

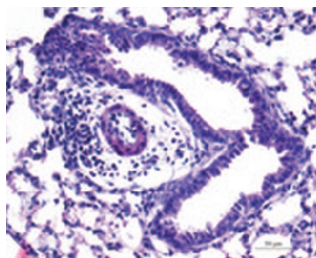
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Ovarian steroids and *C. trachomatis* infection

Louise Hafner and colleagues discuss the effects of the ovarian steroids estrogen and progesterone on innate and adaptive immunity in the female genital tract, particularly in response to *Chlamydia trachomatis* infection. [See page 859](#)

Molecular methods for diagnosing infectious diarrhea

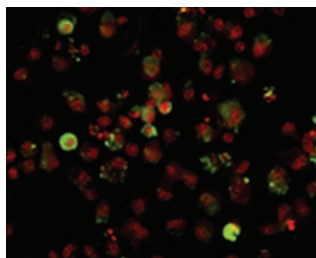
Standard methods to diagnose intestinal infections can be cumbersome, and they are often difficult to interpret. James Platts-Mills *et al.* discuss the range of available methods to diagnose infectious diarrheas, including new molecular approaches that are leading to new definitions of disease, particularly in resource-poor areas of the world. [See page 876](#)



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TL1A drives TNF α production from human T cells

Shu Jin and co-workers demonstrate a direct role for tumor-necrosis factor (TNF)-like cytokine 1A (TL1A)/TNF superfamily member 15 in driving the production of pro-inflammatory cytokines, including TNF α , from human CD3+ CD161+ T cells as well as increased TL1A and CD161 expression in gut biopsies from patients with inflammatory bowel disease. [See page 886](#)



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Th17 cells confer long-term protection against candida

Using an infection and re-challenge model, Nydiaris Hernández-Santos and colleagues found that T helper type 17 (Th17) cells, but not Th1 or innate Th17-producing cells, provided long-term protection against oropharyngeal candidiasis in mice. [See page 900](#)

Mast cell chymase degrades IL-33

Ida Waern and colleagues report that mouse mast cell protease 4 can protect against allergic airway inflammation induced by house-dust mite extract, probably owing to its ability to degrade interleukin (IL)-33. [See page 911](#)

Autocrine IL-33 from DCs in allergic conjunctivitis

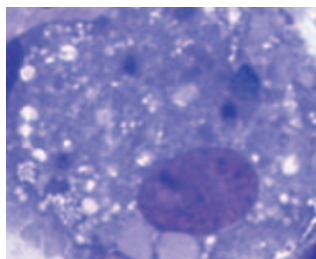
Zhitao Su and colleagues identified a possible autocrine role for interleukin (IL)-33 produced by bone marrow and tissue-derived dendritic cells (DCs) from inflamed conjunctiva. [See page 921](#)

Helminth infection enhances control of mycobacterial infection

Nelita du Plessis and colleagues present data demonstrating that early-stage *Nippostrongylus brasiliensis* infection elicits a macrophage response that is protective during the early stages of subsequent pulmonary mycobacterial infection. [See page 931](#)

Primary antibody responses in bovine PPs are associated with AID expression

Jenni Lijavirta and co-workers found that activation-induced cytidine deaminase (AID) is strongly expressed in fetal bovine ileal Peyer's patches (PPs) and spleen and is associated with primary antibody responses. [See page 942](#)



p 931

Th17 cells and gastric inflammation during *H. pylori* infection in children

Carolina Serrano and colleagues demonstrate that reduced gastric inflammation and neutrophil accumulation in children with *Helicobacter pylori* infection is associated with decreased numbers of gastric T helper type 17 (Th17) cells and enhanced Foxp3 and interleukin-10 expression, as compared with adults. [See page 950](#)

HSP90 drives intestinal inflammation

In studies of mouse models of inflammatory bowel disease, Colm Collins and colleagues identified a role for heat-shock protein 90 (HSP90) in driving intestinal inflammation, the inhibition of which enhanced regulatory T-cell function and interleukin-10 production. [See page 960](#)



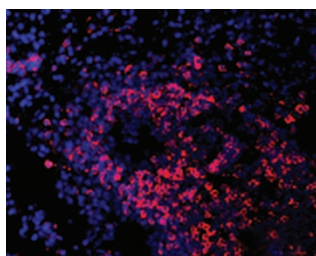
p 960

IL-17 mediates vaccine-induced protection against TB

Radha Gopal and colleagues show that interleukin (IL)-17 mediates protection against *Mycobacteria tuberculosis* infection in mice following immunization with mucosal adjuvants, such as type II heat-labile enterotoxin. [See page 972](#)

Low numbers of pDCs in celiac disease

Melinda Ráki and colleagues found that, contrary to previous findings, plasmacytoid dendritic cells (pDCs) are scarce and interferon- α is expressed at low levels in human intestinal tissue from patients with celiac disease. [See page 985](#)



p 972

Flagellin induces protective S100A8 and S100A9 in corneal epithelial cells

By means of transcriptional analysis of corneal epithelial cells in response to flagellin, Nan Gao and co-workers identified S100A8 and S100A9 as being protective against *Pseudomonas aeruginosa* infection. [See page 993](#)

$\alpha\beta$ T cells prime innate immunity in the lung

Sanjeev Kumar and colleagues report that $\alpha\beta$ T cells play an essential role in priming innate immunity in the lung after inhalation of *Staphylococcus aureus* enterotoxin A. [See page 1006](#)

NK cells prevent DSS colitis via NKG2A

Using the dextran sulfate sodium (DSS) model of colitis, Lindsay Hall and co-workers found that natural killer (NK) cells inhibit colitis induction by suppressing neutrophil reactive oxygen species and cytokine production via direct interactions with NKG2A receptors. [See page 1016](#)

Poor M-cell maturation in aged mice

Atsushi Kobayashi and colleagues demonstrate a marked decline in the functional maturation of Peyer's patch M cells in aged mice. [See page 1027](#)