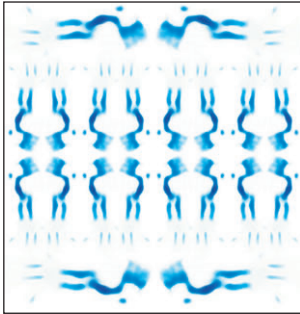
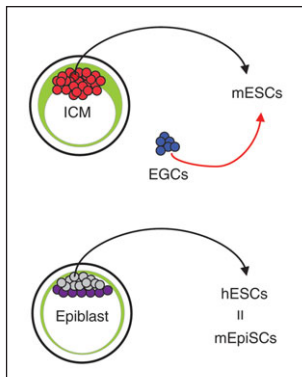


Development



Cover: E13.5 *Pbx1*^{-/-}; *Pbx2*^{+/-} Alcian blue-stained mouse scapula (and limb) placed in varying orientations. Each scapula exhibits several defects, including a truncated blade, a duplicated head and a fused scapulohumeral joint. These defects illustrate the paramount roles of Pbx in multiple scapula-forming domains during development. See **Research article** by Capellini et al. on p. 2559.



In this Issue, Kevin Eggan and colleagues review the advances reported at a recent stem cell Keystone meeting earlier this year, and highlight questions that emerged concerning how a stem cell 'decides' to self-renew or differentiate, and what their distinct properties are. See **Meeting review** on p. 2455.

SPOTLIGHT

- 2453** An interview with Thomas Lecuit
Senior, K.

MEETING REVIEW

- 2455** Shushing down the epigenetic landscape towards stem cell differentiation
Ichida, J. K., Kiskinis, E. and Eggan, K.

DEVELOPMENT AND STEM CELLS

- 2461** TSC1/2 tumour suppressor complex maintains *Drosophila* germline stem cells by preventing differentiation
Sun, P., Quan, Z., Zhang, B., Wu, T. and Xi, R.
- 2471** Proliferative and transcriptional identity of distinct classes of neural precursors in the mammalian olfactory epithelium
Tucker, E. S., Lehtinen, M. K., Maynard, T., Zirlinger, M., Dulac, C., Rawson, N., Pevny, L. and LaMantia, A.-S.
- 2483** Ring1B and Suv39h1 delineate distinct chromatin states at bivalent genes during early mouse lineage commitment
Alder, O., Laval, F., Helness, A., Brookes, E., Pinho, S., Chandrashekan, A., Arnaud, P., Pombo, A., O'Neill, L. and Azuara, V.

RESEARCH REPORTS

- 2493** *Kcnq1ot1* noncoding RNA mediates transcriptional gene silencing by interacting with Dnmt1
Mohammad, F., Mondal, T., Guseva, N., Pandey, G. K. and Kanduri, C.
- 2501** PAR-1 promotes primary neurogenesis and asymmetric cell divisions via control of spindle orientation
Tabler, J. M., Yamanaka, H. and Green, J. B. A.

RESEARCH ARTICLES

- 2507** *hand2* and *Dlx* genes specify dorsal, intermediate and ventral domains within zebrafish pharyngeal arches
Coffin Talbot, J., Johnson, S. L. and Kimmel, C. B.
- 2519** Opposite roles of *DMRT1* and its *W*-linked paralogue, *DM-W*, in sexual dimorphism of *Xenopus laevis*: implications of a ZZ/ZW-type sex-determining system
Yoshimoto, S., Ikeda, N., Izutsu, Y., Shiba, T., Takamatsu, N. and Ito, M.
- 2527** Mib-Jag1-Notch signalling regulates patterning and structural roles of the notochord by controlling cell-fate decisions
Yamamoto, M., Morita, R., Mizoguchi, T., Matsuo, H., Isoda, M., Ishitani, T., Chitnis, A. B., Matsumoto, K., Crump, J. G., Hozumi, K., Yonemura, S., Kawakami, K. and Itoh, M.
- 2539** Neuronal Nogo-A regulates neurite fasciculation, branching and extension in the developing nervous system
Petrinovic, M. M., Duncan, C. S., Bourikas, D., Weinman, O., Montani, L., Schroeter, A., Maerki, D., Sommer, L., Stoeckli, E. T. and Schwab, M. E.
- 2551** Oriented cell motility and division underlie early limb bud morphogenesis
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- 2559 Scapula development is governed by genetic interactions of *Pbx1* with its family members and with *Emx2* via their cooperative control of *Alx1*
Capellini, T. D., Vaccari, G., Ferretti, E., Fantini, S., He, M., Pellegrini, M., Quintana, L., Di Giacomo, G., Sharpe, J., Selleri, L. and Zappavigna, V.
- 2571 Negative control of Smad activity by ectoderm/Tif1 γ patterns the mammalian embryo
Morsut, L., Yan, K.-P., Enzo, E., Aragona, M., Soligo, S. M., Wendling, O., Mark, M., Khetchoumian, K., Bressan, G., Chambon, P., Dupont, S., Losson, R. and Piccolo, S.
- 2579 MEX-5 enrichment in the *C. elegans* early embryo mediated by differential diffusion
Daniels, B. R., Dobrowsky, T. M., Perkins, E. M., Sun, S. X. and Wirtz, D.
- 2587 A model of Costeff Syndrome reveals metabolic and protective functions of mitochondrial OPA3
Pei, W., Kratz, L. E., Bernardini, I., Sood, R., Yokogawa, T., Dorward, H., Ciccone, C., Kelley, R. I., Anikster, Y., Burgess, H. A., Huizing, M. and Feldman, B.
- 2597 *Spps*, a *Drosophila* Sp1/KLF family member, binds to PREs and is required for PRE activity late in development
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- 2603 Corrigendum
- 2604 Erratum