



ABSTRACT

"Genome-wide association study of endoreduplication in Arabidopsis thaliana: the first harvest"

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The genome-wide association approach (GWAS) overcomes several limitations of traditional linkage mapping by (i) providing higher mapping resolution, often to the gene level, and (ii) using large samples of populations in which commonly occurring genetic variations can be associated with phenotypic variation. The availability of thousands of single-nucleotide polymorphisms (SNPs) allows whole-genome scans to identify haplotype blocks significantly associated with quantitative variation. We have applied this GWAS approach, in combination with linkage mapping, to identify novel genes involved in endoreduplication in *Arabidopsis thaliana*. Endoreduplication is the process where a cell replicates its genome without mitosis and cytokinesis. Here, in this presentation, I will discuss “the first harvest” of this GWAS study.