The Molecular Population Genetics of the *Arabidopsis CLAVATA2* Gene

The *Arabidopsis thaliana* CLAVATA (CLV) proteins are hypothesized to form a transmembrane receptor complex involved in developmental regulation of the shoot apical meristem. Signals that limit stem cell proliferation are generated when a receptor complex consisting of CLV1 (a LRR-receptor kinase) and CLV2 (a LRR-receptor-like protein) binds the ligand CLV3. Previous research in which a portion of CLV2 was sequenced from 21 accessions of *A. thaliana* indicated a portion of this locus displays an unusually high level of nucleotide diversity. To investigate whether this elevated diversity is present throughout CLV2, we sequenced the entire coding region from 27 geographically diverse accessions of *A. thaliana*. The expanded dataset confirms a high level of polymorphism at CLV2 with peaks of diversity corresponding to various functional domains within its protein sequence. The DNA sequences form four haplotype groups. These results indicate that CLV2 may harbor a balanced polymorphism.