

SCIENCE

<http://www.aaas.org>

Publisher: Richard S. Nicholson
Editor-in-Chief: Floyd E. Bloom
Editor: Ellis Rubinstein
Managing Editor: Monica M. Bradford
Deputy Editors: Philip H. Abelson (*Engineering and Applied Sciences*); John I. Brauman (*Physical Sciences*); Thomas R. Cech (*Biological Sciences*)

Editorial Staff

Assistant Managing Editor: Dawn McCoy
Senior Editors: Eleanore Butz, R. Brooks Hanson, Pamela J. Hines, Barbara Jasny, Katrina L. Kelner, Paula A. Kiberstis, Linda J. Miller, L. Bryan Ray, Phillip D. Szuromi, David F. Voss
Associate Editors: Gilbert J. Chin, Suki Parks, Linda R. Rowan
Letters: Christine Gilbert, *Editor*; Steven S. Lapham, *Assistant Letters Editor*; Charlene King, *Assistant*
Book Reviews: Katherine Livingston, *Editor*; Jeffrey Hearn, *Editorial Assistant*
Editing: Valerie Jablow, *Supervisor*; Cara Tate, *Senior Copy Editor*; Jeffrey E. Cook, Harry Jach, Erik G. Morris, Christine M. Pearce
Copy Desk: Ellen E. Murphy, *Supervisor*; Sherri Byrand, Joi S. Granger, Daniel T. Helgerman, Beverly Shields, Kameaka Williams, *Assistant*
Editorial Support: Carolyn Kyle, *Editorial Assistant*; Michele Listisard, Diane Long, Patricia M. Moore, Ted Smith, *Manuscript Assistants*
Administrative Support: Sylvia Kihara, Brent Gendleman
Computer Specialist: Roman Frillarte
Telephone: 202-326-6501; **FAX:** 202-289-7562; **TDD:** 202-408-7770

News Staff

News Editor: Colin Norman
Features Editor: Tim Appenzeller
Deputy News Editors: Elizabeth Culotta, Joshua Fischman, Jean Marx, Jeffrey Mervis
News & Comment/Research News Writers: Linda B. Felaco (copy), Constance Holden, Jocelyn Kaiser, Richard A. Kerr, Andrew Lawler, Eliot Marshall, Elizabeth Pennisi, Kimberly Peterson (intern), Robert F. Service
Bureaus: Marcia Barinaga (Berkeley), Jon Cohen (San Diego), James Glanz (Chicago), Dennis Normile (Tokyo), Wade Roush (Boston)
Contributing Correspondents: Barry A. Cipra, Ann Gibbons, Charles C. Mann, Anne Simon Moffat, Virginia Morell, Gary Taubes
Administrative Support: Scherraine Mack, Fannie Groom
Telephone: 202-326-6500; **FAX:** 202-371-9227;
Internet Address: science_news@aaas.org

Art & Production Staff

Production: James Landry, *Director*; Wendy K. Shank, *Manager*; Lizbeth A. Harman, *Assistant Manager*; Jennifer A. Gearhart, Cynthia M. Penny, *Associates*; Leslie Blizard, *Assistant*
Art: Amy Decker Henry, *Director*; C. Faber Smith, *Associate Director*; Katharine Suttiff, *Scientific Illustrator*; Holly Bishop, Elizabeth Carroll, *Graphics Associates*; Preston Morrighan, Patricia M. Riehn, *Graphics Assistants*
Technology Manager: Christopher J. Feldmeier

Science International: Europe Office

Editorial: Richard B. Gallagher, *Office Head and Senior Editor*; Stella M. Hurlley, Julia Uppenbrink, *Associate Editors*; Belinda Holden, *Editorial Associate*
News: Daniel Clery, *Editor*; Nigel Williams, *Correspondent*; Michael Baltzer (*Paris*), Patricia Kahn (*Heidelberg*), Richard Stone (*Russia*), *Contributing Correspondents*
Administrative Support: Janet Mumford; Anna Sewell
Address: 14 George IV Street, Cambridge, UK CB2 1HH
Telephone: (44) 1223-302067; **FAX:** (44) 1223-302068
Internet address: science-int.co.uk

Science Editorial Board

Charles J. Arntzen	F. Clark Howell
David Baltimore	Paul A. Marks
J. Michael Bishop	Yasutomi Nishizuka
William F. Brinkman	Helen M. Ranney
E. Margaret Burbidge	Bengt Samuelsson
Pierre-Gilles de Gennes	Robert M. Solow
Joseph L. Goldstein	Edward C. Stone
Mary L. Good	James D. Watson
Harry B. Gray	Richard N. Zare
John J. Hopfield	

Science's Next Wave

Editor: John Benditt

EDITORIAL

The Activist Scientist

The era of generous and stable federal funding of science, long taken for granted, is over. In order to stave off encroaching and damaging cuts in funding, many science and technology (S&T) leaders have strongly urged us to learn to communicate with the public and become more engaged in the political process. Although the scientific community has by and large realized that business is not as usual, our response has been spotty. We remain reluctant. Yet it is a forgone conclusion that we must become truly engaged with the fundamental issues and the politics of budget allocation. In recent years, professional scientific societies have become more involved in the political process and have had some successes (witness the FY 1996 NIH appropriation for the full year and at a higher level than that for FY 1995), but much remains to be done by scientists as individuals, and we must apply the know-how gained in 1996 to future budget allocations.

In a recent address, Secretary of Health and Human Services Donna Shalala used a telling metaphor that, in my view, constitutes a call for greater intervention by the scientific community. She said that the "activist scientist is something rarer than the spotted owl." Scientists often cite time pressures as the reason for their disengagement as citizens, but that explanation is too simplistic. More likely the problem is rooted in a limited understanding of, and general disaffection with, the political and legislative process, combined with the false perception that such activities are inappropriate for scientists or have no immediate and direct effect on one's own life. In fact, individual activism (such as letter-writing or e-mail campaigns) is not uncommon, even among scientists and academics, if the issue seems to have personal impact and urgency.

Instead of taking a defensive posture, we as independent individuals must wear the "scientist citizen" hat with confidence and purpose. To my own surprise, I have found the role to be both educational and rewarding. As a member of the Board of the Council of Scientific Society Presidents, I have been introduced to science activism. Yes, it takes time and discipline, but knowing that my actions supported my colleagues and, more important, the next generation of scientists has been gratifying. I will continue to wear this hat and encourage all of you to give it a try. The public know that they are the benefactors, but we must reassure them that they also have been and will continue to be the beneficiaries of public investment in S&T. The favorable attitudes of an enthusiastic public will ultimately result in legislative support. It behooves us to rethink the norms of science culture and give, in our own personal ways, a few minutes each week or month to support this enterprise.

In the interests of science, we must accept the necessity of playing by Washington's rules and speaking the Washington language. A two-prong approach is needed. At the "macro" level, we must establish a real relationship with our elected officials. We must let them hear from us on a regular basis, not just at crisis times, and help them to rationalize and articulate economic leadership that results from S&T investment. We must show that we can be an important constituency. Good examples of how one can effectively play in this arena are already emerging: Several professional societies provide "do-it-yourself kits" containing model letters and information about how to get an appointment, whom to talk to, and what questions to ask, along with examples of effective communication that is factual and devoid of rhetoric. Some are going farther than what I suggest here. In a recent commentary in *The Scientist*,* Eugene Garfield advocated "the establishment of a formal lobbying organization." At the "micro" level, each of us must pitch in to create broad enthusiasm through dialogue and help the public to appreciate and acknowledge that a robust S&T enterprise is key to the quality of all our lives. Our best tool is our own deep personal commitment to and excitement about science.

The stakes are high. If not now, when? If not us, who? Clearly, the responsibility is ours alone. If necessity is the mother of invention, and if scientists are unresponsive to professional evolution, then is it not time to invent a new species of scientist? I submit that we need both activist scientists and science activists.

Jaleh Daie

The author is professor of Botany at the University of Wisconsin-Madison; senior science advisor of the University of Wisconsin System; and president of the Association for Women in Science, Washington, DC.

**The Scientist* 10 (no. 4), 10 (1996).

Science

The Activist Scientist

Jaleh Daie

Science **272** (5265), 1081.

DOI: 10.1126/science.272.5265.1081

ARTICLE TOOLS

<http://science.sciencemag.org/content/272/5265/1081>

PERMISSIONS

<http://www.sciencemag.org/help/reprints-and-permissions>

Use of this article is subject to the [Terms of Service](#)

Science (print ISSN 0036-8075; online ISSN 1095-9203) is published by the American Association for the Advancement of Science, 1200 New York Avenue NW, Washington, DC 20005. 2017 © The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works. The title *Science* is a registered trademark of AAAS.