



Cover: Mouse E16.5 dorsal tongue filiform papillary epithelia are highly patterned as rosettes, ordered between regions of intercalating lamina propria. Epithelium is demarcated by membranously expressed E-cadherin (Rhodamine Red-X); nuclei are stained with DAPI (blue). The mitotic spindle orientation factor LGN has multiple distinct functions in regulating oral epithelial development by controlling cell division orientation. See Research article by Byrd et al. on p. 2803.

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- 2691 Size regulation blossoms in Kobe
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- 2696 Direct lineage reprogramming via pioneer factors; a detour through developmental gene regulatory networks
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- 2706 Blood vessel formation and function in bone
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- 2716 Functional analysis of AEBP2, a PRC2 Polycomb protein, reveals a Trithorax phenotype in embryonic development and in ESCs
Grijzenhout, A., Godwin, J., Koseki, H., Gdula, M. R., Szumska, D., McGouran, J. F., Bhattacharya, S., Kessler, B. M., Brockdorff, N. and Cooper, S.

- 2724 Neuregulin-1 signaling is essential for nerve-dependent axolotl limb regeneration
Farkas, J. E., Freitas, P. D., Bryant, D. M., Whited, J. L. and Monaghan, J. R.

- 2732 DISC1 regulates astrogenesis in the embryonic brain via modulation of RAS/MEK/ERK signaling through RASSF7
Wang, S., Liang, Q., Qiao, H., Li, H., Shen, T., Ji, F. and Jiao, J.

- 2741 Crucial roles of the Arp2/3 complex during mammalian corticogenesis
Wang, P.-S., Chou, F.-S., Ramachandran, S., Xia, S., Chen, H.-Y., Guo, F., Suraneni, P., Maher, B. J. and Li, R.

RESEARCH REPORTS

- 2753 IMP2 axonal localization, RNA interactome, and function in the development of axon trajectories
Preitner, N., Quan, J., Li, X., Nielsen, F. C. and Flanagan, J. G.

- 2760 The *Drosophila* neurogenin Tap functionally interacts with the Wnt-PCP pathway to regulate neuronal extension and guidance
Yuan, L., Hu, S., Okray, Z., Ren, X., De Geest, N., Claeys, A., Yan, J., Bellefroid, E., Hassan, B. A. and Quan, X.-J.

RESEARCH ARTICLES

- 2767 The methyltransferase *Setdb1* is essential for meiosis and mitosis in mouse oocytes and early embryos
Eymery, A., Liu, Z., Ozonov, E. A., Stadler, M. B. and Peters, A. H. F. M.

- 2780 Live and let die: a REM complex promotes fertilization through synergid cell death in *Arabidopsis*
Mendes, M. A., Guerra, R. F., Castelnovo, B., Silva-Velazquez, Y., Morandini, P., Manrique, S., Baumann, N., Groß-Hardt, R., Dickinson, H. and Colombo, L.

- 2791 *Drosophila* Condensin II subunit Chromosome-associated protein D3 regulates cell fate determination through non-cell-autonomous signaling
Klebanow, L. R., Peshel, E. C., Schuster, A. T., De, K., Sarvepalli, K., Lemieux, M. E., Lenoir, J. J., Moore, A. W., McDonald, J. A. and Longworth, M. S.

- 2803 LGN plays distinct roles in oral epithelial stratification, filiform papilla morphogenesis and hair follicle development
Byrd, K. M., Lough, K. J., Patel, J. H., Descovich, C. P., Curtis, T. A. and Williams, S. E.

- 2818 Delineation of proteolytic and non-proteolytic functions of the membrane-anchored serine protease prostaticin
Szabo, R., Lantsman, T., Peters, D. E. and Bugge, T. H.

- 2829 Sip1 regulates the generation of the inner nuclear layer retinal cell lineages in mammals
Menuchin-Lasowski, Y., Oren-Giladi, P., Xie, Q., Ezra-Elia, R., Ofri, R., Peled-Hajaj, S., Farhy, C., Higashi, Y., Van de Putte, T., Kondoh, H., Huylebroeck, D., Cvekl, A. and Ashery-Padan, R.

- 2842 Quadruple zebrafish mutant reveals different roles of Mesp genes in somite segmentation between mouse and zebrafish
Yabe, T., Hoshijima, K., Yamamoto, T. and Takada, S.

- 2853 Myocardin-related transcription factors are required for skeletal muscle development
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TECHNIQUES AND RESOURCES

- 2862 Single-molecule RNA detection at depth by hybridization chain reaction and tissue hydrogel embedding and clearing
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- 2868 Leapfrogging: primordial germ cell transplantation permits recovery of CRISPR/Cas9-induced mutations in essential genes
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