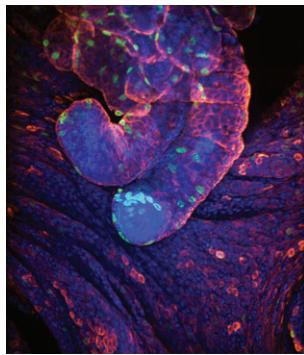


Development



Cover: Confocal image of a whole-mount preparation showing malformed hair follicles in the tail of an adult *Ift88* mutant mouse lacking cilia in the epidermis. K5 staining (red) shows the basal layer of the epidermis, BrdU labelling (green) represents the dividing cells, and nuclei are stained with Hoechst (blue). See Research article by Croyle et al. on p. 1675.

REVIEW

- 1653 Small RNAs in early mammalian development: from gametes to gastrulation
Suh, N. and Blelloch, R.

DEVELOPMENT AND STEM CELLS

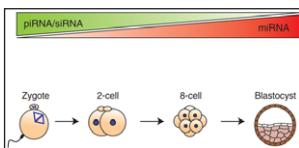
- 1663 Extensive scar formation and regression during heart regeneration after cryoinjury in zebrafish
González-Rosa, J. M., Martín, V., Peralta, M., Torres, M. and Mercader, N.
- 1675 Role of epidermal primary cilia in the homeostasis of skin and hair follicles
Croyle, M. J., Lehman, J. M., O'Connor, A. K., Wong, S. Y., Malarkey, E. B., Iribarne, D., Dowdle, W. E., Schoeb, T. R., Verney, Z. M., Athar, M., Michaud, E. J., Reiter, J. F. and Yoder, B. K.
- 1687 *lives and bowl* affect the specification of cyst stem cells and niche cells in the *Drosophila* testis
DiNardo, S., Okegbe, T., Wingert, L., Freilich, S. and Terry, N.

RESEARCH REPORT

- 1697 *Drosophila* PI4KIIIalpha is required in follicle cells for oocyte polarization and Hippo signaling
Yan, Y., Denef, N., Tang, C. and Schüpbach, T.

RESEARCH ARTICLES

- 1705 Assembly and patterning of the vascular network of the vertebrate hindbrain
Fujita, M., Cha, Y. R., Pham, V. N., Sakurai, A., Roman, B. L., Gutkind, J. S. and Weinstein, B. M.
- 1717 Arterial-venous network formation during brain vascularization involves hemodynamic regulation of chemokine signaling
Bussmann, J., Wolfe, S. A. and Siekmann, A. F.
- 1727 The pipsqueak-domain proteins Distal antenna and Distal antenna-related restrict Hunchback neuroblast expression and early-born neuronal identity
Kohwi, M., Hiebert, L. S. and Doe, C. Q.
- 1737 The microRNA pathway regulates the temporal pattern of Notch signaling in *Drosophila* follicle cells
Poulton, J. S., Huang, Y.-C., Smith, L., Sun, J., Leake, N., Schleede, J., Stevens, L. M. and Deng, W.-M.
- 1747 NFATC1 promotes epicardium-derived cell invasion into myocardium
Combs, M. D., Braitsch, C. M., Lange, A. W., James, J. F. and Yutzey, K. E.
- 1759 The *Drosophila* STUBL protein Degringolade limits HES functions during embryogenesis
Barry, K. C., Abed, M., Kenyagin, D., Werwie, T. R., Boico, O., Orian, A. and Parkhurst, S. M.
- 1771 Coordinated regulation of differentiation and proliferation of embryonic cardiomyocytes by a jumonji (Jarid2)-cyclin D1 pathway
Nakajima, K., Inagawa, M., Uchida, C., Okada, K., Tane, S., Kojima, M., Kubota, M., Noda, M., Ogawa, S., Shirato, H., Sato, M., Suzuki-Migishima, R., Hino, T., Satoh, Y., Kitagawa, M. and Takeuchi, T.
- 1783 Fine-tuning of Hh signaling by the RNA-binding protein Quaking to control muscle development
Lobbardi, R., Lambert, G., Zhao, J., Geisler, R., Kim, H. R. and Rosa, F. M.



Small non-coding RNAs, such as microRNAs, endo-siRNAs and piRNAs, are expressed throughout mammalian development and, here, Nayoung Suh and Robert Blelloch review emerging roles for these RNAs in the early stages of mammalian development, from gamete maturation through to gastrulation. See Review on p. 1653.

- 1795** IGF signaling directs ventricular cardiomyocyte proliferation during embryonic heart development
Li, P., Cavallero, S., Gu, Y., Chen, T. H. P., Hughes, J., Hassan, A. B., Brüning, J. C., Pashmforoush, M. and Sucov, H. M.
- 1807** Interactions between Shh, Sostdc1 and Wnt signaling and a new feedback loop for spatial patterning of the teeth
Cho, S.-W., Kwak, S., Woolley, T. E., Lee, M.-J., Kim, E.-J., Baker, R. E., Kim, H.-J., Shin, J.-S., Tickle, C., Maini, P. K. and Jung, H.-S.
- 1817** Regulation of endoderm formation and left-right asymmetry by miR-92 during early zebrafish development
Li, N., Wei, C., Olena, A. F. and Patton, J. G.
- 1827** p53 coordinates cranial neural crest cell growth and epithelial-mesenchymal transition/delamination processes
Rinon, A., Molchadsky, A., Nathan, E., Yovel, G., Rotter, V., Sarig, R. and Tzahor, E.
- 1839** How Notch establishes longitudinal axon connections between successive segments of the *Drosophila* CNS
Kuzina, I., Song, J. K. and Giniger, E.
- 1851** The *Arabidopsis* repressor of light signaling SPA1 acts in the phloem to regulate seedling de-etiolation, leaf expansion and flowering time
Ranjan, A., Fiene, G., Fackendahl, P. and Hoecker, U.
- 1863** PAPI, a novel TUDOR-domain protein, complexes with AGO3, ME31B and TRAL in the nuage to silence transposition
Liu, L., Qi, H., Wang, J. and Lin, H.
- 1875** Corrigendum