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Nature

REVIEWS

June 2014 volume 14 no. 6
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IMMUNOLOGY

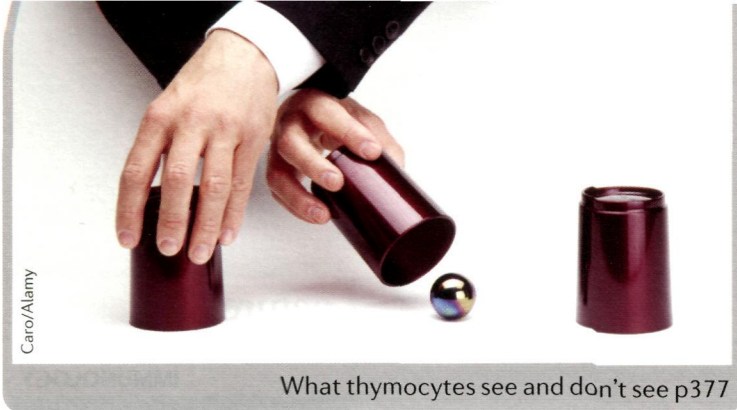


APC POPULATIONS

New articles highlight the immune cells that keep on giving!

Presenting immunology

Engaging the public with the immune system



Caro/Alamy

What thymocytes see and don't see p377

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361 Post-transcriptional regulation of gene expression in innate immunity

Susan Carpenter, Emiliano P. Ricci, Blandine C. Mercier, Melissa J. Moore and Katherine A. Fitzgerald

In this Review, the authors highlight the importance of the diverse mechanisms that regulate the expression of innate immune genes post transcription. These regulatory mechanisms act at the level of mRNA splicing, mRNA polyadenylation, mRNA stability and protein translation, and they are important for controlling the magnitude and duration of inflammatory responses.

377 **Positive and negative selection of the T cell repertoire: what thymocytes see (and don't see)**

FEATURED ARTICLE

Ludger Klein, Bruno Kyewski, Paul M. Allen and Kristin A. Hogquist

Here, the authors describe the key characteristics of the different antigen-presenting cell (APC) populations that govern T cell development in the thymus. They discuss how the interactions that occur between thymocytes and thymic APCs shape the mature T cell repertoire, and how they subsequently affect the nature of peripheral immune responses.

392 Monocytes and macrophages: developmental pathways and tissue homeostasis

Florent Ginhoux and Steffen Jung

Our understanding of the ontogeny of monocytes and macrophages, as well as their maintenance in the steady state, has recently undergone a renaissance. Here, Ginhoux and Jung discuss the evidence that has changed our view of the relationship between monocytes and tissue macrophages during development and in the steady state.

405 The mycobiota: interactions between commensal fungi and the host immune system

David M. Underhill and Iliyan D. Iliev

Research into the role of commensal microorganisms in influencing the immune system has mainly focused on bacterial communities. Here, the authors review recent studies that highlight the importance of commensal fungi and how the immune system interacts with these communities at different body sites.

417 The origins and functions of dendritic cells and macrophages in the skin

Bernard Malissen, Samira Tamoutounour and Sandrine Henri

Recent studies of ontogeny and gene expression have enabled the discrimination of dendritic cell and macrophage subsets in mouse skin and the identification of their human counterparts, which has led to a growing appreciation of the functional specialization of these subsets.

On the web www.nature.com/reviews/immunol

Advance online publication

We operate an advance online publication (AOP) service for authors and readers to view the latest articles published online ahead of print.

Forthcoming articles:

Follicular dendritic cells: dynamic antigen libraries
Balthasar A. Heesters, Riley C. Myers and Michael C. Carroll

From empiricism to rational design: a personal perspective of the evolution of vaccine development

Ennio De Gregorio and Rino Rappuoli

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Links to further information

The full text of articles includes author biographies, links to glossary terms and links to websites and databases with relevant information.

Key points provides a bullet-pointed summary of the main topics covered in each article.

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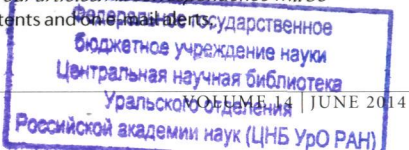
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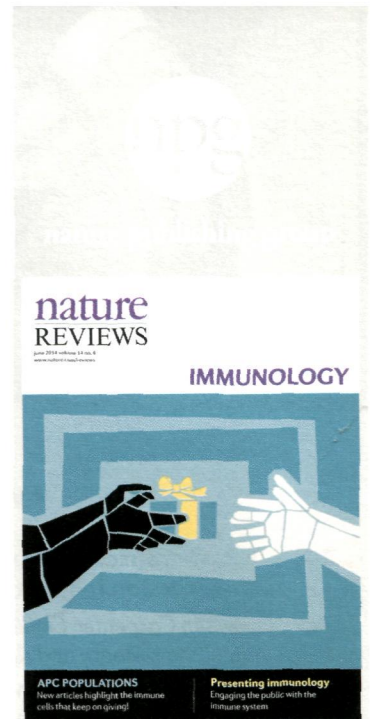
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► **COVER:** 'Presenting immunology' by Simon Bradbrook, inspired by the Review on p377.

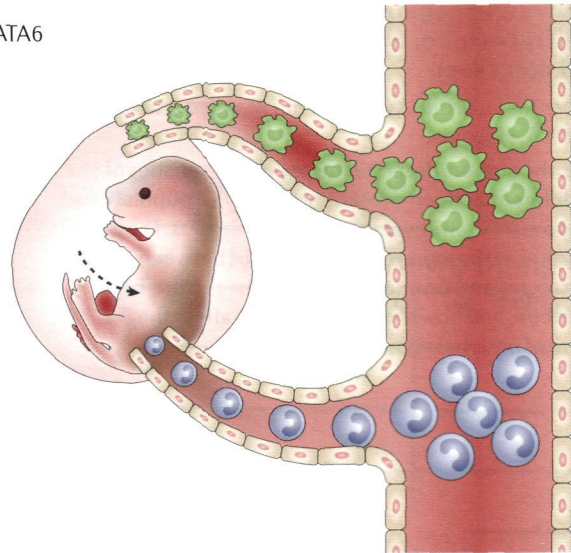
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