

1200 New York Avenue, NW
 Washington, DC 20005

Editorial: 202-326-6550, FAX 202-289-7562
 News: 202-326-6591, FAX 202-371-9227

Bateman House, 82-88 Hills Road
 Cambridge, UK CB2 1LQ

+44 (0) 1223 326500, FAX +44 (0) 1223 326501

SUBSCRIPTION SERVICES For change of address, missing issues, new orders and renewals, and payment questions: 866-434-AAAS (2227) or 202-326-6417, FAX 202-842-1065. Mailing addresses: AAAS, P.O. Box 96178, Washington, DC 20090-6178 or AAAS Member Services, 1200 New York Avenue, NW, Washington, DC 20005

INSTITUTIONAL SITE LICENSES please call 202-326-6755 for any questions or information

REPRINTS: Author Inquiries 800-635-7181

Commercial Inquiries 803-359-4578

PERMISSIONS 202-326-6765, permissions@aaas.org

MEMBER BENEFITS AAAS Travels: Betchart Expeditions 800-252-4910; Apple Store www.store.apple.com/us/go/epstore/aaas; NASA Federal, 1-888-NASA-FCU (1-888-627-2328) or www.nasafcu.com; Cold Spring Harbor Laboratory Press Publications www.cshlpress.com/affiliates/aaas.htm; GEICO Auto Insurance www.geico.com/landingpage/go51.htm?logo=17624; Hertz 800-654-2200 CDP#343457; Office Depot https://bsd.officepoint.com/portalLogin.do; Seabury & Smith Life Insurance 800-424-9883; Subaru VIP Program 202-326-6417; VIP Moving Services www.vipmoving.com/domestic/index.html; Other Benefits: AAAS Member Services 202-326-6417 or www.aaasmember.org.

science_editors@aaas.org (for general editorial queries)

science_letters@aaas.org (for queries about letters)

science_reviews@aaas.org (for returning manuscript reviews)

science_bookrevs@aaas.org (for book review queries)

Published by the American Association for the Advancement of Science (AAAS). *Science* serves its readers as a forum for the presentation and discussion of important issues related to the advancement of science, including the presentation of minority or conflicting points of view, rather than by publishing only material on which a consensus has been reached. Accordingly, all articles published in *Science*—including editorials, news and comment, and book reviews—are signed and reflect the individual views of the authors and not official points of view adopted by AAAS or the institutions with which the authors are affiliated.

AAAS was founded in 1848 and incorporated in 1874. Its mission is to advance science, engineering, and innovation throughout the world for the benefit of all people. The goals of the association are to: enhance communication among scientists, engineers, and the public; promote and defend the integrity of science and its use; strengthen support for the science and technology enterprise; provide a voice for science on societal issues; promote the responsible use of science in public policy; strengthen and diversify the science and technology workforce; foster education in science and technology for everyone; increase public engagement with science and technology; and advance international cooperation in science.

INFORMATION FOR AUTHORS

See pages 716 and 717 of the 8 February 2013 issue or access www.sciencemag.org/about/authors

SENIOR EDITORIAL BOARD

A. Paul Alivisatos, Lawrence Berkeley Nat'l. Laboratory
 Ernst Fehr, Univ. of Zurich
 Michael S. Turner, University of Chicago

BOARD OF REVIEWING EDITORS

Adriano Aguzzi, Univ. Hospital Zürich
 Takuzo Aida, Univ. of Tokyo
 Leslie Aiello, Wenner-Gren Foundation
 Sonia Altizer, Univ. of Georgia
 Virginia Armbrust, Univ. of Washington
 Sebastian Amigorena, Institut Curie
 Angelika Amann, MIT
 Kathryn Anderson, Memorial Sloan-Kettering Cancer Center
 Siv G. E. Andersson, Uppsala Univ.
 Peter Andolfatto, Princeton Univ.
 Meinrat O. Andreae, Max Planck Inst., Mainz
 Paola Arlotta, Harvard Univ.
 Johan Auwerx, EPFL
 David Awschalom, Univ. of California Santa Barbara
 Ben Barres, Stanford Medical School
 Jordi Bascompte, Estación Biológica de Doñana, CSIC
 Facundo Batista, London Research Inst.
 Ray H. Baughman, Univ. of Texas, Dallas
 David Baum, Univ. of Wisconsin
 Mark Bear, Massachusetts Inst. of Technology
 Yasmine Belkaid, NIAID, NIH
 Phyllis Beney, Duke Univ.
 Stephen J. Benkovic, Penn State Univ.
 Christophe Bernard, Aix-Marseille Univ.
 Gregory C. Berzosa, Stanford Univ.
 Gabriele Bergers, Univ. of California, San Francisco
 Peer Bork, EMBL
 Bernard Bourdon, Ecole Normale Supérieure de Lyon
 Chris Bowler, Ecole Normale Supérieure
 Ian Boyd, Univ. of St. Andrews
 Christian Büchel, Universitätsklinikum Hamburg-Eppendorf
 Joseph A. Burns, Cornell Univ.
 William P. Butz, Population Reference Bureau
 Gyorgy Buzsáki, New York Univ., School of Medicine
 Mats Carlsson, Univ. of Oslo
 Mildred Cho, Stanford Univ.
 David Clapham, Children's Hospital, Boston
 David Clary, Univ. of Oxford
 Jonathan D. Cohen, Princeton Univ.
 Robert Cook-Deegan, Duke Univ.
 James Collins, Boston Univ.
 Alan Cowman, Walter & Eliza Hall Inst.
 Robert H. Crabtree, Yale Univ.
 Wolfgang Cramer, Mediterranean Inst. of Biodiversity and Ecology
 Jeff L. Dangl, Univ. of North Carolina
 Tom Daniel, Univ. of Washington
 Frans de Waal, Emory Univ.
 Stanislas Dehaene, Collège de France

Robert Desimone, MIT
 Claude Desplan, New York Univ.
 Ap Dijksterhuis, Radboud Univ. of Nijmegen
 Dennis Discher, Univ. of Pennsylvania
 Gerald W. Dorn II, Washington Univ. School of Medicine
 Jennifer A. Douha, Univ. of California, Berkeley
 Julian Downward, Cancer Research UK
 Bruce Dunn, Univ. of California, Los Angeles
 Christopher Dye, WHO
 Todd Ehlers, University of Tuebingen
 David Ehrhart, Carnegie Inst. of Washington
 Tim Elston, Univ. of North Carolina at Chapel Hill
 Gerhard Ertl, Fritz-Haber-Institut, Berlin
 Barry Everitt, Univ. of Cambridge
 Paul G. Falkowski, Rutgers Univ.
 Ernst Fehr, Univ. of Zurich
 Tom Fenchel, Univ. of Copenhagen
 Michael Feuer, The George Washington Univ.
 Alain Fischer, INSERM
 Susan Fliske, Princeton Univ.
 Anne C. Ferguson-Smith, Univ. of Cambridge
 Peter Fratzl, Max Planck Inst.
 Elaine Fuchs, Rockefeller Univ.
 Wulffram Gerstner, EPFL Lausanne
 Daniel Geschwind, UCLA
 Andrew Gewirth, Univ. of Illinois
 Karl-Heinz Glassmeier, TU Braunschweig
 Elizabeth Grove, Univ. of Chicago
 Kip Guy, St. Jude's Children's Research Hospital
 Takelip Ha, Univ. of Illinois at Urbana-Champaign
 Christian Haass, Ludwig Maximilians Univ.
 Steven Hahn, Fred Hutchinson Cancer Research Center
 Gregory J. Hannon, Cold Spring Harbor Lab.
 Martin Heimann, Max Planck Inst., Jena
 Yla Helariutta, Univ. of Finland
 Isaac Held, NOAA
 James A. Hendler, Rensselaer Polytechnic Inst.
 Janet G. Hering, Swiss Fed. Inst. of Aquatic Science & Technology
 Ray Hilborn, Univ. of Washington
 Michael E. Himmel, National Renewable Energy Lab.
 Kai-Uwe Hinrichs, Univ. of Bremen
 Kei Hirose, Tokyo Inst. of Technology
 David Hodell, Univ. of Cambridge
 David Holden, Imperial College
 Lora Hooper, UT Southwestern Medical Ctr at Dallas
 Jeffrey A. Hubbell, EPFL Lausanne
 Thomas Hudson, Ontario Inst. for Cancer Research
 Raymond Huey, Univ. of Washington
 Steven Jacobsen, Univ. of California, Los Angeles
 Kai Johnsson, EPFL Lausanne
 Peter Jonas, Inst. of Science & Technology (IST) Austria
 Matt Kaeblerstein, Univ. of Washington
 Tillman Kaelin Jr., Dana-Farber Cancer Inst.
 Daniel Kahne, Harvard Univ.

Daniel Kammen, Univ. of California, Berkeley
 Joel Kingsolver, Univ. of North Carolina at Chapel Hill
 Robert Kingston, Harvard Medical School
 Roberto Kolter, Harvard Univ.
 Alberto R. Kornblith, Univ. of Buenos Aires
 Leonid Kruglyak, Princeton Univ.
 Thomas Lanzer, Univ. of Cologne
 Mitchell A. Lazar, Univ. of Pennsylvania
 David Lazer, Harvard Univ.
 Virginia Lee, Univ. of Pennsylvania
 Stanley Lemon, Univ. of North Carolina at Chapel Hill
 Ottoline Leyser, Cambridge Univ.
 Marcia C. Linn, Univ. of California, Berkeley
 Jianguo Liu, Michigan State Univ.
 Luis Liz-Marzan, CIC bioMaGUNE
 Jonathan Losos, Harvard Univ.
 Ke Lu, Chinese Acad. of Sciences
 Christian Lüscher, Univ. of Geneva
 Laura Machesky, CRUK Beatson Inst. for Cancer Research
 Anne Magurran, Univ. of St. Andrews
 Oscar Manríquez, Univ. Miguel Hernández
 Charles Marshall, Univ. of California, Berkeley
 Chris Marziani, USC & Univ. Miguel Hernández
 Thomas Murray, The Hastings Center
 Yasushi Miyashita, Univ. of Tokyo
 Richard Morris, Univ. of Edinburgh
 Edward Morse, Norwegian Univ. of Science and Technology
 Sean Murray, MRC Lab. of Molecular Biology
 Thomas Murray, The Hastings Center
 Naoto Nagao, Univ. of Tokyo
 James Nelson, Stanford Univ. School of Med.
 Daniel Neumark, Univ. of California, Berkeley
 Stuart Newman, New York Medical College
 Timothy W. Nilsen, Case Western Reserve Univ.
 Pär Nordlund, Karolinska Inst.
 Helga Nowotny, European Research Advisory Board
 Luke O'Neill, Trinity College, Dublin
 Harry Orr, Univ. of Minnesota
 N. Phuan Ong, Princeton Univ.
 Joe Orenstein, Univ. of California, Berkeley & Lawrence Berkeley National Lab.
 Harry Orr, Univ. of Minnesota
 Andrew Oswald, Univ. of Warwick
 Steve Palumbi, Stanford Univ.
 Jane Parker, Max-Planck Inst. at Plant Breeding Research
 Donald R. Paul, Univ. of Texas at Austin
 P. David Pearson, Univ. of California, Berkeley
 John H. J. Petrini, Memorial Sloan-Kettering Cancer Center
 Simon Phillipot, Univ. of Florida
 Joshua Plotkin, Univ. of Pennsylvania
 Philippe Poulin, CNRS
 Colin Renfrew, Univ. of Cambridge
 Trevor Robbins, Univ. of Cambridge

FULFILLMENT SYSTEMS AND OPERATIONS (membership@aaas.org); **CUSTOMER SERVICE SUPERVISOR** Pat Butler; **SPECIALISTS** LaToya Casteel, Michelle Oforidire, April Marshall; **MANAGER, DATA ENTRY** Mickie Napoleoni; **DATA ENTRY SPECIALISTS** JJ Regan, Jaimee Wise, Fiona Giblin
BUSINESS OPERATIONS AND ADMINISTRATION Director Deborah Rivera-Fuenhuetel; **BUSINESS SYSTEMS AND FINANCIAL ANALYSIS** Director Randy Yi; **MANAGER OF FULFILLMENT SYSTEMS** Neal Hawkins; **SYSTEMS ANALYST** Nicole Mehmedovich; **MANAGER, BUSINESS ANALYSIS** Eric Knott; **MANAGER, BUSINESS OPERATIONS** Jessica Tierney; **BUSINESS ANALYSTS** Cory Lipman, Cooper Tilton, Celeste Troxler; **FINANCIAL ANALYST** Jeremy Clay; **RIGHTS AND PERMISSIONS:** ASSISTANT DIRECTOR Emilie David; ASSOCIATE Elizabeth Sandler; **MARKETING DIRECTOR** Ian King; **MARKETING MANAGERS** Alison Chandler, Julianne Wielga, Justin Sawyers; **MARKETING ASSOCIATES** Mary Ellen Crowley, Elizabeth Sattler, Rebecca Rifkin; **SENIOR MARKETING EXECUTIVE** Jennifer Reeves; **DIRECTOR, SITE LICENSING** Tom Ryan; **DIRECTOR, CORPORATE RELATIONS** Eileen Bernadette Moran; **SENIOR PUBLISHER RELATIONS SPECIALIST** Kiki Forsythe; **PUBLISHER RELATIONS MANAGER** Catherine Holland; **PUBLISHER RELATIONS, EASTERN REGION** Keith Layson; **PUBLISHER RELATIONS, WESTERN REGION** Ryan Rexroth; **CUSTOMER RELATIONS MANAGER** Iquo Edim; **CUSTOMER RELATIONS ANALYSTS** Simon Chong, Lana Guz; **ASSOCIATE DIRECTOR, MARKETING** Christina Schlecht; **MARKETING ASSOCIATES** Paulina Curto, Mitchell Edmund; **ELECTRONIC MEDIA** DIRECTOR Lizbeth Harman; **ASSISTANT MANAGER** Lisa Stanford; **PRODUCTION SPECIALISTS** Antoinette Hodal, Nichele Johnston, Lori Murphy, Kimberly Oster; **WEB AND NEW MEDIA:** SENIOR PROJECT MANAGER Trista Smith, PROJECT LEADER Luke Johnson COMPUTER SPECIALISTS Walter Jones, Kai Zhang, WEB DEVELOPER Chris Coleman; PROGRAM DIRECTOR, AAAS MEMBER CENTRAL Peggy Mihelich
DIRECTOR, GLOBAL COLLABORATION, CUSTOM PUBLICATIONS, ADVERTISING Bill Moran
EDITOR, CUSTOM PUBLISHING Sean Sanders: 202-326-6430
ASSISTANT EDITOR, CUSTOM PUBLISHING Tianna Hicklin 202-326-6463
SPONSORED CONTENT SPECIALIST Candice Nulsen 202-256-1528
ASSOCIATE DIRECTOR, COLLABORATION, CUSTOM PUBLICATIONS/CHINA/TAIWAN/KOREA/ SINGAPORE Ruolei Wu +86-1367-101-5294
PRODUCT (science_advertising@aaas.org); **MIDWEST** Rick Bongiovanni: 330-405-7080, FAX 330-405-7081; **EAST COAST/E. CANADA** Laurie Faraday: 508-747-9395, FAX 617-507-8189; **WEST COAST/W. CANADA** Yvonne Stickard: 415-931-9782, FAX 415-250-6940; **UK/EUROPE/ASIA** Roger Gonçalves: TEL/ FAX +41 43 243 1358; **JAPAN, MAKIKO HARA:** +81 (0) 3 6802 4616, FAX +81 (0) 3 6802 4615; ads@sciencemag.jp; **CHINA/TAIWAN** Ruolei Wu: +86 1367 1015 294 ruw@aaas.org
WORLDWIDE ASSOCIATE DIRECTOR OF SCIENCE CAREERS Tracy Holmes +44 (0) 1223 326525, FAX +44 (0) 1223 326532
CLASSIFIED (advertise@sciencemag.org); **U.S./CANADA/SOUTH AMERICA** Tina Burks: 202-326-6577; **U.S. CORPORATE** Candice Nulsen 202-256-1528; **SALES ADMINISTRATOR** Marci Gallun; **EUROPE/ROW** Sales Axel Gesatzki; **SALES ASSISTANT** Kelly Grace; **JAPAN** Yuri Kobayashi +81 (0)90-9110-1719; careers@sciencemag.jp; **CHINA/TAIWAN** Ruolei Wu: +86 1367 1015 294 ruw@aaas.org; **ADVERTISING SUPPORT MANAGER** Karen Foote: 202-326-6740; **ADVERTISING PRODUCTION OPERATIONS MANAGER** Deborah Tompkins; **SENIOR PRODUCTION SPECIALIST/GRAPHIC DESIGNER** Amy Hardcastle; **PRODUCTION SPECIALIST** Yuse Jajimimuhip; **SENIOR TRAFFIC ASSOCIATE** Christine Hall; **SALES COORDINATOR** Shirley Young; **MARKETING MANAGER** Allison Pritchard; **MARKETING ASSOCIATE** Aimee Aponte
AAAS BOARD OF DIRECTORS RETIRING PRESIDENT, CHAIR William H. Press; PRESIDENT Phillip A. Sharp; PRESIDENT-ELECT Gerald R. Fink; TREASURER David Evans Shaw; CHIEF EXECUTIVE OFFICER Alan I. Leshner; BOARD BONNIE L. BASSLER, MAY R. BERENBAUM, CLAIRE M. FRASER, ELIZABETH LOFTUS, STEPHEN L. MAYO, RAYMOND ORBACH, SUE V. ROSSER, Inder M. Verma



ADVANCING SCIENCE. SERVING SOCIETY

Jim Roberts, Fred Hutchinson Cancer Research Ctr.
Barbara A. Romanowicz, Univ. of California, Berkeley
Jens Rostrup-Nielsen, Haldor Topsøe
Mike Ryan, Univ. of Texas, Austin
Shimon Sakaguchi, Kyoto Univ.
Miquel Salmeron, Lawrence Berkeley National Lab
Jürgen Sandkühler, Med. Univ. of Vienna
Alexander Schier, Harvard Univ.
Randy Seeley, Univ. of Cincinnati
Vladimir Shalaev, Purdue Univ.
Joseph Shatz, Institut d'Astrophysique de Paris
Denis Simon, Arizona State Univ.
Alison Smith, John Innes Centre
Davor Solter, Inst. of Medical Biology, Singapore
Peter Solter, Harvard Medical School
John Speakman, Univ. of Aberdeen
Allan C. Spradling, Carnegie Institution of Washington
Jonathan Srenth, Garvan Inst. of Medical Research
Eric Steig, Univ. of Washington
Paula Steinhilber, Georgia State Univ. and National Bureau of Economic Research
Elveth Stern, ETH Zürich
V. S. Subrahmanian, Univ. of Maryland
Ira Tabas, Columbia Univ.
Yoshiko Takahashi, Ohio University
Sarah Teichmann, Cambridge Univ.
John Thomas, North Carolina State Univ.
Christopher Tyler-Smith, The Wellcome Trust Sanger Inst.
Herbert Virgin, Washington Univ.
Bert Vogelstein, Johns Hopkins Univ.
Cynthia Volkert, Univ. of Göttingen
Douglas D. Walker, Harvard Medical School
Bruce Wallace, Dalhousie Univ.
Ian Walmsley, Univ. of Oxford
David A. Wardle, Swedish Univ. of Agric Sciences
David Waxman, Fudan Univ.
Jonathan Weissman, Univ. of California, San Francisco
Kathy Willis, Oxford Univ.
Tan A. Wilson, The Scripps Res. Inst.
Timothy D. Wilson, Univ. of Virginia
Rosemary Wyse, Johns Hopkins Univ.
Jan Zaenen, Leiden Univ.
Kenneth Zaret, Univ. of Penn. School of Medicine
Jonathan Zehr, Univ. of California, Santa Cruz
Mark Zuber, MIT

BOOK REVIEW BOARD

John Aldrich, Duke Univ.
 David Bloom, Harvard Univ.
 Angela Creager, Princeton Univ.
 Richard Swedner, Univ. of Chicago
 Ed Wasserman, DuPont
 Lewis Wolpert, Univ. College London