Flower Development in Arabidopsis

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Abstract

Like in other angiosperms, the development of flowers in Arabidopsis starts right after the floral transition, when the shoot apical meristem (SAM) stops producing leaves and makes flowers instead. On the flanks of the SAM emerge the flower meristems (FM) that will soon differentiate into the four main floral organs, sepals, petals, stamens, and pistil, stereotypically arranged in concentric whorls. Each phase of flower development—floral transition, floral bud initiation, and floral organ development—is under the control of specific gene networks. In this chapter, we describe these different phases and the gene regulatory networks involved, from the floral transition to the floral termination.

Key words

Flower development, Arabidopsis, Meristem, MADS-box