

**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/oppstore/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.officedepot.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 www.sciencemag.org/about/authors

NEWS DEPUTY NEWS EDITORS Robert Coontz, Elizabeth Colutta, David Grimm (Online), Eliot Marshall, Jeffrey Mervis, Leslie Roberts, Richard Stone, John Travis; **CONTRIBUTING EDITOR** Polly Shulman; **NEWS WRITERS** Yudhijit Bhattacharjee, Adrian Cho, Jennifer Couzin-Frankel, Carolyn Gradling, Jocelyn Kaiser, Richard A. Kerr, David Malakoff, Elizabeth Pennisi, Robert F. Service (Pacific NW), Erik Stokstad, Emily Underwood; **WEB DEVELOPER** Daniel Berger; **SOCIAL MEDIA STRATEGIST** Meghna Schachdev; **INTERNS** Kelly Servick, Nisha Giridharan, Senah Yeboah-Sampong, Rachel Walther; **CONTRIBUTING CORRESPONDENTS** John Bohannon, Jon Cohen (San Diego, CA), Ann Gibbons, Sam Kean, Eli Kintisch, Andrew Lawler, Mitch Leslie, Charles C. Mann, Virginia Morell; **COPY EDITOR** Kara Estelle; **ADMINISTRATIVE SUPPORT** Scherraine Mack; **BUREAU SAN DIEGO, CA:** 760-942-3252, FAX 760-942-4979; **Pacific Northwest:** 503-963-1940
PRODUCTION DIRECTOR Wendy K. Shank; **ASSISTANT MANAGER** Rebecca Doshi; **SENIOR SPECIALISTS** Steve Forrester, Anthony Rosen; **SPECIALIST** Jacob Hedrick
PREFLIGHT DIRECTOR David M. Tompkins; **MANAGER** Marcus Spiegler; **SPECIALISTS** Jason Hillman, Tara Kelly
ART DIRECTOR Yael Fitzpatrick; **ASSOCIATE ART DIRECTOR** Laura Creveling; **SENIOR ILLUSTRATORS** Chris Bickel, Katharine Sutliff; **ILLUSTRATOR** Valerie Altounian; **SENIOR ART ASSOCIATES** Holly Bishop, Preston Huey; **ART ASSOCIATES** Kay Engman, Garvin Grullón, Chrystal Smith; **PHOTO EDITOR** Leslie Blizard

SCIENCE INTERNATIONAL
EUROPE (science@science-int.co.uk) **EDITORIAL:** INTERNATIONAL MANAGING EDITOR Andrew M. Suggden; **EDITOR** EDITOR/COMMENTARY Julia Fahrenkamp-Uppenbrink; **SENIOR EDITORS** Caroline Ash, Stella M. Hurlley, Ian S. Osborne, Peter Stern; **ASSOCIATE EDITOR** Maria Cruz; **CONTRIBUTING EDITOR** Helen Pickersgill; **EDITORIAL SUPPORT** Rachel Roberts, Alice Whaley; **ADMINISTRATIVE SUPPORT** Alex Brown, Janet Clements, Joan Cuthbert; **NEWS: DEPUTY NEWS EDITOR, U.K.** Daniel Clery; **CONTRIBUTING EDITOR, EUROPE** Martin Esmerink; **CONTRIBUTING CORRESPONDENTS** Michael Balter (Paris), Kai Kupferschmid (Berlin), Gretchen Vogel (Berlin)

ASIA Japan Office: Asca Corporation, Tomoko Furusawa, Rustic Bldg. 7F, 77 Tenjin-cho, Shinjuku-ku, Tokyo 162-0808, Japan; +81 3 6802 4616, FAX +81 3 6802 4615, inquiry@sciencemag.jp; **CONTRIBUTING EDITOR, ASIA** Maria Hvestendahl [China: mvhstent@aaas.org]; **CONTRIBUTING CORRESPONDENTS** Dennis Morrison [Japan: dnomile@xol.com]; Christina Larson [China: christina.larson@gmail.com]; Hao Xin [China: cindyhao@gmail.com]; Pallava Bagla [South Asia: pallava.bagla@gmail.com]

LATIN AMERICA CONTRIBUTING CORRESPONDENT Lizzie Wade [Mexico City: lizziewade@outlook.com]

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** Lynne Stickrod: 415-931-9782, FAX 415-520-6940; **UK/EUROPE/ASIA** Roger Goncalves: 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 www.aaas.org
WORLDWIDE ASSOCIATE DIRECTOR OF SCIENCE CAREERS Tracy Holmes: +44 (0) 1223 326525, FAX +44 (0) 1223 326532

CLASSIFIED (advertise@sciencereaders.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** Alex Gesatzki, Sarah Lelarge; **SALES ASSISTANT** Kelly Grace; **JAPAN** Yuri Kobayashi +81 (0)90-9110-1719; careerads@sciencemag.jp; **CHINA/TAIWAN** Ruolei Wu: +86 1367 1015 294 www.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 Jajjimmunhui; **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



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, Werner-Gren Foundation
- Sonia Altshuler, Univ. of Georgia
- Virginia Armbrust, Univ. of Washington
- Sebastian Amigorena, Institut Curie
- 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 Auschalom, Univ. of California Santa Barbara
- Ben Barnes, 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
- Philip Benfey, Duke Univ.
- Stephen J. Benkovic, Penn State Univ.
- Christopher 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
- György Buzsáki, New York Univ., School of Medicine
- Mats Carlsson, Univ. of Oslo
- 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 Croneck, Mediterranean Inst. of Biodiversity and Ecology
- Janet Currie, Princeton Univ.
- 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, North Carolina Univ.
- Ap Dijksterhuis, Radboud Univ. of Nijmegen
- Dennis Discher, Univ. of Pennsylvania
- Gerald W. Dorn II, Washington Univ. School of Medicine
- Jennifer A. Doudna, Univ. of California, Berkeley
- Christine Ehlers, Univ. of California, Los Angeles
- Christopher Dye, WHO
- Todd Ehlers, University of Tuebingen
- David Ehrhardt, Carnegie Inst. of Washington
- Tim Elston, Univ. of North Carolina at Chapel Hill
- Stefan Engel, Fritz-Haber-Institut, Berlin
- Barry Everitt, Univ. of Cambridge
- Paul G. Falkowski, Rutgers Univ.
- Ernst Fehr, Univ. of Zurich
- Tom Felchel, Univ. of Copenhagen
- Michael Feeley, The George Washington Univ.
- Alain Fischer, INSERM
- Susan Fiske, Princeton Univ.
- Anne C. Ferguson-Smith, Univ. of Cambridge
- Peter Fratini, Max Planck Inst.
- Elaine Fuchs, Rockefeller Univ.
- Wulfraam Gerstner, EPFL Lausanne
- Daniel Geschwind, UCLA
- Andrew Gewirth, Univ. of Illinois
- Karl Heinz Glassmeier, TU Braunschweig
- Guar Helft, NIDA
- Elizabeth Holmes, Univ. of Chicago
- Kip Guy, St. Jude's Children's Research Hospital
- Taejick Ha, Univ. of Illinois at Urbana-Champaign
- Christina Haass, Ludwig Maximilians Univ.
- Steven Hahn, Fred Hutchinson Cancer Research Center
- Gregory J. Hannon, Cold Spring Harbor Lab.
- Martin Heimann, Max Planck Inst., Jena
- Yka Helariutta, Univ. of Finland
- Isaac Held, NASA
- 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 Holdren, Imperial College
- John 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 Jacobson, Univ. of California, Los Angeles
- Kai Johansson, EPFL Lausanne
- Peter Jonas, Inst. of Science & Technology (IST) Austria
- Matt Kaebertine, Univ. of Washington
- William Kaelin Jr., Dana-Farber Cancer Inst.
- Daniel Kahn, 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 Medical School
- Alberto R. Kornblihtt, Univ. of Buenos Aires
- Leonid Kruglyak, Princeton Univ.
- Thomas Langer, Univ. of Cologne
- Mitchell A. Lazar, Univ. of Pennsylvania
- Christopher Lee, 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 bioGUNE
- 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 Marin, CSIC & Univ. Miguel Hernández
- Charles Marshall, Univ. of California, Berkeley
- Chris Marshall, Inst. of Cancer Research
- Martin M. Matzuk, Baylor College of Medicine
- C. Robertson McClung, Dartmouth College
- Graham Medley, Univ. of Warwick
- Timothy W. Miller, Case Western
- Richard Morris, Univ. of Edinburgh
- Edward Moser, Norwegian Univ. of Science and Technology
- Sean Murray, MRC Lab. of Molecular Biology
- Thomas Murray, The Hastings Center
- Naoto Nagaosa, 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
- Ben Olken, MIT
- Paul Omernik, 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.
- David R. Paul, Univ. of Texas at Austin
- Donald R. Paulson, Univ. of California, Berkeley
- Timothy W. Pettit, Memorial Sloan-Kettering Cancer Center
- Simon Phillipot, Univ. of Florida
- Joshua Plotkin, Univ. of Pennsylvania
- Philippe Poulin, CNRS
- Colin Renfree, Univ. of Cambridge
- Trevor Robbins, Univ. of Cambridge
- 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 Sandkühner, Medical Univ. of Vienna
- Alexander Schier, Harvard Univ.
- Randy Seeley, Univ. of Cincinnati
- Vladimir Shalaev, Purdue Univ.
- Joseph Silk, Institut d'Astrophysique de Paris
- Dennis Sills, Univ. of California, Berkeley
- Alison Smith, Johns Hopkins Center
- Peter Sorger, Harvard Medical School
- John Speakman, Univ. of Aberdeen
- Allan C. Spradling, Carnegie Institution of Washington
- Jonathan Sprent, Garvan Inst. of Medical Research
- Eric Steig, Univ. of Washington
- Molly Stevens, Imperial College London
- Paula Stephan, Georgia State Univ. and National Bureau of Economic Research
- Elisbeth Steig, ETH Zürich
- V. S. Subrahmanian, Univ. of Maryland
- Ira Tabas, Columbia Univ.
- Yoshiko Takahashi, Kyoto 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
- Bruce D. Walker, Harvard Medical School
- Douglas Wallace, Dalhousie Univ.
- Ian Walmsley, Univ. of Oxford
- David A. Wardle, Swedish Inst. of Agric Sciences
- David Waxman, Fudan Univ.
- Jonathan Weissman, Univ. of California, San Francisco
- Kathy Willis, Oxford Univ.
- Ian A. Wilson, The Scripps Res. Inst.
- Timothy D. Wilson, Univ. of Virginia
- Rosemary Wray, Johns Hopkins Univ.
- Jan Zaenen, Leiden Univ.
- Kenneth Zaret, Univ. of Penn. School of Medicine
- Jonathan Zehr, Univ. of California, Santa Cruz
- Len Zou, Children's Hospital Boston
- Maria Zuber, MIT

BOOK REVIEW EDITOR

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