil-plant Systems and Their Improvement in Phytoremediation for Contaminated Soils**, NSFC (National Science Found of China) Foundation Grants, (31270574)
- **Increase degrading PAHs genes in crops through colonization of plants by endophytic bacteria,** NSFC (National Science Found of China) Foundation Grants, (31670514)

Current teaching:

- Environmental Biology
- Environmental Science
- Environmental Toxicology

Selected publications:

- Min Zhang2), Xiucui Wang1), Jiayu Tao1), Shuang Li1), Shupeng Hao1), **Zhu XZ(朱雪竹)***, and Yajun Hong1). PAHs would alter cyanobacterial blooms by affecting the microcystin production and physiological characteristics of Microcystis aeruginosa, Ecotox. Environ. Safe. 2018, 157, 134–142
- **Zhu XZ(朱雪竹)**, Wang WQ, Crowley DE., Sun K, Hao SP, Waigi MG, Gao YZ. The endophytic bacterium *Serratia* sp. PW7 degrades pyrene in wheat. Environ Sci Pollut Res, 2017, 24: 6648–6656
- **Zhu XZ(朱雪竹)**, Wang WQ, Sun K, Lin XH, Li S, Waigi MG, Ling WT. Inoculating wheat (*Triticum aestivum* L.) with the endophytic bacterium Serratia sp. PW7 to reduce pyrene contamination. Int J Phytorem, 2017, 19: 718–724
- **Zhu XZ(朱雪竹)**, Jin L, Sun K, Li S, Ling WT, Li XL. Potential of Endophytic Bacterium *Paenibacillus* sp. PHE-3 Isolated from Plantago asiatica L. for Reduction of PAH Contamination in Plant Tissues. Int. J. Environ. Res. Public Health, 2016, 13, 633; doi:10.3390/ijerph13070633
- **Zhu XZ(朱雪竹)**, Ni Xue, Liu Juan, Gao Yanzheng, Application of endophytic bacteria to reduce persistent organic pollutant contamination in plants, Clean-Soil Air Water: 2014, 41: 306–310