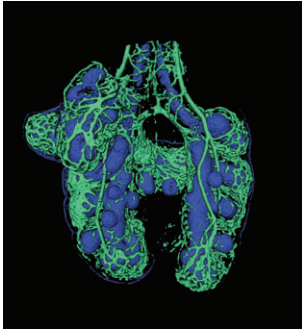
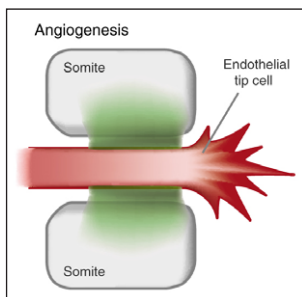


Development



Cover: An E12.5 mouse lung reconstructed from stacked confocal images showing airway epithelium (E-cadherin, blue) and the vascular network (CD31, green). Underdeveloped vasculature caused by transgenic induction of a VEGF decoy receptor results in abnormal branching of the airways, primarily inhibition of z-axis branching. **See Research article by Lazarus et al. on p. 2359.**



Netrins, which were first identified as guidance cues that regulate neural development, can influence the formation of multiple tissues. Here, Timothy Kennedy and colleagues review netrin signalling mechanisms and functions during the development of neural and non-neural tissues. **See Review on p. 2153.**

PRIMER

- 2143** Evolutionary crossroads in developmental biology: the tunicates
Lemaire, P.

REVIEW

- 2153** Netrins: versatile extracellular cues with diverse functions
Lai Wing Sun, K., Correia, J. P. and Kennedy, T. E.

DEVELOPMENT AND STEM CELLS

- 2171** Dual role for *Drosophila lethal of scute* in CNS midline precursor formation and dopaminergic neuron and motoneuron cell fate
Stagg, S. B., Guardiola, A. R. and Crews, S. T.
- 2185** Dronc caspase exerts a non-apoptotic function to restrain phospho-Numb-induced ectopic neuroblast formation in *Drosophila*
Ouyang, Y., Petritsch, C., Wen, H., Jan, L., Jan, Y. N. and Lu, B.
- 2197** Coordinated expression of cell death genes regulates neuroblast apoptosis
Tan, Y., Yamada-Mabuchi, M., Arya, R., St Pierre, S., Tang, W., Tosa, M., Brachmann, C. and White, K.
- 2207** Long-term live imaging provides new insight into stem cell regulation and germline-soma coordination in the *Drosophila* ovary
Morris, L. X. and Spradling, A. C.

RESEARCH REPORT

- 2217** The DEAD-box RNA helicase Vasa functions in embryonic mitotic progression in the sea urchin
Yajima, M. and Wessel, G. M.

RESEARCH ARTICLES

- 2223** Cyclin E and CDK-2 regulate proliferative cell fate and cell cycle progression in the *C. elegans* germline
Fox, P. M., Vought, V. E., Hanazawa, M., Lee, M.-H., Maine, E. M. and Schedl, T.
- 2235** p45NF-E2 represses Gcm1 in trophoblast cells to regulate syncytium formation, placental vascularization and embryonic growth
Kashif, M., Hellwig, A., Kollek, A., Shahzad, K., Wang, H., Lang, S., Wolter, J., Thati, M., Vinnikov, I., Bierhaus, A., Nawroth, P. P. and Isermann, B.
- 2249** Downregulation of *Dlx5* and *Dlx6* expression by Hand2 is essential for initiation of tongue morphogenesis
Barron, F., Woods, C., Kuhn, K., Bishop, J., Howard, M. J. and Clouthier, D. E.
- 2261** Mps1 at kinetochores is essential for female mouse meiosis I
Hached, K., Xie, S. Z., Buffin, E., Cladière, D., Rachez, C., Sacras, M., Sorger, P. K. and Wassmann, K.
- 2273** RSL genes are sufficient for rhizoid system development in early diverging land plants
Jang, G., Yi, K., Pires, N. D., Menand, B. and Dolan, L.
- 2283** DPP-mediated TGF β signaling regulates juvenile hormone biosynthesis by activating the expression of juvenile hormone acid methyltransferase
Huang, J., Tian, L., Peng, C., Abdou, M., Wen, D., Wang, Y., Li, S. and Wang, J.

- 2293 BMP signaling orchestrates photoreceptor specification in the zebrafish pineal gland in collaboration with Notch
Quillien, A., Blanco-Sanchez, B., Halluin, C., Moore, J. C., Lawson, N. D., Blader, P. and Cau, E.
- 2303 Non-cell-autonomous microRNA165 acts in a dose-dependent manner to regulate multiple differentiation status in the *Arabidopsis* root
Miyashima, S., Koi, S., Hashimoto, T. and Nakajima, K.
- 2315 Engrailed homeoprotein acts as a signaling molecule in the developing fly
Layalle, S., Volovitch, M., Mugat, B., Bonneaud, N., Parmentier, M.-L., Prochiantz, A., Joliot, A. and Maschat, F.
- 2325 The Spalt family transcription factor Sall3 regulates the development of cone photoreceptors and retinal horizontal interneurons
de Melo, J., Peng, G.-H., Chen, S. and Blackshaw, S.
- 2337 Actin-Capping Protein and the Hippo pathway regulate F-actin and tissue growth in *Drosophila*
Fernández, B. G., Gaspar, P., Brás-Pereira, C., Jezowska, B., Rebelo, S. R. and Janody, F.
- 2347 The actin nucleator WASp is required for myoblast fusion during adult *Drosophila* myogenesis
Mukherjee, P., Gildor, B., Shilo, B.-Z., VijayRaghavan, K. and Schejter, E. D.
- 2359 A perfusion-independent role of blood vessels in determining branching stereotypy of lung airways
Lazarus, A., Del-Moral, P. M., Ilovich, O., Mishani, E., Warburton, D. and Keshet, E.
- 2369 Peter Pan functions independently of its role in ribosome biogenesis during early eye and craniofacial cartilage development in *Xenopus laevis*
Bugner, V., Tecza, A., Gessert, S. and Kühl, M.
- 2379 *BRANCHLESS TRICHOMES* links cell shape and cell cycle control in *Arabidopsis* trichomes
Kasili, R., Huang, C.-C., Walker, J. D., Simmons, L. A., Zhou, J., Faulk, C., Hülkamp, M. and Larkin, J. C.
- 2389 Zebrafish cardiac development requires a conserved secondary heart field
Hami, D., Grimes, A. C., Tsai, H.-J. and Kirby, M. L.