Drugs in neonates
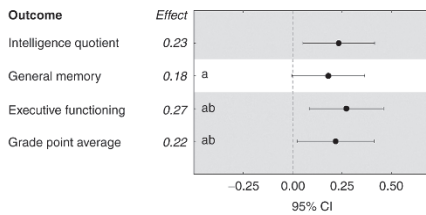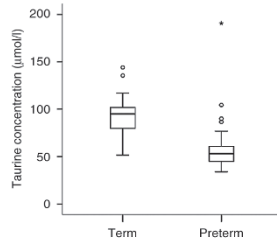

Ward *et al.* describe factors that should be taken into account when considering using medications in neonates. This white paper emphasizes the need to base neonatal drug discovery on the physiology and pharmacology of neonates, the use of data from previous studies, the central role of families in research, and the value of a team approach. **See page 692**

Faster growth of late-preterm infants leads to better outcomes
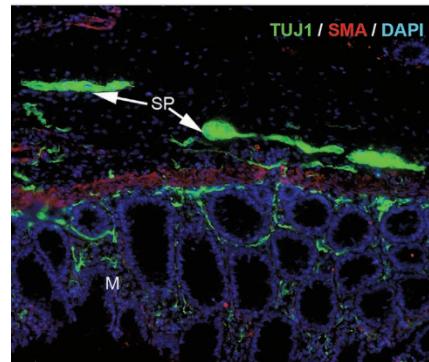

Sammallahti *et al.* found that faster growth (weight, head, or length) in late preterm infants predicted higher levels of neurocognition at 24–26 years of age. However, no consistent association with mental health outcomes was observed. **See page 767**

Plasma amino acids are different in former preterm infants

Plasma amino acids can indicate cardiovascular risk. Preterm infants exhibit plasma amino acid changes in the newborn period. Posod *et al.* determined that such changes were still evident in 5- to 7-year-old former preterm infants, resulting in a cardiovascular profile with both beneficial and detrimental characteristics. **See page 787**
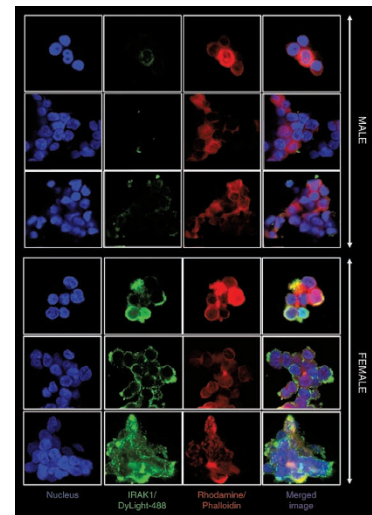
Postnatal enteric neuronal stem cells may populate aganglionic intestines

Using enteric neuronal stem cells from bowel resections, including those from children with Hirschsprung's disease, Cheng *et*

al. showed that they migrated and differentiated into neural crest–derived cells in chick hindgut and mouse aganglionic colon. These stem cells may be the basis of future therapy for neurointestinal disease. **See page 831**

Differences in TLR4 signaling gene expression between males and females

Male neonates are less hardy than females. O'Driscoll *et al.* may have found an explanation. The leukocytes in human female cord blood have higher expression of the Toll-like receptor 4 (TLR4) signaling protein interleukin-1 receptor–associated kinase than those in baby boys, potentially giving girls an immune advantage. **See page 838**