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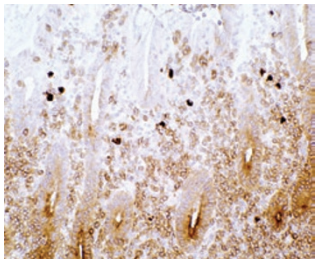

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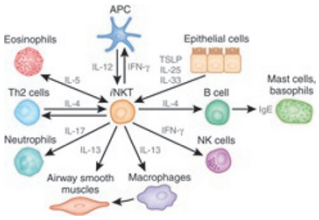
Anergic macrophages

In News and Highlights, Phil Smith and colleagues briefly discuss the unique noninflammatory, yet highly phagocytic, characteristics of intestinal macrophages and their idea that such cells have evolved to provide effective immune surveillance while limiting inflammation at this site. See page 378

Experiments of nature reveal B-cell origins

In their enlightening Commentary, Spencer and Dogan discuss how studying the low-grade mucosa-associated lymphoid tissue lymphomas that arise in mucosal sites can provide insight into the origins and migratory patterns of B cells. See page 380



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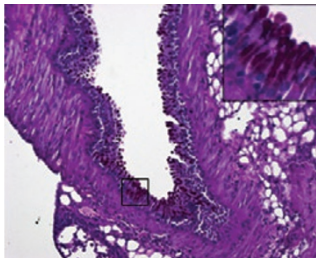
NKT cells in mucosal immunology

This issue brings together two insightful reviews on the role of natural killer T (NKT) cells in mucosal immunity and inflammation. Matangkasombut and colleagues review data indicating an essential role for invariant NKT (iNKT) cells in the pathogenesis of both allergic and nonallergic forms of asthma. In a companion review, Middendorp and Nieuwenhuis discuss new findings regarding the function of iNKT and other NKT cell populations in intestinal immunology, including their potential role in influencing commensal bacteria through effects on Paneth cell function. See page 383



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Th17 cells at the crossroads

Khader and colleagues review recent evidence addressing the functions of T helper type 17 cells and their products during immune responses to viral, bacterial, and fungal pathogens at a variety of mucosal surfaces. Furthermore, they discuss how these essential cells may provide an important bridge between innate and adaptive mucosal immunity. See page 403

IgA in the front line against HIV

Mucosal immunoglobulin A (IgA) responses against the HIV-1 envelope gp41 subunit correlate with protection in some highly exposed but persistently IgG-seronegative (HEPS) individuals. Tudor and colleagues generated and molecularly characterized mucosal monoclonal IgA antibodies from HEPS individuals that demonstrate *in vitro* transcytosis-blocking and infection-neutralizing activity. They propose that such neutralizing monoclonal IgA could inform vaccine strategies and be used in microbicide formulations. See page 412

$CD8^+$ T cells in oral tolerance

From the early days of suppressor T cells to the advent of knockout animals, the role of $CD8^+$ T cells in oral tolerance has been unclear and controversial. Arnaboldi *et al*. have developed an *in vivo* model demonstrating that a regulatory $CD8^+$ T-cell population can be induced by feeding class I peptides and that these cells can modulate T helper type 1 (Th1) and Th17 responses independently of $CD4^+$ regulatory T cells. See page 427

SIV targets $\alpha4\beta7$-expressing Th17 cells

The study by Kader and colleagues describes how early simian immunodeficiency virus infection targets $\alpha4\beta7^+$ cells, which contain most T helper type 17 (Th17) cells. The resulting imbalance in Th1 and Th17 cells may contribute to disease pathogenesis by rendering the host's mucosal surfaces vulnerable to infection. See page 439

Compartmentalized of $CD8^+$ T-cell responses

Using the mouse model of vaccinia virus infection, Isakov and colleagues provide support for the provocative conclusion that $CD8\alpha\beta^+$ $TCR\alpha\beta^+$ intestinal intraepithelial and lamina propria lymphocytes are highly dissimilar with respect to their functional capacities and T-cell-receptor usage, suggesting limited migration between these adjacent compartments. See page 450