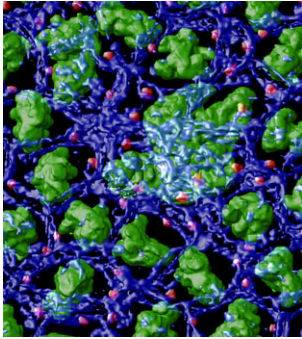


Development



Cover: Three-dimensional surface rendering from a mutant fly embryo lacking the tumor-suppressor APC2 and the DNA damage checkpoint: nuclei (green), centrosomes (red), actin (blue). APC2 loss disrupts chromosome segregation in some nuclei, and loss of the DNA damage checkpoint allows the defective nuclei to persist and fuse (large mass in center). **See Research article by Poulton et al. on p. 4226.**

MEETING REVIEWS

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- 4125 Getting the measure of things: the physical biology of stem cells
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PRIMER

- 4129 Sox proteins: regulators of cell fate specification and differentiation
Kamachi, Y. and Kondoh, H.

STEM CELLS AND REGENERATION

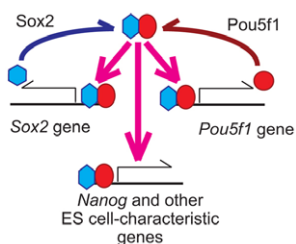
- 4145 Insulin and Target of rapamycin signaling orchestrate the development of ovarian niche-stem cell units in *Drosophila*
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- 4155 *midlife crisis* encodes a conserved zinc-finger protein required to maintain neuronal differentiation in *Drosophila*
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- 4165 Wnt/ β -catenin signaling directs the regional expansion of first and second heart field-derived ventricular cardiomyocytes
Buikema, J. W., Mady, A. S., Mittal, N. V., Atmanli, A., Caron, L., Doevendans, P. A., Sluijter, J. P. G. and Domian, I. J.

RESEARCH REPORT

- 4177 Coco regulates dorsoventral specification of germ layers via inhibition of TGF β signalling
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RESEARCH ARTICLES

- 4182 The trithorax group proteins Kismet and ASH1 promote H3K36 dimethylation to counteract Polycomb group repression in *Drosophila*
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- 4193 Eph/Ephrin signalling maintains eye field segregation from adjacent neural plate territories during forebrain morphogenesis
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- 4203 Nkx genes are essential for maintenance of ventricular identity
Targoff, K. L., Colombo, S., George, V., Schell, T., Kim, S.-H., Solnica-Krezel, L. and Yelon, D.
- 4214 Growth factor-mediated mesodermal cell guidance and skeletogenesis during sea urchin gastrulation
Adomako-Ankomah, A. and Etensohn, C. A.
- 4226 APC2 and Axin promote mitotic fidelity by facilitating centrosome separation and cytoskeletal regulation
Poulton, J. S., Mu, F. W., Roberts, D. M. and Peifer, M.
- 4237 EphA2 and Src regulate equatorial cell morphogenesis during lens development
Cheng, C., Ansari, M. M., Cooper, J. A. and Gong, X.
- 4246 Gprk2 adjusts Fog signaling to organize cell movements in *Drosophila* gastrulation
Fuse, N., Yu, F. and Hirose, S.



Yusuke Kamachi and Hisato Kondoh provide an overview of the developmental functions of the Sox family transcription factors and the molecular mechanisms by which they act. **See Primer on p. 4129.**

- 4256** Brinker possesses multiple mechanisms for repression because its primary co-repressor, Groucho, may be unavailable in some cell types
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- 4266** A dominant-negative provides new insights into FAK regulation and function in early embryonic morphogenesis
Petridou, N. I., Stylianou, P. and Skourides, P. A.
- 4277** *Myb* promotes centriole amplification and later steps of the multiciliogenesis program
Tan, F. E., Vldar, E. K., Ma, L., Fuentealba, L. C., Hoh, R., Espinoza, F. H., Axelrod, J. D., Alvarez-Buylla, A., Stearns, T., Kintner, C. and Krasnow, M. A.

TECHNIQUES AND RESOURCES

- 4287** Efficient site-specific transgenesis and enhancer activity tests in medaka using PhiC31 integrase
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- 4296** Corrigendum