

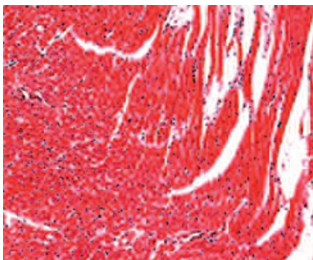
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## Leptin and mucosal immunity

Nicole Mackey-Lawrence and Bill Petri discuss how the adipokine leptin affects immunity to mucosal infections and describe a newly uncovered role for leptin-receptor polymorphisms in mediating human susceptibility to intestinal *Entamoeba histolytica* infection. [See page 472](#)

## Chronic inflammation and lung fibrosis

Alex Gifford and co-workers discuss the pathogenesis of chronic fibrosing lung diseases, point out limitations of current animal models, and propose the existence of two distinct disease phenotypes to account for the myriad of clinical features of these diseases. [See page 480](#)



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## *Bordetella pertussis*

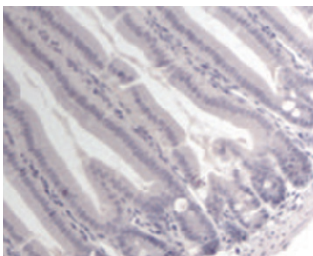
Rowan Higgs and colleagues provide a scholarly update on immunity to respiratory infection with *Bordetella pertussis*, the cause of whooping cough in infants, and review the successes and limitations of current vaccines. [See page 485](#)

## Epithelial cell MyD88 signaling and barrier function

Aubrey Frantz and colleagues demonstrate a crucial role for MyD88-signaling pathways in mediating innate protection of the intestinal epithelium, resulting in prevention of bacterial infection and dissemination as well as of inflammatory bowel disease in mouse models. [See page 501](#)

## IL-17A-producing cells in celiac disease

Raffaella La Scaleia and co-workers describe the developmental dynamics of interleukin-17A-producing cells in the peripheral blood and intraepithelial cell compartments in humans and their impaired development in patients with celiac disease. [See page 513](#)



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## Airway allergy exacerbates bacterial infection

Using a mouse model of allergic airway disease, Maryam Habibzay and colleagues found that allergic

inflammation suppresses neutrophil recruitment, allowing enhanced bacterial infection and dissemination. [See page 524](#)

## Macrophage Ship1 affects Th2 responses to helminths

Sima Hadidi and colleagues identify a critical role for Ship1 in the negative regulation of interleukin-12/23p40 production by macrophages and the development of protective T helper type 2 responses during infection with the intestinal helminth parasite *Trichuris muris*. [See page 535](#)

## Early events dictate lung-transplantation acceptance

Using a mouse model, Wenjun Li and colleagues demonstrate that events contributing to lung-transplantation acceptance are established early in the graft and are associated with the development of bronchus-associated lymphoid tissue. [See page 544](#)

## Intestinal T-cell reconstitution in humanized mice

Paul Denton and colleagues establish a novel method for repopulating the intestinal compartment of humanized mice. In addition, they show an essential role for host interleukin-2 receptor  $\gamma$ -chain in this process. [See page 555](#)

## Host transcriptome and microbial dynamics during colonization

Sahar El Aidy and coauthors provide a detailed longitudinal analysis of host transcriptome and bacterial community composition in multiple intestinal segments following colonization of germ-free mice with a conventional microbiota. [See page 567](#)

## Mesenteric fat and bacterial translocation

Arvind Batra and co-workers demonstrate that, in dextran sulfate sodium-induced colitis in mice, colonic inflammation is accompanied by bacterial translocation to adjacent adipose tissues and results in cytokine production and immune-cell infiltration. [See page 580](#)