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ARABIDOPSIS *GULLIVER5* DEFINES A NEW LOCUS
INVOLVED IN THE BRASSINOSTEROID SIGNALING
PATHWAYS

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Arabidopsis brassinosteroid-insensitive1 encodes a leucine-rich repeat receptor kinase that is located in a plasma membrane and plays a role as a brassinosteroid receptor. Mutations in *BRI1* severely alter growth and development and result in typical BR dwarf phenotype, such as short stature, dark-green and round leaves, abnormal skotomorphogenesis, short petioles, and decreased apical dominance. In an effort to isolate a novel component in the BR signaling pathways, we EMS-mutagenized the *bri1-5* seeds and obtained mutants that show increased inflorescence length as a suppression phenotype. A semi-dominant suppressor of *bri1-5*, named *gulliver5*, exhibits ameliorated phenotypes including long petioles, more elongated and larger leaves, and increased seed setting. We are carrying out a map-based cloning technology to isolate the gene that is located in the middle of the chromosome 4 where no other BR signaling genes have been reported to date. Results obtained from various physiological, biochemical, genetic, and morphological analysis will be presented