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Research Interests

- The molecular mechanism of internal phosphate signaling and homeostasis
- How do the plants sense the external nutrition availability to modulate growth
- The crosstalk mechanisms of different nutrition in regulating plant growth

Publication

Two RING-Finger Ubiquitin E3 Ligases Regulate the Degradation of SPX4, An Internal Phosphate Sensor, for Phosphate Homeostasis and Signaling in Rice, *Molecular Plant*, 2019, DOI: 10.1016/j.molp.2019.04.003

An SPX-RLI1 Module Regulates Leaf Inclination in Response to Phosphate Availability in Rice, *Plant Cell*, 2018, DOI: 10.1105/tpc.17.00738

Phosphate starvation induced OsPHR4 mediates Pi-signaling and homeostasis in rice, *Plant Mol Biol*, 2017, DOI: 10.1007/s11103-016-0564-6

Genetic manipulation of a high-affinity PHR1 target cis-element to improve phosphorous uptake in *Oryza sativa* L, *Plant Mol Biol*, 2015, DOI: 10.1007/s11103-015-0289-y

Integrative Comparison of the Role of the PHOSPHATE RESPONSE1 Subfamily in Phosphate Signaling and Homeostasis in Rice, *Plant Physiol*, 2015, DOI: 10.1104/pp.15.00736



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Rice SPX1 and SPX2 inhibit phosphate starvation responses through interacting with PHR2 in a phosphate-dependent manner, Proc Natl Acad Sci USA, 2014, DOI: 10.1073/pnas.1404680111

ABNORMAL INFLORESCENCE MERISTEM1 Functions in Salicylic Acid Biosynthesis to Maintain Proper Reactive Oxygen Species Levels for Root Meristem Activity in Rice, Plant Cell, 2017, DOI: 10.1105/tpc.16.00665

LARGE ROOT ANGLE1, encoding OsPIN2, is involved in root system architecture in rice, J Exp Bot. 2018, DOI: 10.1093/jxb/erx427

Identification of vacuolar phosphate efflux transporters in land plants, Nat Plants, 2019, DOI: 10.1038/s41477-018-0334-3

Vacuolar phosphate transporters account for variation in phosphate accumulation in Astragalus sinicus cultivars, The Crop Journal, 2020, DOI: 10.1016/j.cj.2020.05.005