FROM THE FDITORS











ith the season of goodwill almost upon us, tolerance is a key theme of 2010's final issue of Nature Reviews Immunology. On p849, Jane Hoyt Buckner describes the different regulatory T cell deficiencies that lead to the development of autoimmune disease in humans, while in the Science and Society article on p868, Paul Fairchild argues that despite the undoubted therapeutic potential of induced pluripotent stem cells, there is still a need for better tolerance-induction protocols to overcome immunogenicity.

Shannon Turley and colleagues highlight the role of the lymph node stroma in maintaining peripheral tolerance in their Review article on p813, in which they discuss how different resident antigen-presenting populations in the lymph node shape T cell responses. Regulatory T cells also feature prominently in the article by Clare Lloyd and Edith Hessel on p838; they describe the functions of distinct populations of T cells in asthma, stressing that T helper 2 cells are not the only T cell subset with important functions in the allergic lung.

Continuing with the theme of allergy, our cover this month is inspired by the Perspective article on p861 by Erika von Mutius and Donata Vercelli. They consider the mechanisms by which perinatal exposure to farm-derived products can educate our immune systems and decrease the risk of developing asthma later in life, and discuss the role of pattern recognition receptors (PRRs) in this protective effect.

However, PRRs are not only used for sensing microorganisms — in our featured article, on p826, Grace Chen and Gabriel Nuñez describe the functions of PRRs in promoting sterile inflammation. Although such responses probably evolved to promote the repair of damaged tissues, the authors explain how they can also be involved in perpetuating chronic inflammatory diseases.

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