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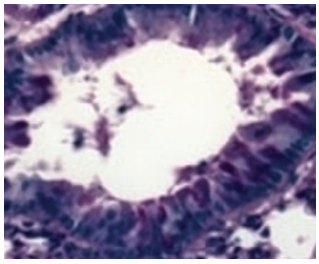

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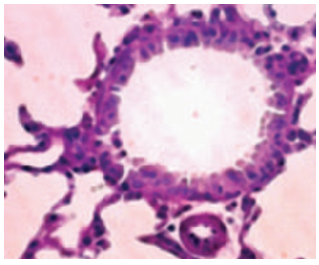
The yin and yang of intestinal neutrophils

Bénédicte Fournier and Chuck Parkos examine the essential roles for neutrophils in the maintenance of intestinal homeostasis via their ability to eliminate microbes and facilitate wound healing, as well as their contributions to immune pathology in inflammatory conditions such as inflammatory bowel disease. See page 354

Antimicrobial peptides

Mats Andersson and colleagues discuss in detail the antimicrobial cryptdin-related-sequence peptides that are produced by Paneth cells in mice. The authors also provide an elegant description of the developmental and functional relationships of these peptides to defensins. See page 367



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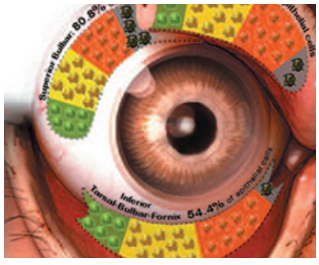
Altered epithelial cell ion transport in CCR7-deficient mice

Michael Schumann and coauthors show that chronic diarrhea in CCR7-deficient mice is associated with increased intestinal lymphoid follicle formation, T-cell activation, and altered ion transport by epithelial cells, possibly as a result of interleukin-1β production. See page 377

miR-375 regulates IL-13 responses

Thomas Lu and colleagues identified microRNAs that are differentially regulated in epithelial cells after interleukin-13 (IL-13) stimulation and found that miR-375, in addition to having a role in modifying IL-13-associated inflammatory pathways, is a biomarker for inflammation in eosinophilic esophagitis. See page 388



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Mucus stasis and inflammation

Using Scnn1b-transgenic mice, Alessandra Livraghi-Butrico and co-workers demonstrate physiological mechanisms for bacterial infection and inflammation associated with mucus stasis in the lung. See page 397

Semaphorin 4a controls airway inflammation

Eusebius Henry Nkyimbeng-Takwi and colleagues found that the costimulatory glycoprotein semaphorin 4a, which interacts with Tim-2 on T cells, acts to inhibit allergic airway responses in a mouse model of asthma. See page 409

Airway T cells in TB

Carly Horvath and co-workers demonstrate that poor airway luminal T-cell responses underlie the delayed immunity to *Mycobacterium tuberculosis* infection following parenteral bacillus Calmette–Guérin immunization. See page 420

Suppressive pDCs

Vincent Lombardi and colleagues provide evidence that $CD8\alpha^{+}\beta^{-}$ or $CD8\alpha^{+}\beta^{+}$ plasmacytoid dendritic cell populations can suppress airway inflammation by inducing $Foxp3^{+}$ regulatory T cells via the production of retinoic acid. See page 432

B cells disseminate anthrax

Manira Rayamajhi and colleagues demonstrate that B cells, and not dendritic cells, mediate the initial trafficking of spores of *Bacillus anthracis* from the lung to draining lymph nodes. See page 444

Defining the human conjunctiva

Roberto Reinoso and coauthors describe discrete regions of the normal human conjunctiva with unique immunological, proliferative, and apoptotic profiles. See page 455