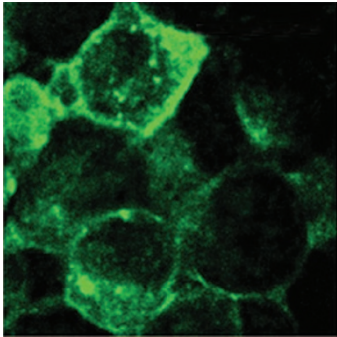


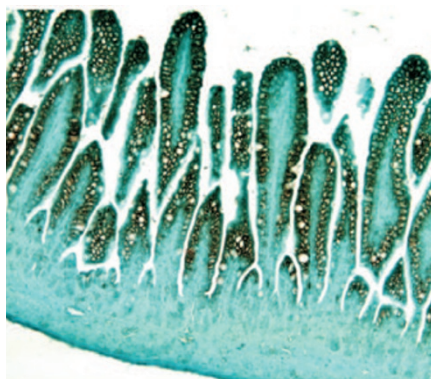
doi:10.1038/pr.2012.33

Screening for cereal toxicity



K562(S) agglutination is a tool for *in vitro* screening of cereal toxicity in celiac disease. Silano and colleagues found that the agglutination of K562(S) cells via gliadin preparation or gliadin-derived peptides is triggered by a cascade of events that occur at the cell surface upon contact with toxic gluten fractions and that involves surface mechanisms similar to those induced in intestinal epithelial cells. [See page 532](#)

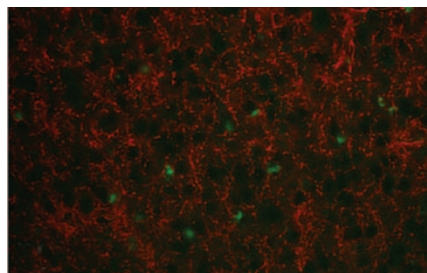
Antimicrobial peptides in necrotizing enterocolitis



Underwood and colleagues investigated the expression of antimicrobial peptides in experimental necrotizing enterocolitis (NEC) as well as the

impact of probiotics on such expression. The induction of antimicrobial peptides that occurs in experimental NEC is similar to that reported in human disease and is attenuated when disease is averted by probiotic *Bifidobacterium bifidum*. Induction of antimicrobial peptides is probably an adaptive mucosal response that is often insufficient to prevent disease in the premature gut. [See page 546](#)

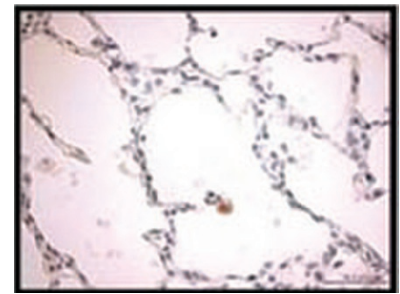
Glucocorticoids and brain damage



Pang and colleagues investigated whether dexamethasone and betamethasone, two of the most commonly used glucocorticoids, protect against lipopolysaccharide (LPS)-induced white-matter damage and neurobehavioral dysfunction. LPS or sterile saline was injected into the brain of rat pups at postnatal day 5, and dexamethasone or betamethasone was given intraperitoneally one hour before cerebral LPS injection. The authors conclude that if adverse effects can be minimized, glucocorticoids might be candidate drugs to ameliorate brain damage in preterm infants. [See page 552](#)

Effects of pentoxifylline on lung injury

Almario *et al.* hypothesized that the phosphodiesterase inhibitor pentoxifylline (PTX) would have



a protective effect on hyperoxia-induced lung injury in neonatal rats. Their data indicate that reduced lung edema and inflammation, increased antioxidant enzyme activities, and improved vascularization may be responsible for the improvement in survival when PTX is used during hyperoxia. Thus, PTX might help reduce some of the features of bronchopulmonary dysplasia in preterm newborns. [See page 583](#)

Are cleft palate and short stature related?

Individuals with isolated cleft lip and/or palate (ICLP) are often reported to be shorter than their peers as well as deficient in growth hormone. Van der Plas and collaborators explored the role of the pituitary in growth. Their findings suggest that there are no gross morphological differences in pituitary volume in individuals with ICLP as compared with controls, although more subtle differences may exist. [See page 612](#)

