**Experimental model**

Solanum xanti (Acala) a diploid species of hybrid origin (2n=24; 54)

**Phenotypic novelties**

- Changes in floral symmetry
- Homotypic transformation
- Directed petals, organ fusion, reduced and extra number of organ

**Hypothesis about the origin of phenotypic novelties**

- Stable mutations in genes that participate in flower development
- Genomic instabilities produced by interspecific hybridization
- Epigenetic changes
- Nuclear-cytoplasmic incompatibility (Cytoplasmic Male Sterility-CMS)

**Unlikely**

- Do not explain the presence of different flower phenotypes in the same plant (unless variable expression and incomplete penetrance are assumed)

**Likely**

- Phenotypic plasticity induced by epigenetic modifications capable of altering the temporal, spatial, and abundance patterns of gene expression