

**EDITOR-IN-CHIEF:** Robert R. Rich

**MANAGING EDITOR:** M. Michele Hogan

**PUBLICATION DIRECTOR:** Kaylene J. Kenyon

**DEPUTY EDITORS**

Barbara E. Bierer

Jeremy M. Boss

Pamela J. Fink

Jeffrey A. Frelinger

Jerry R. McGhee

Robert L. Modlin

Hidde L. Ploegh

Linda A. Sherman

Thomas F. Tedder

**SECTION EDITORS**

Amnon Altman

A. Dean Befus

Joan W. Berman

Melissa A. Brown

Esteban Celis

Thomas C. Chiles

Marco Colonna

Daniel H. Conrad

Andrea M. Cooper

Alison Finnegan

Patricia Fitzgerald-Bocarsly

Nicholas R. J. Gascoigne

Wayne W. Hancock

Cory M. Hogaboam

Gary B. Huffnagle

David A. Hume

Christopher A. Hunter

Stephen C. Jameson

Paul Kubes

Alan L. Landay

Klaus Ley

Paul E. Love

Jean S. Marshall

Carolyn Mold

Penelope A. Morel

David M. Mosser

Peter J. Murray

Cathryn R. Nagler-Anderson

Luke A. J. O'Neill

Suzanne Ostrand-Rosenberg

Anna Karolina Palucka

David W. Pascual

Marc Peters-Golden

Jeffrey L. Platt

Bali Pulendran

Michael K. Racke

Ellen V. Rothenberg

Mohamed H. Sayegh

Harry W. Schroeder, Jr.

David V. Serreze

Hao Shen

Joyce C. Solheim

William Stohl

Walter J. Storkus

Charles S. Via

Matthias G. von Herrath

Christopher M. Walker

David L. Woodland

Thomas A. Wynn

Teizo Yoshimura

Juan Carlos Zúñiga-Pflücker

ASSOCIATE EDITORS

Toru Abo  
Edward Abraham  
Luciano Adorini  
Devendra K. Agrawal  
Shizuo Akira  
Carla Jo Aldrich  
Hyadar Ali  
Julio Aliberti  
Sebastian Amigorena  
Ashok Amin  
Rui Appelberg  
Alfred Ayala  
Steven P. Balk  
Alan G. Baxter  
Stephen H. Benedict  
Cornelia C. Bergmann  
Holly H. Birdsall  
Elyse Y. Bissonnette  
Francisco Borrego  
Zacharie Brahmī  
Stefan Brocke  
Randy Brutkiewicz  
James J. Campbell  
Francis R. Carbone  
Marco A. Cassatella  
David M. Center  
Andrea Cerutti  
Lieping Chen  
Youhai H. Chen  
Bobby J. Cherayil  
Anita S.-F. Chong  
Mario P. Colombo  
David B. Corry  
Michael Croft  
Randy Q. Cron  
Tyler J. Curiel  
Mohammed Daha  
Horace M. DeLisser  
Eric Denkers  
Gunther Dennert  
Alexander L. Dent  
Raffaele De Palma

David Dombrowicz  
George R. Dubyak  
Karen L. Elkins  
Alexander H. Enk  
Peter B. Ernst  
David R. Fitzpatrick  
Dmitry I. Gabrilovich  
Thomas F. Gajewski  
Ricardo T. Gazzinelli  
Gabriele Grunig  
Alain Haziot  
You-Wen He  
Timothy Hoey  
Robert J. Hogan  
Vladimir N. Ivanov  
Dieter Kabelitz  
Mariana J. Kaplan  
Mark Kaplan  
Toshiaki Kawakami  
Michael P. Keane  
John R. Klein  
Jay K. Kolls  
Michele M. Kosiewicz  
Oberdan Leo  
Liwu Li  
Peter Linsley  
Robin G. Lorenz  
Martin Lotz  
Alberto Mantovani  
Francesco M. Marincola  
Ian Marriott  
Robert S. Mittler  
Steven B. Mizel  
Atsushi Mizoguchi  
B. Paul Morgan  
Bernhard Moser  
Muriel Moser  
Christian Munz  
William J. Murphy  
Christopher C. Norbury  
Rafael Nunez  
Joost J. Oppenheim

Giorgio Parmiani  
Seth H. Pincus  
Hanspeter Pircher  
Jonathan Powell  
Paolo Puccetti  
Jennifer A. Punt  
Ralph A. Reisfeld  
Charles R. Rinaldo  
Juan Rivera  
Paul F. Robbins  
John R. Rodgers  
Nikolaus Romani  
Pedro J. Romero  
Noel Rose  
Shimon Sakaguchi  
Stephen P. Schoenberger  
Wilhelm Schwaebler  
Luis J. Sigal  
Silvano Sozzani  
Pramod Srivastava  
Gary Starling  
Steffen Stenger  
Freda K. Stevenson  
Georg Stingl  
Jill Suttles  
Fumio Takei  
Wayne R. Thomas  
Vincent K. Tuohy  
David M. Underhill  
Luc Van Kaer  
Jos A. G. van Strijp  
Joanne L. Viney  
Hermann Wagner  
Ji Ming Wang  
Stephen G. Ward  
Hartmut Wekerle  
Andrew D. Wells  
Michael A. West  
Ifor R. Williams  
Osamu Yoshie  
Scott S. Zamvil

THE AMERICAN ASSOCIATION OF IMMUNOLOGISTS

OFFICERS

PRESIDENT  
Paul M. Allen

VICE PRESIDENT  
Lewis L. Lanier

SECRETARY-TREASURER  
Steven J. Burakoff

PAST PRESIDENT  
Susan L. Swain

COUNCILLORS

Olivera J. Finn     Arthur Weiss     Betty A. Diamond     Jeffrey A. Frelinger

EXECUTIVE DIRECTOR  
M. Michele Hogan

PUBLICATIONS COMMITTEE

CHAIRPERSON: Judy M. Teale  
Janice S. Blum  
Michael P. Cancro  
Victor H. Engelhard  
Stephen C. Jameson  
Yvonne Paterson  
Arlene H. Sharpe  
Carol F. Webb



THE JOURNAL OF  
IMMUNOLOGY

*Information for Subscribers*

*The Journal of Immunology* was first published in 1916. It is currently published twice per month by The American Association of Immunologists, Inc.

**Annual Subscription Rates:** U.S.A. AND POSSESSIONS: personal, \$370; institutional, \$730–\$1,015 (depending on number of faculty and students); single copy, \$46. OUTSIDE U.S.A. (including Canada): personal, \$530; institutional, \$890–\$1,175 (depending on number of faculty and students); single copy, \$53. Institutional (multiple reader) rate applies to libraries, schools, hospitals, clinics, group practices, and federal, commercial, and private institutions and organizations. **A special rate is available to members of The American Association of Immunologists, Inc. (AAI) (regular, student, and trainee members). Information on membership may be obtained from the AAI office, Bethesda, MD.** AAI member subscriptions are included in the membership dues and are handled by The American Association of Immunologists, Inc., 9650 Rockville Pike, Bethesda, MD 20814-3998. All other subscriptions should be sent to *The Journal of Immunology*, Room L-2407-A, 9650 Rockville Pike, Bethesda, MD 20814-3998.

**Change of Address:** AAI member subscribers must notify AAI 60 days in advance. Non-member subscribers must notify *The Journal of Immunology* 60 days in advance of their changes. AAI is not responsible for undeliverable issues. Duplicates can be obtained, if available, from *The Journal of Immunology* at the regular price of single issues.

**New Subscriptions and Renewals:** New subscriptions and renewals begin January 1, 2006, and expire one year later.

**AAI Member Subscribers:** For questions regarding receipt of *The Journal of Immunology* as part of your membership, please contact: AAI Membership Office, 9650 Rockville Pike, Bethesda, MD 20814-3998; phone 301-634-7195; fax 301-634-7733; email: members@aai.org.

**Microfilm:** For availability, contact: *The Journal of Immunology*, 9650 Rockville Pike, Bethesda, MD 20814-3998.

**Reprints:** Reprints of individual articles are available only from authors.

CADMUS PROFESSIONAL COMMUNICATIONS, INC.

LINTHICUM, MARYLAND 21090 U.S.A.