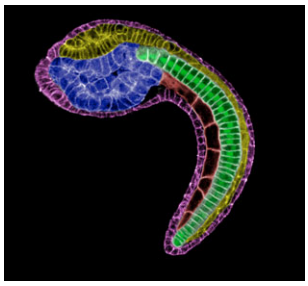
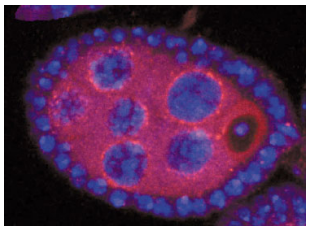
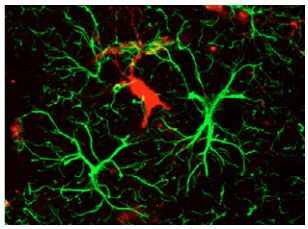
Development



**Cover:** Oblique lateral confocal section through a mid-tailbud stage ascidian (*Ciona savignyi*) embryo. The 40 notochord cells (green) were marked with a stable *brachyury:GFP* transgene. Cell peripheries were labelled with phalloidin and manually pseudocolored to show the endoderm (blue), muscle (red), neural tube (yellow) and epidermis (magenta). **See research article by Veeman et al. on p. 33.**



Recent studies in flies, fish and mice implicate a new class of small RNAs, piRNAs, in germline development and germline DNA integrity. However, as Carla Klattenhoff and William Theurkauf discuss, whether piRNAs primarily control chromatin organization, gene transcription, RNA stability or RNA translation is poorly understood, as is their biogenesis, raising many unanswered questions about these intriguing RNAs. **See review on p. 3.**



Cellular localisation of DsRed in coronal sections of P30 NG2DsRedBAC transgenic mouse cerebral cortex. DsRed fluorescence is not detected in astrocytes expressing GFAP. NG2DsRedBAC mice, which express DsRed specifically in NG2+ cells, reveal that NG2+ cells give rise to both protoplasmic astrocytes and oligodendrocytes. **See research article on p. 145.**



## DEVELOPMENT AND DISEASE