

**P006** The role of two *atCPSF73* genes in *Arabidopsis* development  
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Two homologues of the Cleavage and Polyadenylation Specificity Factor 73 kDa subunit were identified in the *Arabidopsis* genome (named *atCPSF73-I* and *-II*, respectively). The *atCPSF73-I* gene is generally expressed in all tissues tested, and has higher homology with its counterpart in yeast and bovine, both of which have been biochemically characterized. Thus, *atCPSF73-I* is likely a general polyadenylation factor. However, when its gene is slightly overexpressed with an extra copy of cDNA transgene, the transgenic plants showed severe male sterility, seemingly due to an obstruction in releasing viable pollen grains from anthers. The transgenic plants were otherwise normal. On the other hand, *atCPSF73-II* is a newly identified homologue in multicellular organisms. In *Arabidopsis*, *atCPSF73-II* is mainly expressed in floral tissues, and the disruption of its expression resulted in an abnormality in embryo development. The result of protein-protein interaction mapping suggests that these two proteins do not interact with each other. Rather, they interact with a similar set of proteins including the homologues of CPSF 30, 100, 160 kDa subunits and two poly(A) polymerases. The implication of these results will be discussed.