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Sommario/riassunto	<p>Natural antibodies (NAbs) are found in normal individuals in the absence of exogenous antigenic stimulation. Natural antibodies rapidly recognize and protect against pathogens that have not been previously encountered. NAbs also cross-react with several self-antigens, which, besides their role as a first line of defense against pathogens, affords them the ability to perform important housekeeping functions in healthy organisms. Such housekeeping functions include the clearance of oxidized damaged structures and/or apoptotic cells, which prevents the induction of pro-inflammatory effects. In addition, NAbs play a role in preventing the expansion of specific auto-reactive clones, thereby behaving as regulatory elements in acute or chronic inflammation. To maintain the non-pathogenic balance between the dual pathogen/self-antigen cross-reactivities of NAbs, a strict regulation in NAb secretion and function is necessary to avoid autoimmune disease. Actually, some of the NAbs related auto-reactivities, such as anti-DNA and anti-MOG, have been associated with autoimmunity. Furthermore, NAbs have been shown to bind to 'neo-self' carbohydrate antigens on glycolipids and glycoproteins found on malignant but not normal cells, which suggests NAbs may take part in tumor immunosurveillance. Many aspects regarding NAbs have yet to be studied in more detail: the reactivity and function of NAbs in health and disease, the behavior of the NAb repertoire with increasing age, the regulation of natural antibody production and auto-reactivity, the ways to specifically activate NAbs</p>

producing cells with desired specificities, the characteristics of human NAbs, among others. This special topics eBook consists of a number of articles exploring the cells that produce NAbs as well as the characteristics, function, specificity, and/or the role of natural antibodies in health and disease.

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