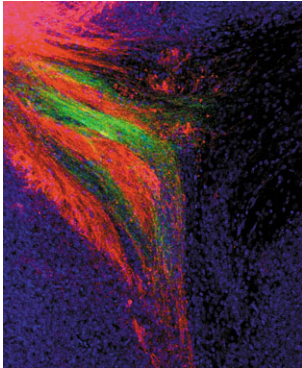
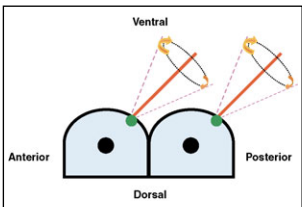


# Development



**Cover:** Tract tracing analysis in *Robo1* knockout mice. Axons from both the corpus callosum (red, Dil) and the hippocampal commissure/fornix (green, DiA) are shown. In *Robo1* knockout mice, the two commissures form large overlapping fascicles at the midline rather than remaining as separate axon tracts, as observed in wild-type animals. See article by Andrews et al. on p. 2243.



In this issue, Hidetaka Shiratori and Hiroshi Hamada review our current understanding of left-right patterning mechanisms during mouse development and discuss the many important questions about this process that remain unanswered, such as the functions of nodal flow and how an asymmetric signal is translated into morphology. See review article on p. 2095.

## MEETING REVIEW

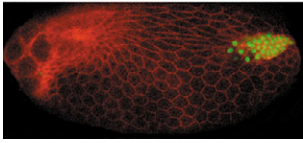
- 2089** Chromatin and epigenetics in development: blending cellular memory with cell fate plasticity  
Cavalli, G.

## REVIEW

- 2095** The left-right axis in the mouse: from origin to morphology  
Shiratori, H. and Hamada, H.

## RESEARCH ARTICLES

- 2105** dILA neurons in the dorsal spinal cord are the product of terminal and non-terminal asymmetric progenitor cell divisions, and require Mash1 for their development  
Wildner, H., Müller, T., Cho, S.-H., Bröhl, D., Cepko, C. L., Guillemot, F. and Birchmeier, C.
- 2115** Capicua regulates follicle cell fate in the *Drosophila* ovary through repression of *mirror*  
Atkey, M. R., Lachance, J.-F. B., Walczak, M., Rebello, T. and Nilson, L. A.
- 2125** *Drosophila* Plexin B is a Sema-2a receptor required for axon guidance  
Ayoob, J. C., Terman, J. R. and Kolodkin, A. L.
- 2137** Islet1 and Islet2 have equivalent abilities to promote motoneuron formation and to specify motoneuron subtype identity  
Hutchinson, S. A. and Eisen, J. S.
- 2149** Dkk2 plays an essential role in the corneal fate of the ocular surface epithelium  
Mukhopadhyay, M., Gorivodsky, M., Shtrom, S., Grinberg, A., Niehrs, C., Morasso, M. I. and Westphal, H.
- 2155** The GATA2 transcription factor negatively regulates the proliferation of neuronal progenitors  
El Wakil, A., Francius, C., Wolff, A., Pleau-Varet, J. and Nardelli, J.
- 2167** Multidirectional and multizonal tangential migration of GABAergic interneurons in the developing cerebral cortex  
Tanaka, D. H., Maekawa, K., Yanagawa, Y., Obata, K. and Murakami, F.
- 2177** BMP signaling restricts hemato-vascular development from lateral mesoderm during somitogenesis  
Gupta, S., Zhu, H., Zon, L. I. and Evans, T.
- 2189** Zebrafish endoderm formation is regulated by combinatorial Nodal, FGF and BMP signalling  
Poulain, M., Fürthauer, M., Thisse, B., Thisse, C. and Lepage, T.
- 2201** VEGF activates divergent intracellular signaling components to regulate retinal progenitor cell proliferation and neuronal differentiation  
Hashimoto, T., Zhang, X.-M., Chen, B. Y.-k. and Yang, X.-J.
- 2211** Activation of nicotinic receptors uncouples a developmental timer from the molting timer in *C. elegans*  
Ruaud, A.-F. and Bessereau, J.-L.
- 2223** Programmed cell death mechanisms of identifiable peptidergic neurons in *Drosophila melanogaster*  
Choi, Y.-J., Lee, G. and Park, J. H.



A stage 12 *Drosophila* egg chamber showing positively marked follicle cells expressing UAS-*mirror* (green) and *Broad-Complex* expression (in red). Atkey et al. report that *Capicua* regulates follicle cell fates along the dorsoventral axis by blocking the induction of appendage determinants, such as *mirror*, by anterior positional cues. **See research article on p. 2115.**

- 2233** A  $\beta$ 1,4-galactosyltransferase is required for Bmp2-dependent patterning of the dorsoventral axis during zebrafish embryogenesis  
Machingo, Q. J., Fritz, A. and Shur, B. D.
- 2243** Robo1 regulates the development of major axon tracts and interneuron migration in the forebrain  
Andrews, W., Liapi, A., Plachez, C., Camurri, L., Zhang, J., Mori, S., Murakami, F., Parnavelas, J. G., Sundaresan, V. and Richards, L. J.
- 2253** GABA induces terminal differentiation of *Dictyostelium* through a GABA<sub>B</sub> receptor  
Anjard, C. and Loomis, W. F.
- 2263** *Pbx1/Pbx2* requirement for distal limb patterning is mediated by the hierarchical control of Hox gene spatial distribution and *Shh* expression  
Capellini, T. D., Di Giacomo, G., Salsi, V., Brendolan, A., Ferretti, E., Srivastava, D., Zappavigna, V. and Selleri, L.
- 2275** Sustained Bmp signaling is essential for cloaca development in zebrafish  
Pyati, U. J., Cooper, M. S., Davidson, A. J., Nechiporuk, A. and Kimelman, D.
- 2285** Corrigendum