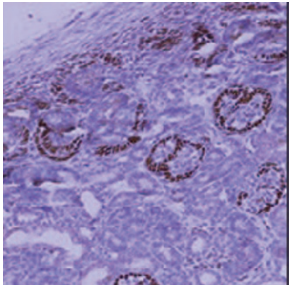


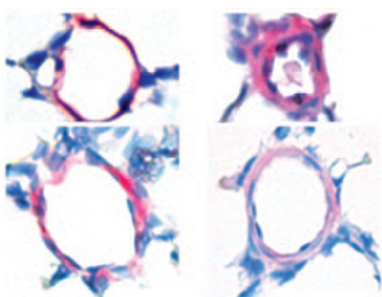
doi:10.1038/pr.2013.184

Renal growth after nephrectomy



Clinical and experimental studies show that unilateral and subtotal nephrectomy in adults results in compensatory renal growth without formation of new nephrons. The response to renal mass reduction during nephrogenesis, however, has not been fully investigated. Sammut and coinvestigators subjected ovine fetuses to unilateral nephrectomy and subtotal nephrectomy during nephrogenesis. Compensatory renal growth was observed after parenchymal reduction in both models, but patterns of growth were strikingly different. [See page 624](#)

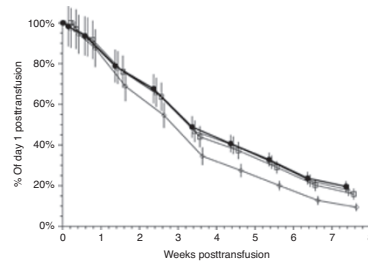
Stem cell factor and lung repair



Stem cell factor (SCF) and its receptor are modulators of angiogenesis. Neonatal hyperoxia-induced lung injury (HILI) is characterized by disordered angiogenesis. Miranda and coinvestigators sought to determine whether exogenous SCF improves recovery from neonatal HILI by improving angiogenesis. Their findings might suggest a new strategy

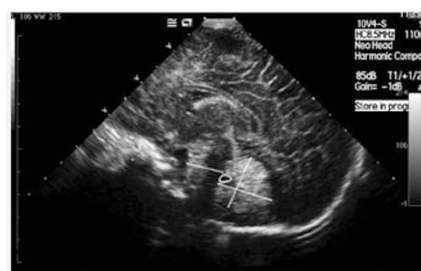
to treat lung diseases characterized by dysangiogenesis. [See page 682](#)

Biotin red blood cells



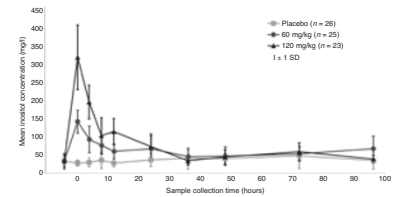
Anemia, a common condition among critically ill premature infants, is affected by red blood cell (RBC) survival (RCS). Widness and colleagues hypothesized that transfused allogeneic Kidd antigen–mismatched RBCs would demonstrate the same concurrent RCS tracking as RBCs multilabeled at separate, discrete low densities with biotin (BioRBCs). Allogeneic RBCs from adult donors were labeled at four biotin densities, mixed, and transfused into anemic premature infants. It was found that the RCS of different populations of RBCs could be tracked concurrently and reliably using the three lowest BioRBC densities. [See page 689](#)

Brain growth



Reduced supratentorial brain growth has been shown in preterms by term-equivalent age (TEA), but cerebellar growth may be preserved in the absence of supratentorial injury. Graça and colleagues compared cerebellar size at TEA between preterm infants and term-born controls. Their results suggest that there is relative sparing of cerebellar hemisphere growth up to TEA in very preterm infants without major brain lesions. [See page 698](#)

Myo-inositol in preterm infants



Myo-inositol given to preterm infants with respiratory distress has reduced death, increased survival without bronchopulmonary dysplasia, and reduced severe retinopathy of prematurity in previous randomized trials. Pharmacokinetic and safety studies in extremely preterm infants are needed prior to efficacy trials. Phelps *et al.* randomized infants of 23–29 weeks gestation to either a single intravenous dose of inositol at 60 or 120 mg/kg or placebo, and recorded the safety outcomes. No significant differences in adverse events occurred between the three groups. [See page 721](#)

Take your vitamins!



Dietary supplements are used by one-third of children in the United States. Bailey *et al.* examined motivations for supplement use in children, the types of products used, and the role of health-care practitioners in guiding choices about supplements. The results show that the use of most supplements by children is not under the recommendation of a health-care provider. The most common reason cited was for health promotion, although little scientific data support this notion in nutrient-replete children. [See page 737](#)