



Cover: Self-organization of a densely packed sphere of neural rosettes from gene-edited human embryonic stem cells that model Huntington's disease unveils a neuro-developmental origin for the disease. N-cadherin (green) highlights rosette lumen, nestin (pink) delineates cytoskeleton and all nuclei are blue. See **Research article** by Ruzo et al. (dev156844).

PRIMER

Protein binders and their applications in developmental biology

Harmansa, S. and Affolter, M.

dev148874

REVIEW

The hematopoietic stem cell niche: from embryo to adult

Gao, X., Xu, C., Asada, N. and Frenette, P. S.

dev139691

HUMAN DEVELOPMENT

Comparative analysis of mouse and human placentae across gestation reveals species-specific regulators of placental development

Soncin, F., Khater, M., To, C., Pizzo, D., Farah, O., Wakeland, A., Arul Nambi Rajan, K., Nelson, K. K., Chang, C.-W.,

Moretto-Zita, M., Natale, D. R., Laurent, L. C. and Parast, M. M.

dev156273

PLAC8, a new marker for human interstitial extravillous trophoblast cells, promotes their invasion and migration

Chang, W.-L., Liu, Y.-W., Dang, Y.-L., Jiang, X.-X., Xu, H., Huang, X., Wang, Y.-L., Wang, H., Zhu, C., Xue, L.-Q., Lin, H.-Y., Meng, W. and Wang, H.

dev148932

Chromosomal instability during neurogenesis in Huntington's disease

Ruzo, A., Croft, G. F., Metzger, J. J., Galgoczi, S., Gerber, L. J., Pellegrini, C., Wang, H., Jr, Fenner, M., Tse, S., Marks, A., Nchako, C. and Brivanlou, A. H.

dev156844

STEM CELLS AND REGENERATION

Tracing the destiny of mesenchymal stem cells from embryo to adult bone marrow and white adipose tissue via Pdgfra expression

Miwa, H. and Era, T.

dev155879

Two distinct mechanisms silence *chinmo* in *Drosophila* neuroblasts and neuroepithelial cells to limit their self-renewal

Dillard, C., Narbonne-Reveau, K., Foppolo, S., Lanet, E. and Maurice, C.

dev154534

RESEARCH REPORTS

Runx1 is sufficient for blood cell formation from non-hemogenic endothelial cells *in vivo* only during early embryogenesis

Yzaguirre, A. D., Howell, E. D., Li, Y., Liu, Z. and Speck, N. A.

dev158162

Commissural neurons transgress the CNS/PNS boundary in absence of ventricular zone-derived netrin 1

Moreno-Bravo, J. A., Puiggros, S. R., Blockus, H., Dominici, C., Zelina, P., Mehlen, P. and Chédotal, A.

dev159400

Distinct subsets of Eve-positive pericardial cells stabilise cardiac outflow and contribute to Hox gene-triggered heart morphogenesis in *Drosophila*

Zmojdzian, M., de Jossineau, S., Da Ponte, J. P. and Jagla, K.

dev158717

RESEARCH ARTICLES

Rap1 acts via multiple mechanisms to position Canoe and adherens junctions and mediate apical-basal polarity establishment

Bonello, T. T., Perez-Vale, K. Z., Sumigray, K. D. and Peifer, M.

dev157941

ELMO and Sponge specify subapical restriction of Canoe and formation of the subapical domain in early *Drosophila* embryos

Schmidt, A., Lv, Z. and Großhans, J.

dev157909

AP-2 α and AP-2 β cooperatively orchestrate homeobox gene expression during branchial arch patterning

Van Otterloo, E., Li, H., Jones, K. L. and Williams, T.

dev157438

Mms19 is a mitotic gene that permits Cdk7 to be fully active as a Cdk-activating kinase

Nag, R. N., Niggli, S., Sousa-Guimarães, S.,

Vazquez-Pianzola, P. and Suter, B.

dev156802

H2A.Z promotes the transcription of *MIR156A* and *MIR156C* in *Arabidopsis* by facilitating the deposition of H3K4me3

Xu, M., Leichty, A. R., Hu, T. and Poethig, R. S.

dev152868

A branching morphogenesis program governs embryonic growth of the thyroid gland

Liang, S., Johansson, E., Barila, G., Altschuler, D. L.,

Fagman, H. and Nilsson, M.

dev146829

Identification of jellyfish neuropeptides that act directly as oocyte maturation-inducing hormones

Takeda, N., Kon, Y., Quiroga Artigas, G., Lapébie, P.,

Barreau, C., Koizumi, O., Kishimoto, T., Tachibana, K.,

Houliston, E. and Deguchi, R.

dev156786

Nodal induces sequential restriction of germ cell factors during primordial germ cell specification

Fresques, T. M. and Wessel, G. M.

dev155663

Regulation of intercellular TARGET OF MONOPTEROS 7 protein transport in the *Arabidopsis* root

Lu, K.-J., De Rybel, B., van Mourik, H. and Weijers, D.

dev152892

Tyrosine phosphorylation and proteolytic cleavage of Notch are required for non-canonical Notch/Abl signaling in *Drosophila* axon guidance

Kannan, R., Cox, E., Wang, L., Kuzina, I., Gu, Q. and Giniger, E.

dev151548

Non-cell autonomous control of precerebellar neuron migration by Slit and Robo proteins

Dominici, C., Rappeneau, Q., Zelina, P., Fouquet, S. and Chédotal, A.

dev150375

Sox2 is required for olfactory pit formation and olfactory neurogenesis through BMP restriction and *Hes5* upregulation
Panaliappan, T. K., Wittmann, W., Jidigam, V. K., Mercurio, S., Bertolini, J. A., Sghari, S., Bose, R., Patthey, C., Nicolis, S. K. and Gunhaga, L.

dev153791

NFIA and GATA3 are crucial regulators of embryonic articular cartilage differentiation

Singh, P. N. P., Yadav, U. S., Azad, K., Goswami, P., Kinare, V. and Bandyopadhyay, A.

dev156554