Cover: Retina of a *Drosophila defective proventriculus* (*dve*) mutant showing derepression of colour-detecting Rhodopsin 3 (blue) and Rhodopsin 6 (red) in motion-detecting photoreceptors. Actin (green) marks all photoreceptor rhabdomeres. Two enhancers coordinate *dve* expression to generate the cell type-specific levels required for photoreceptor terminal differentiation. See Research article by Yan et al. on p. 844.

**MEETING REVIEW**

Creating to understand – developmental biology meets engineering in Paris

Kicheva, A. and Rivron, N. C.

**PRIMER**

Krüppel-like factors in mammalian stem cells and development

Bialkowska, A. B., Yang, V. W. and Mallipattu, S. K.

**REVIEW**

Plasticity in the lung: making and breaking cell identity

Tata, P. R. and Rajagopal, J.

**HUMAN DEVELOPMENT**

Severe pre-eclampsia is associated with alterations in cytotoxophoblasts of the smooth chorion

Garrido-Gomez, T., Ona, K., Kapidzic, M., Gormley, M., Simón, C., Genbacev, O. and Fisher, S. J.

**STEM CELLS AND REGENERATION**

TRBP maintains mammalian embryonic neural stem cell properties by acting as a novel transcriptional coactivator of the Notch signaling pathway

Byun, S.-H., Kim, J., Han, D., Kwon, M., Cho, J. Y., Ng, H. X., Pleasure, S. J. and Yoon, K.

Integrin suppresses neurogenesis and regulates brain tissue assembly in planarian regeneration

Bonar, N. A. and Petersen, C. P.

Integrins are required for tissue organization and restriction of neurogenesis in regenerating planarians


Apoptosis restores cellular density by eliminating a physiologically or genetically induced excess of enterocytes in the *Drosophila* midgut


Neuroblast niche position is controlled by Phosphoinositide 3-kinase-dependent DE-Cadherin adhesion

Doyle, S. E., Pahl, M. C., Siller, K. H., Ardiff, L. and Siegrist, S. E.

**RESEARCH REPORTS**

The assembly of developing motor neurons depends on an interplay between spontaneous activity, type II cadherins and gap junctions


**RESEARCH ARTICLES**

Regulatory logic driving stable levels of defective proventriculus expression during terminal photoreceptor specification in flies

Yan, J., Anderson, C., Viets, K., Tran, S., Goldberg, G., Small, S. and Johnston, R. J., Jr

JMJD-1.2/PHF8 controls axon guidance by regulating Hedgehog-like signaling

Riveiro, A. R., Mariani, L., Malmberg, E., Amendola, P. G., Peltonen, J., Wong, G. and Salcini, A. E.

The E3 ubiquitin ligase Nedd4/Nedd4L is directly regulated by microRNA 1


Genetic redundancy of GATA factors in the extraembryonic trophoblast lineage ensures the progression of preimplantation and postimplantation mammalian development


Blood vessel anastomosis is spatially regulated by Flt1 during angiogenesis

Nesmith, J. E., Chappell, J. C., Cluceru, J. G. and Bautch, V. L.

Eccentric position of the germinal vesicle and cortical flow during oocyte maturation specify the animal-vegetal axis of ascidian embryos

Tokuhisa, M., Muto, M. and Nishida, H.

Ataxin 2-binding protein 1 is a context-specific positive regulator of Notch signaling during neurogenesis in *Drosophila melanogaster*

Shukla, J. P., Deshpande, G. and Shashidhara, L. S.

A novel floor plate boundary defined by adjacent En1 and Dbx1 microdomains distinguishes midbrain dopamine and hypothalamic neurons

Nouri, N. and Awatramani, R.

**TECHNIQUES AND RESOURCES**

Efficient TALEN-mediated gene targeting of chicken primordial germ cells