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REVIEWS

january 2013 volume 13 no. 1
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IMMUNOLOGY



PLAYING WITH FIRE

Views on resolving inflammation

Immunothrombosis

A bright side of thrombosis in



Protecting the fetus p23

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REVIEWS

9 Eosinophils: changing perspectives in health and disease

Helene F. Rosenberg, Kimberly D. Dyer and Paul S. Foster

This Review describes the unique biology of the eosinophil. The authors explain how eosinophils interact with other leukocyte populations to promote protective immunity following infection. They also discuss the pathological roles of eosinophils in allergic-type diseases, such as asthma and the hypereosinophilic syndromes.

46 The broad-spectrum antiviral functions of IFIT and IFITM proteins

Michael S. Diamond and Michael Farzan

Recent interest in identifying interferon-stimulated genes that have activity against a wide range of viruses has advanced our understanding of the IFIT and IFITM families and shown the many mechanisms by which host factors can restrict viral replication.

23 Mechanisms of T cell tolerance towards the allogeneic fetus

FEATURED
ARTICLE

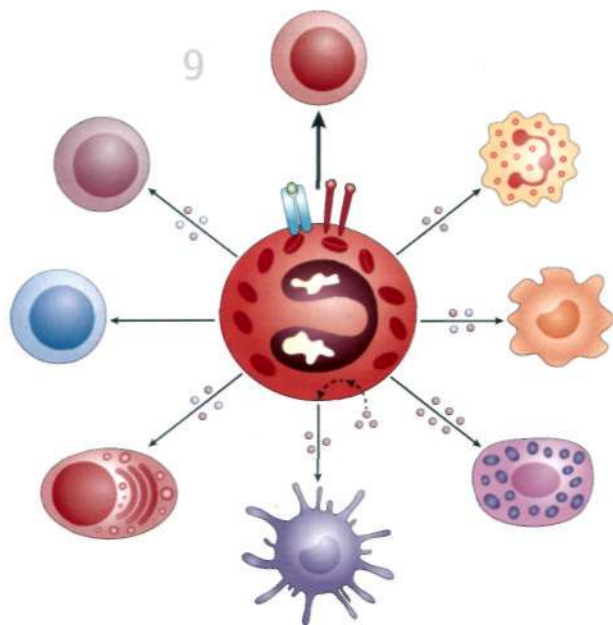
Adrian Erlebacher

Several mechanisms exist to prevent immune-mediated rejection of the allogeneic fetus. Here, Adrian Erlebacher provides an in-depth review of recent advances in our understanding of the mechanisms that control the responses of maternal T cells to antigens expressed by the conceptus.

34 Thrombosis as an intravascular effector of innate immunity

Bernd Engelmann and Steffen Massberg

Thrombosis is the most frequent cause of mortality worldwide. In this Review, the authors propose that thrombosis might also have a conserved physiological role in immune defence via a process termed immunothrombosis. However, if uncontrolled, immunothrombosis facilitates pathological clot formation.



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Jennifer A. Walker, Jillian L. Barlow and Andrew N. J. McKenzie

Invariant natural killer T cells: an innate activation scheme linked to diverse effector functions

Patrick J. Brennan, Manfred Brigl and Michael B. Brenner

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

At a glance provides a bullet-pointed summary of the main topics covered in each article.

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- 2 HIV A dead calm
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- 3 T CELL RESPONSES Antiviral immunity ticks both T-boxes
- 4 IMMUNOTHERAPY Immunological bullets against Alzheimer's disease
- ANTIBODIES Getting the trigger the right way round
- 5 CELL MIGRATION Pericytes — route planners
- 6 IN BRIEF Regulatory T cells | T cell responses | Immunometabolism
- MUCOSAL IMMUNOLOGY Bewildered progenitors
- AUTOIMMUNITY Particulate promotion of tolerance
- 7 IN BRIEF Macrophages | Mucosal immunology | Gene regulation

PERSPECTIVES

VIEWPOINT

59 The resolution of inflammation

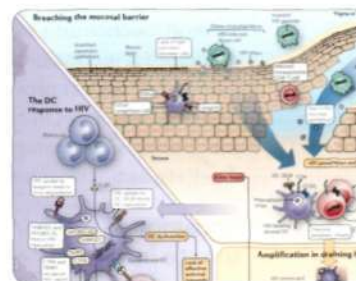
Christopher D. Buckley, Derek W. Gilroy, Charles N. Serhan, Brigitta Stockinger and Paul P. Tak

In this Viewpoint article, five leading immunologists discuss the processes involved in the resolution of inflammation. Could drugs that promote pro-resolution pathways be more effective than drugs that block pro-inflammatory mediators in treating certain chronic inflammatory diseases? The contributors debate this and other key issues in the field.



► COVER: 'On hot ice' by Simon Bradbrook, inspired by the Viewpoint on p59.

POSTER THE IMMUNE RESPONSE TO HIV



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