



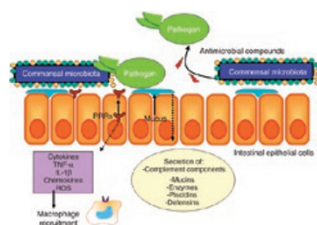
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More than simply IgA

In News and Highlights, Kristi Baker and colleagues discuss the often overlooked role of secretory immunoglobulins—IgM, IgG, and IgD—in mucosal immune defense and homeostasis. [See page 324](#)

Oral tolerance in neonates

Valérie Verhasselt examines the extent to which knowledge about oral tolerance from adult animal models can be applied to neonates, the influence of breast-feeding on tolerance induction, and the possibility of effecting oral tolerance to prevent allergic disease. [See page 326](#)



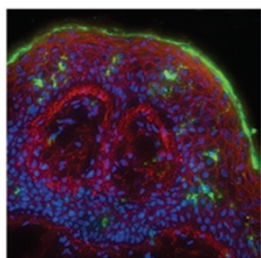
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Inducing tolerance to prevent allergic lung disease

Clare Lloyd and Jenna Murdoch discuss the mechanisms by which tolerance to inhaled antigens is maintained while allowing for effective immunity to lung pathogens, and how tolerance may be induced to prevent allergic lung disease. [See page 334](#)

Active therapy for food allergy

Allergen avoidance has been the mainstay of therapy for food allergies, but the logistics can be difficult for patients. Amy Scurlock and colleagues outline the development of novel oral and sublingual immunotherapies that aim to induce oral tolerance to allergenic foods. [See page 345](#)



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The fish microbiome

Tania Pérez and colleagues describe the normal commensal flora of teleost fish as well as attempts to use probiotic agents to improve immune system development, growth rates, and overall health in a variety of fish species. [See page 355](#)

IL-22 in defense against *Candida albicans*

Antonella De Luca and colleagues demonstrate that interleukin-22 plays a critical role in defense against the human pathogen *Candida albicans* by

both controlling the growth of infected yeasts and promoting epithelial integrity. [See page 361](#)

Enhancement of STAT3 activation by cholera toxin

Anna Sjöblom-Hallén and colleagues show that treatment with cholera toxin can enhance STAT3 gene expression and augment STAT3 phosphorylation in response to both interleukin-6 and -10, providing a cogent mechanism for both pro- and anti-inflammatory activities of cholera toxin. [See page 374](#)

Baseline intestinal barrier dysfunction in pigtail macaques

Pigtail macaques progress rapidly to AIDS after infection with the simian immunodeficiency virus (SIV). Nichole Klatt and colleagues demonstrate that baseline bacterial translocation in these animals is associated with systemic immune activation even in the absence of SIV infection. [See page 387](#)

Immune deficits in asthmatic children with airway obstruction

Using microarray analysis of sputum samples, Anthony Bosco and colleagues provide data indicating that inflammatory responses during asthma exacerbations are attenuated in children with airway obstruction. [See page 399](#)

Potential role for inner foreskin in HIV infection

Studies by Kelly Fahrback and colleagues reveal that cells in the inner and outer foreskin differ in their exposure to exogenous antigens, activation by exogenous cytokines, and ability to induce CD4⁺ T-cell influx. [See page 410](#)