



Cover: Genetic lineage tracing using BACCol10Cre induced YFP reporter gene expression in mice shows a dual origin of endochondral osteoblasts. A substantial fraction of endochondral osteoblasts in a newborn tibia are derived from hypertrophic chondrocytes (yellow cells), besides osteoblasts invading from the periosteum. Osteoblasts, osteoprogenitor cells and prehypertrophic chondrocytes are labeled with anti osterix (red). Green cells: YFP⁺ hypertrophic chondrocyte-derived, non-osteogenic cells in the spongiosa. This challenges the view that all hypertrophic chondrocytes are eliminated at the chondro-osseus junction by apoptosis. Photo credit: K. von der Mark. See the article by Park et al. (doi:10.1242/bio.201411031).

RESEARCH ARTICLES

- 585** Mutant human torsinA, responsible for early-onset dystonia, dominantly suppresses GTPCH expression, dopamine levels and locomotion in *Drosophila melanogaster*
Wakabayashi-Ito, N., Ajjuri, R. R., Henderson, B. W., Doherty, O. M., Breakefield, X. O., O'Donnell, J. M. and Ito, N.
- 596** Localized SCF and IGF-1 secretion enhances erythropoiesis in the spleen of murine embryos
Tan, K. S., Inoue, T., Kulkeaw, K., Tanaka, Y., Lai, M. I. and Sugiyama, D.
- 608** Dual pathways to endochondral osteoblasts: a novel chondrocyte-derived osteoprogenitor cell identified in hypertrophic cartilage
Park, J., Gebhardt, M., Golovchenko, S., Perez-Branguli, F., Hattori, T., Hartmann, C., Zhou, X., deCrombrughe, B., Stock, M., Schneider, H. and von der Mark, K.
- 622** Actin-dependent mitochondrial internalization in cardiomyocytes: evidence for rescue of mitochondrial function
Pacak, C. A., Preble, J. M., Kondo, H., Seibel, P., Levitsky, S., del Nido, P. J., Cowan, D. B. and McCully, J. D.
- 627** Dock10, a Cdc42 and Rac1 GEF, induces loss of elongation, filopodia, and ruffles in cervical cancer epithelial HeLa cells
Ruiz-Lafuente, N., Alcaraz-García, M.-J., García-Serna, A.-M., Sebastián-Ruiz, S., Moya-Quiles, M.-R., García-Alonso, A.-M. and Parrado, A.
- 636** Loss of a Clueless-dGRASP complex results in ER stress and blocks Integrin exit from the perinuclear endoplasmic reticulum in *Drosophila* larval muscle
Wang, Z.-H., Rabouille, C. and Geisbrecht, E. R.
- 649** Xrn1/Pacman affects apoptosis and regulates expression of *hid* and *reaper*
Waldron, J. A., Jones, C. I., Towler, B. P., Pashler, A. L., Grima, D. P., Hebbes, S., Crossman, S. H., Zabolotskaya, M. V. and Newbury, S. F.
- 661** Apolipoprotein CIII regulates lipoprotein-associated phospholipase A₂ expression via the MAPK and NFκB pathways
Han, X., Wang, T., Zhang, J., Liu, X., Li, Z., Wang, G., Song, Q., Pang, D., Ouyang, H. and Tang, X.
- 666** A chicken model of pharmacologically-induced Hirschsprung disease reveals an unexpected role of glucocorticoids in enteric aganglionosis
Gasc, J.-M., Clemessy, M., Corvol, P. and Kempf, H.
- 672** The *Drosophila* TIPE family member Sigmar interacts with the Ste20-like kinase Misshapen and modulates JNK signaling, cytoskeletal remodeling and autophagy
Chittaranjan, S., Xu, J., Kuzyk, M., Dullat, H. K., Wilton, J., DeVorkin, L., Lebovitz, C., Morin, G. B., Marra, M. A. and Gorski, S. M.