

PNAS (ISSN-0027-8424) is published weekly in print by the National Academy of Sciences.

Correspondence: PNAS, 500 Fifth Street, NW, NAS 340, Washington, DC 20001 USA or 2101 Constitution Avenue, NW, NAS 340, Washington, DC 20418 USA (for courier or express mail). E-mail: PNAS@nas.edu.

Information for Authors: Information for Authors and the Editorial Board listing by discipline are available at www.pnas.org.

Copyright: Volumes 90–102, copyright © 1993–2005 by the National Academy of Sciences of the United States of America, all rights reserved. Volumes 1–89, copyright as a collective work only; author(s) retains copyright to individual articles.

Requests for Permission: See www.pnas.org/misc/rightperm.shtml for details. Address requests to reproduce material published in Volumes 1–89 to the original author(s); e-mail other requests to PNASpermissions@nas.edu, fax 1-202-334-2739, or PNAS Permissions Editor, 500 Fifth Street, NW, NAS 340, Washington, DC 20001 USA. Please cite the exact material to be reprinted and state specifically where it will be used. **Photocopies:** PNAS is registered with the Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923 USA, fax 1-978-750-4470, or www.copyright.com. Authorization to photocopy items for the internal or personal use of specific clients is granted by the National Academy of Sciences provided that the proper fee is paid directly to CCC. **Microforms:** Contact UMI at www.umi.com or P.O. Box 1346, Ann Arbor, MI 48106-1346 USA. This journal is printed on acid-free paper effective with Volume 84, Issue 1.

Advertising: Sarah Frances Scarborough, PNAS Advertising Sales, 500 Fifth Street, NW, NAS 340, Washington, DC 20001 USA. Phone 1-202-334-2348, fax 1-202-334-1346, e-mail sscarborough@nas.edu.

Subscriptions: Address correspondence to: PNAS, % AIP, P.O. Box 50324, St. Louis, MO 63150-3284 USA. For subscription help, e-mail subs@aip.org, phone 1-516-576-2270, or visit www.pnas.org. Subscriptions are entered on a calendar-year basis. The 2006 rates for print are as follows—in the U.S.: personal, \$290; institutional, \$1,510—U.S. by First Class at a surcharge of \$160—elsewhere (institutional includes expedited delivery): personal, \$455; institutional, \$1,865—elsewhere by expedited delivery at a surcharge of \$355. **Exclusive Agent for Subscribers in Japan:** USACO Corporation, 17-12 Higashi-Azabu, 2-Chome, Minato-ku, Tokyo 106-0044, Japan. Phone 81 3 3505 3256, fax 81 3 3505 6282, e-mail agent@usaco.co.jp. **Change of Address:** Notify the Circulation Office 6 weeks in advance and list the old and new addresses. **Claims:** Requests for replacement copies will not be honored more than 60 days after the issue date for domestic subscribers and not more than 90 days after the issue date for foreign subscribers. Claims will not be honored for more than 2 issues per calendar year for the same subscriber. **Single Copies:** \$40 per issue in the U.S., \$50 elsewhere. **Canadian GST:** Registration Number R-133130880.

Postmaster: Send address changes to PNAS, % AIP, P.O. Box 503284, St. Louis, MO 63150-3284 USA. Periodicals postage paid at Washington, DC, and additional mailing offices.

PNAS is available online at www.pnas.org.
PRINTED IN THE USA

President of the Academy

Ralph J. Cicerone

Editor-in-Chief

Nicholas R. Cozzarelli

Senior Editor

Solomon H. Snyder

Associate Editors

William C. Clark

Alan Fersht

Jack Halpern

Jeremy Nathans

Editorial Board

Susan G. Amara

Hans C. Andersen

Kathryn V. Anderson

Francisco J. Ayala

Linda M. Bartoshuk

Roger N. Beachy

Barry J. Beaty

Michael L. Bender

Stephen J. Benkovic

May R. Berenbaum

Bruce J. Berne

Barry R. Bloom

David Botstein

Patrick O. Brown

Charles R. Cantor

Stephen R. Carpenter

Maarten J. Chrispeels

Thomas W. Cline

Enrico Coen

John M. Coffin

Stanley N. Cohen

Peter Cresswell

James E. Dahlberg

Partha Sarathi Dasgupta

Eric H. Davidson

Pietro V. De Camilli

Francisco de la Cruz

Charles A. Dinarello

W. Ford Doolittle

Charles T. Esmon

Douglas T. Fearon

Christopher B. Field

L. B. Freund

Fred H. Gage

Joseph L. Goldstein

Shafira Goldwasser

Harry B. Gray

Philip P. Green

E. Peter Greenberg

Diane E. Griffin

Mark T. Groudine

Jeffrey C. Hall

Philip C. Hanawalt

Susan Hanson

Robert Haselkorn

Peter M. Howley

Richard L. Huganir

Tony Hunter

Vernon Martin Ingram

L. L. Iversen

Rudolf Jaenisch

Ronald W. Jones

David Julius

Richard V. Kadison

Robert W. Kates

James P. Kennett

Robion C. Kirby

Alexander M. Klibanov

Edward D. Korn

Robert A. Lamb

Ramon Latorre

N. M. Le Douarin

Robert J. Lefkowitz

Michael Levitt

Steven E. Lindow

George H. Lorimer

Philip W. Majerus

Tak Wah Mak

Geoffrey W. Marcy

Paul C. Martin

Joan Massagué

Pamela A. Matson

Stephen L. Mayo

John J. Mekalanos

Barbara J. Meyer

Kiyoshi Mizuuchi

Paul L. Modrich

Salvador Moncada

Peter B. Moore

Nancy A. Moran

Newton E. Morton

Bernard Moss

Shigetada Nakanishi

Masatoshi Nei

Tomoko Ohta

Eric N. Olson

Gordon H. Orians

Elinor Ostrom

Peter Palese

Richard D. Palmiter

William E. Paul

Stanley B. Prusiner

Dale Purves

Charles M. Radding

Marcus E. Raichle

Tom A. Rapoport

Douglas C. Rees

Jeffrey W. Roberts

R. Michael Roberts

David D. Sabatini

Jeremy A. Sabloff

Hans Joachim Schellnhuber

Michael Sela

Obaid Siddiqi

David O. Siegmund

William S. Sly

Edward E. Smith

Ralph M. Steinman

Charles F. Stevens

Peter M. Howley

Joseph S. Takahashi

Hans Thoenen

Janet Thornton

Robert Tjian

Barry M. Trost

Nicholas J. Turro

Inder M. Verma

Peter K. Vogt

Kenneth W. Wachter

Peter Walter

Michael S. Waterman

Susan R. Wessler

Sue H. Wickner

William T. Wickner

Ryuzo Yanagimachi

George D. Yancopoulos

Publisher

Kenneth R. Fulton

Executive Editor

Diane M. Sullenberger

Managing Editor

Daniel H. Salsbury

Editorial Staff

James B. Allison

Josiah W. Armour

Michael Campbell

Heather A. Ehlers

Carolyn Elliott

Benjamin E. Ellis

Cassandra Foster

Arijit Guha

Renita M. Johnson

Elise Laffman

Jaime Lees

Leslie Malone

Michael C. Mullins

Tom Myers

Evan Redmon

Allison Ross

Yenu Wodajo

Production, Marketing, and Licensing Manager

George Kendall

Production Staff

Barbara A. Bacon

Timothy Bauer

Anne C. Field

Tiffany A. Miller

Finance Manager

Simone Marshall-Campbell

Business Staff

Andrew Huff

LaTarrea S. Jackson

Julia A. Little

Sarah Frances Scarborough

Media Staff

Leikny V. Johnson

Regina Nuzzo

Oliver J. Yun

Nick Zagorski