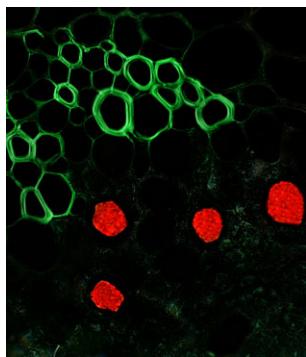
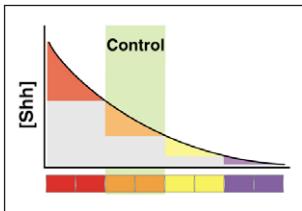


Development



Cover: Correct development of the vasculature in *Arabidopsis thaliana* requires the early expression of *ACAULIS5* (shown in red) only in the subset of xylem cells undergoing differentiation, to prevent their premature death. See research article by Muñiz et al. on p. 2573.



In this issue, Dessaud, McMahon and Briscoe review the role of Shh in neuronal subtype specification in the vertebrate neural tube and discuss how a complex, integrated network of molecular and genetic interactions receives and interprets the positional information supplied by graded Shh signalling. See review on p. 2489.

REVIEW

- 2489** Pattern formation in the vertebrate neural tube: a sonic hedgehog morphogen-regulated transcriptional network
Dessaud, E., McMahon, A. P. and Briscoe, J.

RESEARCH REPORT

- 2505** Developmental plasticity and regenerative capacity in the renal ureteric bud/collecting duct system
Sweeney, D., Lindström, N. and Davies, J. A.

RESEARCH ARTICLES

- 2511** Increased Cdx protein dose effects upon axial patterning in transgenic lines of mice
Gaunt, S. J., Drage, D. and Trubshaw, R. C.
- 2521** Sdf1/Cxcr4 signaling controls the dorsal migration of endodermal cells during zebrafish gastrulation
Mizoguchi, T., Verkade, H., Heath, J. K., Kuroiwa, A. and Kikuchi, Y.
- 2531** Hes genes and neurogenin regulate non-neural versus neural fate specification in the dorsal telencephalic midline
Imayoshi, I., Shimogori, T., Ohtsuka, T. and Kageyama, R.
- 2543** Dual hindlimb control elements in the *Tbx4* gene and region-specific control of bone size in vertebrate limbs
Menke, D. B., Guenther, C. and Kingsley, D. M.
- 2555** Mesp2 and Tbx6 cooperatively create periodic patterns coupled with the clock machinery during mouse somitogenesis
Oginuma, M., Niwa, Y., Chapman, D. L. and Saga, Y.
- 2563** Kruppel-like factor 5 is required for perinatal lung morphogenesis and function
Wan, H., Luo, F., Wert, S. E., Zhang, L., Xu, Y., Ikegami, M., Maeda, Y., Bell, S. M. and Whitsett, J. A.
- 2573** ACAULIS5 controls *Arabidopsis* xylem specification through the prevention of premature cell death
Muñiz, L., Minguet, E. G., Singh, S. K., Pesquet, E., Vera-Sirera, F., Moreau-Courtois, C. L., Carbonell, J., Blázquez, M. A. and Tuominen, H.
- 2583** Notch signalling is required for both dauer maintenance and recovery in *C. elegans*
Ouellet, J., Li, S. and Roy, R.
- 2593** Targeted disruption of β -catenin in Sf1-expressing cells impairs development and maintenance of the adrenal cortex
Kim, A. C., Reuter, A. L., Zubair, M., Else, T., Serecky, K., Bingham, N. C., Lavery, G. G., Parker, K. L. and Hammer, G. D.
- 2603** Embryonic requirements for ErbB signalling in neural crest development and adult pigment pattern formation
Budi, E. H., Patterson, L. B. and Parichy, D. M.
- 2615** Neuregulin-mediated ErbB3 signalling is required for formation of zebrafish dorsal root ganglion neurons
Honjo, Y., Kniss, J. and Eisen, J. S.
- 2627** Role for PADI6 and the cytoplasmic lattices in ribosomal storage in oocytes and translational control in the early mouse embryo
Yurttas, P., Vitale, A. M., Fitzhenry, R. J., Cohen-Gould, L., Wu, W., Gossen, J. A. and Coonrod, S. A.



Pigment pattern and metamorphic melanophores organised into stripes in wild-type zebrafish larva, from a study by Budi et al. that reports that ErbB signalling is required in embryogenesis for neural crest development and for adult pigment pattern formation. **See research article on p. 2603.**

DEVELOPMENT AND DISEASE

- 2637** Temporal requirements of the fragile X mental retardation protein in the regulation of synaptic structure
Gatto, C. L. and Broadie, K.
- 2649** The pro-domain of the zebrafish Nodal-related protein Cyclops regulates its signalling activities
Tian, J., Andrée, B., Jones, C. M. and Sampath, K.
- 2659** Gap junction communication between uterine stromal cells plays a critical role in pregnancy-associated neovascularization and embryo survival
Laws, M. J., Taylor, R. N., Sidell, N., DeMayo, F. J., Lydon, J. P., Gutstein, D. E., Bagchi, M. K. and Bagchi, I. C.
- 2669** Reactive oxygen species act remotely to cause synapse loss in a *Drosophila* model of developmental mitochondrial encephalopathy
Mast, J. D., Tomalty, K. M. H., Vogel, H. and Clandinin, T. R.
- 2681** Corrigendum