

Novel transcription factors and fruit development

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The last phase in flower development is fertilization of the ovules and formation of the fruits, which are both biologically and economically of importance. Interestingly, over 80% of our food comes from flowers and fruits. Gene regulation at the level of transcription is crucial for almost all biological processes in a cell or organism. Transcription factors (TFs) are sequence-specific DNA-binding proteins that are capable of activating and/or repressing transcription. Many mutants affected in development or metabolic processes have been associated with altered expression levels of TF genes. Therefore, the analysis of TF genes can be the basis for a better understanding of plant developmental processes.

The aim of our lab is to study TFs involved in fruit development in (mainly) the model species *Arabidopsis thaliana*, with a special focus on TFs that affect cell identity, shape, and TFs that cause parthenocarpy (fruits without seeds). Different approaches have been taken to identify novel TFs involved in fruit development. Various novel mutants have been identified and their corresponding TFs, belonging to different families, are now being studied. The latest results on these novel TFs involved in fruit development will be presented.