

Table S1: Known floral regulatory genes identified as differentially expressed in the experiment. Gene identifiers and gene names are listed. Literature describing the expression of the genes during flower development is referenced.

Gene Identifier	Name	Reference
<i>At4g18960</i>	<i>AGAMOUS</i>	[1,2]
<i>At4g24540</i>	<i>AGAMOUS-LIKE 24</i>	[3]
<i>At4g36920</i>	<i>APETALA2</i>	[4]
<i>At3g54340</i>	<i>APETALA3</i>	[5]
<i>At1g26310</i>	<i>CAULIFLOWER</i>	[6]
<i>At2g27250</i>	<i>CLAVATA3</i>	[7]
<i>At1g69180</i>	<i>CRABS CLAW</i>	[8,9]
<i>At3g15170</i>	<i>CUP-SHAPED COTELYDON1</i>	[10]
<i>At1g76420</i>	<i>CUP-SHAPED COTELYDON3</i>	[30]
<i>At1g12980</i>	<i>ENHANCER OF SHOOT REGENERATION/ DORNROESCHEN</i>	[11]
<i>At4g35900</i>	<i>FD</i>	[13,14]
<i>At2g45190</i>	<i>FILAMENTOUS FLOWER</i>	[15]
<i>At5g24860</i>	<i>FLOWERING PROMOTING FACTOR1</i>	[16]
<i>At1g68480</i>	<i>JAGGED</i>	[17,18]
<i>At5g14010</i>	<i>KNUCKLES</i>	[19]
<i>At5g61850</i>	<i>LEAFY</i>	[20]
<i>At4g27330</i>	<i>NOZZLE/SPOROCTELESS</i>	[21,22]
<i>At1g13400</i>	<i>NUBBIN</i>	[32]
<i>At1g68640</i>	<i>PERIANTHIA</i>	[23]
<i>At5g20240</i>	<i>PISTILLATA</i>	[24]
<i>At3g59380</i>	<i>PLURIPETALA</i>	[41]
<i>At2g28610</i>	<i>PRESSED FLOWER</i>	[25]
<i>At5g06070</i>	<i>RABBIT EARS</i>	[26]
<i>At1g24260</i>	<i>SEPALLATA3</i>	[27]
<i>At2g03710</i>	<i>SEPALLATA4</i>	[28]
<i>At2g42830</i>	<i>SHATTERPROOF2</i>	[29]
<i>At2g22540</i>	<i>SHORT VEGETATIVE PHASE</i>	[31]
<i>At5g35770</i>	<i>STERILE APETALA</i>	[12]
<i>At3g23130</i>	<i>SUPERMAN</i>	[33,34]
<i>At2g45660</i>	<i>SUPPRESSOR OF OVEREXPRESSION OF CO 1</i>	[35]
<i>At5g03840</i>	<i>TERMINAL FLOWER 1</i>	[36]
<i>At1g30950</i>	<i>UNUSUAL FLORAL ORGANS</i>	[37]
<i>At2g17950</i>	<i>WUSCHEL</i>	[38,39,40]
<i>At4g00180</i>	<i>YABBY3</i>	[15]

REFERENCES:

1. Ito T, Wellmer F, Yu H, Das P, Ito N, et al. (2004) The homeotic protein AGAMOUS controls microsporogenesis by regulation of SPOROCTELESS. *Nature* 430: 356-360.
2. Yanofsky MF, Ma H, Bowman JL, Drews GN, Feldmann KA, et al. (1990) The protein encoded by the Arabidopsis homeotic gene *agamous* resembles transcription factors. *Nature* 346: 35-39.
3. Yu H, Ito T, Wellmer F, Meyerowitz EM (2004) Repression of AGAMOUS-LIKE 24 is a crucial step in promoting flower development. *Nat Genet* 36: 157-161.
4. Jofuku KD, den Boer BG, Van Montagu M, Okamoto JK (1994) Control of Arabidopsis flower and seed development by the homeotic gene APETALA2. *Plant Cell* 6: 1211-1225.
5. Jack T, Brockman LL, Meyerowitz EM (1992) The homeotic gene APETALA3 of Arabidopsis thaliana encodes a MADS box and is expressed in petals and stamens. *Cell* 68: 683-697.
6. Kempin SA, Savidge B, Yanofsky MF (1995) Molecular basis of the cauliflower phenotype in Arabidopsis. *Science* 267: 522-525.
7. Fletcher JC, Brand U, Running MP, Simon R, Meyerowitz EM (1999) Signaling of cell fate decisions by CLAVATA3 in Arabidopsis shoot meristems. *Science* 283: 1911-1914.
8. Bowman JL, Smyth DR (1999) CRABS CLAW, a gene that regulates carpel and nectary development in Arabidopsis, encodes a novel protein with zinc finger and helix-loop-helix domains. *Development* 126: 2387-2396.
9. Schmid M, Uhlenhaut NH, Godard F, Demar M, Bressan R, et al. (2003) Dissection of floral induction pathways using global expression analysis. *Development* 130: 6001-6012.
10. Takada S, Hibara K, Ishida T, Tasaka M (2001) The CUP-SHAPED COTYLEDON1 gene of Arabidopsis regulates shoot apical meristem formation. *Development* 128: 1127-1135.
11. Kirch T, Simon R, Grunewald M, Werr W (2003) The DORNROSCHEN/ENHANCER OF SHOOT REGENERATION1 gene of Arabidopsis acts in the control of meristem cell fate and lateral organ development. *Plant Cell* 15: 694-705.
12. Byzova MV, Franken J, Aarts MG, de Almeida-Engler J, Engler G, et al. (1999) Arabidopsis STERILE APETALA, a multifunctional gene regulating inflorescence, flower, and ovule development. *Genes Dev* 13: 1002-1014.
13. Wigge PA, Kim MC, Jaeger KE, Busch W, Schmid M, et al. (2005) Integration of spatial and temporal information during floral induction in Arabidopsis. *Science* 309: 1056-1059.
14. Abe M, Kobayashi Y, Yamamoto S, Daimon Y, Yamaguchi A, et al. (2005) FD, a bZIP protein mediating signals from the floral pathway integrator FT at the shoot apex. *Science* 309: 1052-1056.

15. Siegfried KR, Eshed Y, Baum SF, Otsuga D, Drews GN, et al. (1999) Members of the YABBY gene family specify abaxial cell fate in Arabidopsis. *Development* 126: 4117-4128.
16. Kania T, Russenberger D, Peng S, Apel K, Melzer S (1997) FPF1 promotes flowering in Arabidopsis. *Plant Cell* 9: 1327-1338.
17. Dinneny JR, Yadegari R, Fischer RL, Yanofsky MF, Weigel D (2004) The role of JAGGED in shaping lateral organs. *Development* 131: 1101-1110.
18. Ohno CK, Reddy GV, Heisler MG, Meyerowitz EM (2004) The Arabidopsis JAGGED gene encodes a zinc finger protein that promotes leaf tissue development. *Development* 131: 1111-1122.
19. Payne T, Johnson SD, Koltunow AM (2004) KNUCKLES (KNU) encodes a C2H2 zinc-finger protein that regulates development of basal pattern elements of the Arabidopsis gynoecium. *Development* 131: 3737-3749.
20. Weigel D, Alvarez J, Smyth DR, Yanofsky MF, Meyerowitz EM (1992) LEAFY controls floral meristem identity in Arabidopsis. *Cell* 69: 843-859.
21. Schiefthaler U, Balasubramanian S, Sieber P, Chevalier D, Wisman E, et al. (1999) Molecular analysis of NOZZLE, a gene involved in pattern formation and early sporogenesis during sex organ development in Arabidopsis thaliana. *Proc Natl Acad Sci U S A* 96: 11664-11669.
22. Yang WC, Ye D, Xu J, Sundaresan V (1999) The SPOROCTELESS gene of Arabidopsis is required for initiation of sporogenesis and encodes a novel nuclear protein. *Genes Dev* 13: 2108-2117.
23. Chuang CF, Running MP, Williams RW, Meyerowitz EM (1999) The PERIANTHIA gene encodes a bZIP protein involved in the determination of floral organ number in Arabidopsis thaliana. *Genes Dev* 13: 334-344.
24. Goto K, Meyerowitz EM (1994) Function and regulation of the Arabidopsis floral homeotic gene PISTILLATA. *Genes Dev* 8: 1548-1560.
25. Matsumoto N, Okada K (2001) A homeobox gene, PRESSED FLOWER, regulates lateral axis-dependent development of Arabidopsis flowers. *Genes Dev* 15: 3355-3364.
26. Takeda S, Matsumoto N, Okada K (2004) RABBIT EARS, encoding a SUPERMAN-like zinc finger protein, regulates petal development in Arabidopsis thaliana. *Development* 131: 425-434.
27. Mandel MA, Yanofsky M (1998) The Arabidopsis AGL9 MADS-box gene is expressed in young flower promordia. *Sex Plant Reprod* 11: 22-28.
28. Ditta G, Pinyopich A, Robles P, Pelaz S, Yanofsky MF (2004) The SEP4 gene of Arabidopsis thaliana functions in floral organ and meristem identity. *Curr Biol* 14: 1935-1940.
29. Savidge B, Rounsley SD, Yanofsky MF (1995) Temporal relationship between the transcription of two Arabidopsis MADS box genes and the floral organ identity genes. *Plant Cell* 7: 721-733.
30. Vroemen CW, Mordhorst AP, Albrecht C, Kwaaitaal MA, de Vries SC (2003) The CUP-SHAPED COTYLEDON3 gene is required for boundary and shoot meristem formation in Arabidopsis. *Plant Cell* 15: 1563-1577.

31. Hartmann U, Hohmann S, Nettesheim K, Wisman E, Saedler H, et al. (2000) Molecular cloning of SVP: a negative regulator of the floral transition in Arabidopsis. *Plant J* 21: 351-360.
32. Dinneny JR, Weigel D, Yanofsky MF (2006) NUBBIN and JAGGED define stamen and carpel shape in Arabidopsis. *Development*.
33. Ito T, Sakai H, Meyerowitz EM (2003) Whorl-specific expression of the SUPERMAN gene of Arabidopsis is mediated by cis elements in the transcribed region. *Curr Biol* 13: 1524-1530.
34. Sakai H, Medrano LJ, Meyerowitz EM (1995) Role of SUPERMAN in maintaining Arabidopsis floral whorl boundaries. *Nature* 378: 199-203.
35. Borner R, Kampmann G, Chandler J, Gleissner R, Wisman E, et al. (2000) A MADS domain gene involved in the transition to flowering in Arabidopsis. *Plant J* 24: 591-599.
36. Bradley D, Ratcliffe O, Vincent C, Carpenter R, Coen E (1997) Inflorescence commitment and architecture in Arabidopsis. *Science* 275: 80-83.
37. Lee I, Wolfe DS, Nilsson O, Weigel D (1997) A LEAFY co-regulator encoded by UNUSUAL FLORAL ORGANS. *Curr Biol* 7: 95-104.
38. Alvarez J, Smyth DR (1999) CRABS CLAW and SPATULA, two Arabidopsis genes that control carpel development in parallel with AGAMOUS. *Development* 126: 2377-2386.
39. Gross-Hardt R, Lenhard M, Laux T (2002) WUSCHEL signaling functions in interregional communication during Arabidopsis ovule development. *Genes Dev* 16: 1129-1138.
40. Wellmer F, Riechmann JL, Alves-Ferreira M, Meyerowitz EM (2004) Genome-wide analysis of spatial gene expression in Arabidopsis flowers. *Plant Cell* 16: 1314-1326.
41. Running MP, Lavy M, Sternberg H, Galichet A, Gruissem W, et al. (2004) Enlarged meristems and delayed growth in *plp* mutants result from lack of CaaX prenyltransferases. *Proc Natl Acad Sci U S A* 101: 7815-7820.