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Microbiota and inflammation

Balfour Sartor poses several key questions to guide our understanding of host–microbe relationships in the setting of intestinal inflammation. [See page 127](#)

Quorum sensing

Meredith Curtis and Vanessa Sperandio provide insight into the complex relationship between intestinal microbes and mammalian hosts, giving special attention to mechanisms of intra- and interspecies and interkingdom communication. [See page 133](#)

Eosinophilic esophagitis

Daniel Mulder and Christopher Justinich review our current understanding of the immunological mechanisms that contribute to the pathogenesis of eosinophilic esophagitis. [See page 139](#)

Mice vs. humans

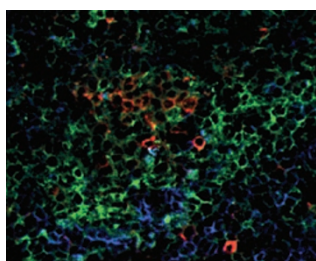
Deena Gibbons and Jo Spencer review some of the differences in the structure and development of mucosal lymphoid compartments between mice and humans, as well as species differences in intestinal T- and B-cell biology. [See page 148](#)

Pseudomonas pyocyanin drives mucus secretion

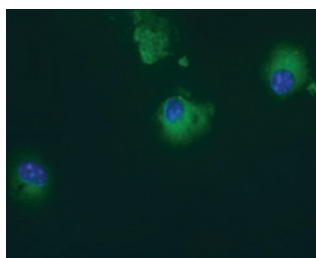
Balázs Rada and co-workers demonstrate that pyocyanin drives mucin production and secretion in bronchial epithelial cells by affecting EGF signaling. [See page 158](#)

TL1A-DR3 and inflammation

Françoise Meylan and colleagues found that TL1A–DR3 interactions drive the spontaneous development of interleukin-13-dependent small-intestinal inflammation. [See page 172](#)



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TL1A attenuates Tregs

Vadim Taraban and colleagues demonstrate that transgenic expression of TL1A on dendritic cells results in the development of goblet-cell hyperplasia in the intestine, which is associated with attenuated regulatory T-cell function *in vitro*. [See page 186](#)

Immunotherapeutic for influenza

Wendy Tai and colleagues describe the development of a liposome-based vaccine formulation that provided innate and acquired protection against multiple strains of influenza in mice. [See page 197](#)

T-cell trafficking in *Chlamydia* infection

Andrew Olive and colleagues show an essential role for CXCR3 and CCR5 expression by CD4⁺ T cells for protection against genital *Chlamydia trachomatis* infection in mice. [See page 208](#)

IL-4 and mast cells control *F. tularensis* replication

Annette Rodriguez and co-workers provide evidence that interleukin-4 can decrease apoptosis, increase phagocytosis, and enhance antibacterial activity of macrophages infected with *Francisella tularensis*. [See page 217](#)

E. coli LTB promotes Tregs

David Donaldson and colleagues report that *Escherichia coli* heat-labile enterotoxin B promotes the development of Foxp3⁺ regulatory T cells following intranasal administration. [See page 227](#)

Regulation of IL-25 production in the human gut

Daniele Fina and colleagues demonstrate that tumor necrosis factor- α suppresses and transforming growth factor- β 1 enhances the production of interleukin (IL)-25 by colon explants. [See page 239](#)