In this review, Corty, Matthews and Grueber discuss recent progress regarding our understanding of the molecules and mechanisms involved in shaping the diverse morphologies of dendrites, with a focus on the regulation of dendrite growth, branching, guidance and territory formation. See Review on p. 1049.

Cover: Variation in fibre number in the Drosophila jump muscle. Shown is the tergal depressor of the trochanter muscle, stained for β-integrin (red), F-actin (green) and nuclei (blue). Specification of fibre number in this muscle is directly regulated by the TGFβ signalling pathway. See Research article by Jaramillo et al. on p. 1105.

REVIEW

1049  Molecules and mechanisms of dendrite development in Drosophila
      Corty, M. M., Matthews, B. J. and Grueber, W. B.

RESEARCH REPORT

1063  Klf4 reverts developmentally programmed restriction of ground state pluripotency
      Guo, G., Yang, J., Nichols, J., Hall, J. S., Eyres, I., Mansfield, W. and Smith, A.

RESEARCH ARTICLES

1071  The Wnt antagonists Frzb-1 and Crescent locally regulate basement membrane dissolution in the developing primary mouth
      Dickinson, A. J. G. and Sive, H. L.

1083  Noncanonical frizzled signaling regulates cell polarity of growth plate chondrocytes
      Li, Y. and Dudley, A. T.

1093  BMP canonical Smad signaling through Smad1 and Smad5 is required for endochondral bone formation
      Retting, K. N., Song, B., Yoon, B. S. and Lyons, K. M.

1105  Crossveinless and the TGFβ pathway regulate fiber number in the Drosophila adult jump muscle
      Jaramillo, M. S., Lovato, C. V., Baca, E. M. and Cripps, R. M.

1115  Krüppel-like factor 2 cooperates with the ETS family protein ERG to activate Flk1 expression during vascular development
      Meadows, S. M., Salanga, M. C. and Krieg, P. A.

1127  Target recognition at the tips of postsynaptic filopodia: accumulation and function of Capricious
      Kohsaka, H. and Nose, A.

1137  The co-regulator dNAB interacts with Brinker to eliminate cells with reduced Dpp signaling
      Ziv, O., Suisa, Y., Neuman, H., Dinur, T., Geuking, P., Rhiner, C., Portela, M., Lolo, F., Moreno, E. and Gerlitz, O.

1147  Neurexin IV and Wrapper interactions mediate Drosophila midline glial migration and axonal ensheathment

1159  The immunoglobulin superfamily member Hbs functions redundantly with Sns in interactions between founder and fusion-competent myoblasts
      Shelton, C., Kocherlakota, K. S., Zhuang, S. and Abmayr, S. M.

1169  The role of Dpp and Wg in compensatory proliferation and in the formation of hyperplastic overgrowths caused by apoptotic cells in the Drosophila wing disc
      Pérez-Garijo, A., Shlevkov, E. and Morata, G.

1179  The sea urchin animal pole domain is a Six3-dependent neurogenic patterning center
      Wei, Z., Yaguchi, J., Yaguchi, S., Angerer, R. C. and Angerer, L. M.

1191  Colony stimulating factor 1 is an extrinsic stimulator of mouse spermatogonial stem cell self-renewal
1201  C. elegans CARMIL negatively regulates UNC-73/Trio function during neuronal development

1211  Lines is required for normal operation of Wingless, Hedgehog and Notch pathways during wing development
Benitez, E., Bray, S. J., Rodriguez, I. and Guerrero, I.

Safranin O staining of cartilage from E17.5 Smad1/5 cartilage-specific knockout mice, from a study that examines the roles and signalling mechanisms of individual BMP receptor Smad proteins in endochondral bone formation. See Research article on p. 1093.