

**The Rice Phytochrome Genes, *PHYA* and *PHYB*, Have Synergistic Effects on  
Anther Development and Pollen Viability**

Wei Sun<sup>1,+</sup>, Xiao Hui Xu<sup>2,+</sup>, Xingbo Lu<sup>2</sup>, Lixia Xie<sup>1</sup>, Bo Bai<sup>1</sup>, Chongke Zheng<sup>1</sup>,  
Hongwei Sun<sup>2</sup>, Yanan He<sup>1</sup>, Xian-zhi Xie<sup>1,\*</sup>

<sup>1</sup>*Shandong Rice Research Institute, Shandong Academy of Agricultural Sciences,  
Ji'nan 250100, China*

<sup>2</sup>*Institute of Plant Protection, Shandong Academy of Agricultural Sciences, Shandong  
Key Laboratory of Plant Pathology, Ji'nan 250100, China*

\*Corresponding author (Tel +86 531 8317 8661; email xzhxie2010@163.com)

<sup>+</sup>These authors contributed equally to this work.

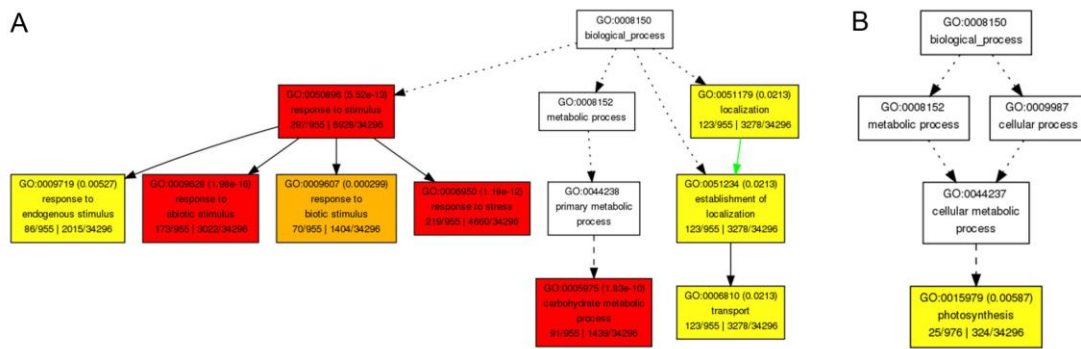


Figure S1. GO analysis of differentially expressed transcripts that specific to the *phyA phyB*WT dataset. (A) Up-regulated transcripts in the *phyA phyB* mutant. (B) Down-regulated transcripts in the *phyA phyB* mutant.



Figure S2. Distribution of G-box and PBE-box in the promoter regions of differentially expressed genes specific to the *phyA phyB*/WT dataset.