

**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.nasa.fcfcu.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/portal/Login.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](http://www.sciencemag.org/about/authors)

**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*  
**Bruce Dunn**, *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*  
**Gertraud M. Fritz-Haber**, *Institut für Medizinische Biologie, Berlin*  
**Barry Everitt**, *Univ. of Cambridge*  
**Paul G. Falkowski**, *Rutgers Univ.*  
**Ernst Fehr**, *Univ. of Zurich*  
**Peter Fritzel**, *Univ. of Copenhagen*  
**Michael Feuer**, *The George Washington Univ.*  
**Alain Fischer**, *INSERM*  
**Susan Fiske**, *Princeton Univ.*  
**Anne C. Ferguson-Smith**, *Univ. of Cambridge*  
**Peter Fratzl**, *Max Planck Inst.*  
**Elaïne Fuchs**, *Rockefeller Univ.*  
**Wulfram Gerstner**, *EPFL Lausanne*  
**Daniel Geschwind**, *UCLA*  
**Andrew Gewirth**, *Univ. of Illinois*  
**Karl-Heinz Glaesmeier**, *TU Braunschweig*  
**Julia R. Greer**, *Caltech*  
**Elizabeth Grove**, *Univ. of Chicago*  
**Kip Guy**, *St. Jude's Children's Research Hospital*  
**TaeKjip Ha**, *Univ. of Illinois at Urbana-Champaign*  
**Christian Haass**,  *Ludwig Maximilians Univ. München*  
**Steven Hahn**, *Fred Hutchinson Cancer Research Center*  
**Gregory J. Hannon**, *Cold Spring Harbor Lab.*  
**Martin Heimann**, *Max Planck Inst., Jena*  
**Yka Helaranta**, *Univ. of Finland*  
**David Held**, *UCR*  
**James A. Hendler**, *Rensselaer Polytechnic Inst.*  
**Janet G. Hering**, *Swiss Fed. Inst. of Aquatic Science & Technology*  
**Huy 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 Johnson**, *EPFL Lausanne*  
**Peter Jonas**, *Inst. of Science & Technology (IST) Austria*  
**Matt Kaerberlein**, *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*  
**Robert Kolter**, *Harvard Medical School*  
**Alberto R. Kornblüth**, *Univ. of Buenos Aires*  
**Leonid Kruglyak**, *Princeton Univ.*  
**Thomas Lager**, *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 bioGUNE*  
**Jonathan Losos**, *Harvard Univ.*  
**Me 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*  
**Yasushi Miyashita**, *Univ. of Tokyo*  
**Richard Morris**, *Univ. of Edinburgh*  
**Edward Mørse**, *Norwegian Univ. of Science and Technology*  
**Sean Munro**, *MRC Lab. of Molecular Biology*  
**Thomas Murray**, *Cole Western Reserve Univ.*  
**Naoto Nagaoa**, *Univ. of Tokyo*  
**James Nelson**, *Stanford Univ. School of Med.*  
**Daniel Neumark**, *Univ. of California, Berkeley*  
**David Newnam**, *New York Medical College*  
**Timothy Nilsen**, *Cole Western Reserve Univ.*  
**Pär Nordlund**, *Karolinska Inst.*  
**Helga Nowotny**, *European Research Advisory Board*  
**Luke O'Neill**, *Trinity College, Dublin*  
**Ben Oken**, *MIT*  
**Phuan Ong**, *Princeton Univ.*  
**Jon Oreinstein**, *Univ. of California, Berkeley & Lawrence Berkeley National Lab*

**Harry Orr**, *Univ. of Minnesota*  
**David Oswald**, *Univ. of Warwick*  
**Steve Palumbi**, *Stanford Univ.*  
**Jane Parker**, *Max-Planck Inst. of Plant Breeding Research*  
**Donald R. Paul**, *Univ. of Texas at Austin*  
**P. David Pearson**, *Univ. of California, Berkeley*  
**Simon Phillipot**, *Univ. of Florida*  
**Joshua Plotkin**, *Univ. of Pennsylvania*  
**Philippe Poulin**, *CNRS*  
**Colin Renfrew**, *Univ. of Cambridge*  
**Daniel Rosenthal**, *Harvard Univ.*  
**Jim Roberts**, *Fred Hutchinson Cancer Research Ctr.*

**FULFILLMENT SYSTEMS AND OPERATIONS** (membership@aaas.org); **CUSTOMER SERVICE SUPERVISOR** Pat Butler; **SPECIALISTS** LaToya Casteel, Michelle Oforide, April Marshall; **MANAGER, DATA ENTRY** Mickie Napoleoni; **DATA ENTRY SPECIALISTS** JJ Regan, Jaimee Wise, Fiona Giblin

**BUSINESS OPERATIONS AND ADMINISTRATION DIRECTOR** Deborah Rivera-Wienhold; **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 Riffkin; **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** Elizabeth Harman; **ASSISTANT MANAGER** Lisa Stanford; **PRODUCTION SPECIALISTS** Antoinette Hodal, Nichele Johnston, Lori Murphy, Kimberly Oester; **WEB AND NEW MEDIA:** **SENIOR PROJECT MANAGER** Trista Smith, **PROJECT LEADER** Luke Johnson **COMPUTER SPECIALIST** 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 Nelson 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/E. CANADA** Lynne Stickrod: 415-931-9782, FAX 415-520-6940; **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 rwu@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 CANCELS** 202-256-1528; **SALES ADMINISTRATOR** Marci Gallun; **EUROPE/ROW SALES** Axel Gesatzki; **SALES ASSISTANT** Kelly Grace; **JAPAN** Yuri Kobayashi +81 (0)90-9110-1719; **careerads@sciencemag.jp**; **CHINA/TAIWAN** Ruolei Wu: +86 1367 1015 294 rwu@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 Jajimmuhup; **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 MEMBER B. Bassler, M. Berenbaum, Claire M. Fraser, Elizabeth Loftus, Stephen L. Mayo, Raymond Orbach, Sue V. Rosser, Inder M. Verma



**Barbara A. Romanowicz**, *Univ. of California, Berkeley*  
**Jens Rostrup-Nielsen**, *Haldor Topsøe*  
**Mike Ryan**, *Univ. of Texas, Austin*  
**Shimon Sakaguchi**, *Kyoto Univ.*  
**Miguel Salmeron**, *Lawrence Berkeley National Lab*  
**Jürgen Sandkühler**, *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 Simon**, *Arizona State Univ.*  
**Alison Smith**, *John Innes Centre*  
**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*  
**Elsbeth Stern**, *ETH Zurich*  
**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 Volkart**, *Univ. of Göttingen*  
**Bruce D. Walker**, *Harvard Medical School*  
**Douglas Wallace**, *Dalhousie Univ.*  
**Ian Wamlsley**, *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.*  
**Ian A. Wilson**, *The Scripps Res. Inst.*  
**Timothy D. Wilson**, *Univ. of Virginia*  
**Rosemary Wyrwe**, *Johns Hopkins Univ.*  
**Jan Zeman**, *Leiden Univ.*  
**Kenneth Zaret**, *Univ. of Penn. School of Medicine*  
**Jonathan Zehr**, *Univ. of California, Santa Cruz*  
**Den Zon**, *Children's Hospital Boston*  
**Maria Zuber**, *MIT*

### BOOK REVIEW BOARD

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