

nature REVIEWS

NATURE REVIEWS IMMUNOLOGY

EDITORIAL OFFICES

LONDON NatureReviews@nature.com The Macmillan Building,
4 Crinan Street, London N1 9XW

Tel: +44 (0)20 7843 4624; Fax: +44 (0)20 7843 3629

CHIEF EDITOR: Elaine Bell

ASSOCIATE EDITORS: Kirsty Minton, Karen Honey, Lucy Bird

COPY EDITOR: Davina Dudley-Moore

ART EDITOR: Neil Smith

SENIOR COPY EDITOR: Emma Green

ART CONTROLLER: Nicola Hawes

SENIOR ART EDITORS: Susanne Harris, Claudia Bentley

MANAGING PRODUCTION EDITOR: Judith Shadwell

DEPUTY PRODUCTION EDITOR: Simon Fenwick

OFFICE MANAGER: Luisa Estanislao

EDITORIAL ASSISTANT: Sheryl Ocampo

WORLD WIDE WEB: <http://www.nature.com/reviews>

DIRECTOR OF ELECTRONIC PUBLISHING SERVICES: Don Fick

GLOBAL ELECTRONIC PRODUCTION MANAGER: Jeremy Macdonald

ELECTRONIC PRODUCTION MANAGER, UK: Amanda Ward

ELECTRONIC PRODUCTION COORDINATORS: Catherine Alexander,
Puja Kamdar, Christina Large, Alexander Thurrell, Amy Wagner

MANAGEMENT OFFICES

LONDON nature@nature.com The Macmillan Building, 4 Crinan Street,
London N1 9XW Tel: +44 (0)20 78333 4000; Fax: +44 (0)20 7843 4596/7

MANAGING DIRECTOR: Annette Thomas

PUBLISHER: Hugh Blackbourn

ASSOCIATE DIRECTORS: Jenny Henderson, Tony Rudland

EDITOR-IN-CHIEF, NATURE PUBLICATIONS: Philip Campbell

GLOBAL HEAD OF ADVERTISING SALES: Fabien Savenay

MARKETING MANAGERS: Anna Duguid, Kelly Lane

EDITORIAL PRODUCTION MANAGER: James McQuat

PRODUCTION MANAGER: Yvonne Strong

PRODUCTION CONTROLLER: Natalie Smith

NEW YORK nature@natureny.com 345 Park Avenue South, 10th Floor,
New York, NY 10010-1707 Tel: +1 212 726 9200; Fax: +1 212 696 9006

CHIEF TECHNOLOGY OFFICER: Howard Ratner

US HEAD OF DISPLAY ADVERTISING: Stephen Schwartz

NATUREJOBS PUBLISHER: Ben Crowe

HEAD OF NATURE RESEARCH & REVIEWS MARKETING: Sara Girard

TOKYO nature@naturejpn.com MG Ichigaya Building (5F),
1-1 Haraikatomachi, Shinjuku-ku, Tokyo 162-0841

Tel: +81 3 3267 8751; Fax: +81 3 3267 8746

ASIA-PACIFIC PUBLISHER: Antoine E Bocquet

MANAGER: Koichi Nakamura

ASIA-PACIFIC SALES DIRECTOR: Kate Yoneyama

SENIOR MARKETING MANAGER: Peter Yoshihara

MARKETING/PRODUCTION MANAGER: Takeshi Murakami

INDIA 5A/12 Ansari Road, Daryaganj, New Delhi 110 002, India

Tel/Fax: +91 11 324 4186

SALES AND MARKETING MANAGER, INDIA: Harpal Singh Gill

Display advertising

display@natureny.com (USA) or display@nature.com (UK/ROW)

GLOBAL HEAD OF DISPLAY ADVERTISING: John Michael

Tel: +44 (0) 20 7843 4960; Fax: +44 (0) 20 7843 4749

US HEAD OF DISPLAY ADVERTISING: Stephen Schwartz

Tel: +1 212 726 9256; Fax: +1 212 696 9481

EUROPEAN HEAD OF DISPLAY ADVERTISING: Gerard Preston

Tel: +44 (0) 20 7843 4965; Fax: +44 (0) 20 7843 4749

BUSINESS DEVELOPMENT MANAGER: Claire Hines

Tel: +44 (0) 20 7843 4971; Fax: +44 (0) 20 7843 4749

SALES EXECUTIVES

NEW ENGLAND: Sheila Reardon

Tel: +1 617 399 4098; Fax: +1 617 426 3717

NEW YORK, MID-ATLANTIC, SOUTH EAST: Jim Breault

Tel: +1 212 726 9334; Fax: +1 212 726 9481

NORTHWEST: Mathieu Desjardins

Tel: +1 415 781 6422; Fax: +1 415 781 3805

MIDWEST: Mike Rossi

Tel: +1 212 726 9255; Fax: +1 212 696 9481

WESTERN REGION: George Lui

Tel: +1 415 781 3804; Fax: +1 415 781 3805

EASTERN ENGLAND/SCOTLAND, ITALY, SPAIN, ISRAEL:

Matthew Wilkinson Tel: +44 (0) 20 7843 4959;

Fax: +44 (0) 20 7843 4749

NORTHERN GERMANY: Gerard Preston

Tel: +44 (0) 20 7843 4960; Fax: +44 (0) 20 7843 4749

SOUTH/WEST UK, SCANDINAVIA, THE NETHERLANDS:

Marianne Boulakas Tel: +44 (0) 20 7843 4969; Fax: +44 (0) 20 7843 4749

SOUTHERN GERMANY, SWITZERLAND, AUSTRIA, FRANCE, BELGIUM:

Sabine Hugi-Fürst Tel: +41 52761 3386; Fax: +41 52761 3419

JAPAN: nature@naturejpn.com

Rinoko Asami, Nature Japan KK

Tel: +81 3 3267 8751; Fax: +81 3 3267 8746

Original design by Jane Walker

Copyright © 2005 Nature Publishing Group

Printed in the UK by The Friary Press on acid-free paper

Regulatory T cells — cells that maintain self-tolerance and inhibit inappropriate immune responses *in vivo* — come in many guises, and many diseases that are characterized by a dysregulated immune response, including asthma and autoimmunity, are associated with regulatory T-cell defects.

Two articles in this issue focus on different approaches to exploit regulatory T cells as a therapy. On page 271, Catherine Hawrylowicz and Anne O'Garra review the evidence that current therapeutic approaches for the treatment of some allergic diseases might function by inducing interleukin-10 (IL-10)-secreting regulatory T-cell populations. They also outline approaches that could be used in the future to improve the generation of allergen-specific IL-10-secreting regulatory T cells, with the aim of long-term alleviation of disease symptoms. By contrast, Jeffrey Bluestone (page 343) discusses the therapeutic potential of expanding the naturally occurring CD4⁺CD25⁺ regulatory T-cell population, either polyclonally or in an antigen-specific manner, for the treatment of graft-versus-host disease and autoimmunity. In his opinion, such treatments will soon be introduced.

Immunotherapy is also the topic of a Review by Jacques Banchereau and Aig. Karolina Palucka (page 296). In this article, they describe advances in our understanding of the ability of distinct dendritic cell (DC) subsets to induce different immune responses and the implications that this has for the development of DC-based vaccines against cancer. Similarly, on page 331, Michael Lotze and Kevin Tracey review the recent discovery that high-mobility group box 1 protein (HMGB1) is a cytokine with pathological effects in sepsis, arthritis and cancer, and they discuss the potential for modulation of its release and activity for the treatment of these diseases.



Elaine Bell



Kirsty Minton



Karen Honey



Lucy Bird