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# EDITORIAL

## Desperately Seeking Friends

WANTED: Reliable, informed friends of science. Must understand importance of science, mathematics, and engineering research and education. Unquestioning willingness to promote investment in scientific discovery. No reciprocal recognition offered. No skeptics need apply.

The knowledge created by U.S. scientists and those they have trained has been the basis for the creation of wealth, in very real ways, for this country and the world. Some economists have estimated that nearly 50% of the growth in the U.S. economy over the past few decades is a direct derivative of the federal investment in research. The United States leads the way in virtually all fields of scientific endeavor and, at least at the moment, we remain the major educational resource for scientists worldwide. Numerous documents and testimony recount the ways in which applications of the knowledge generated have led to products or processes that have transformed our world and created opportunities for the next generation. In short, many would argue that scientists, more than members of any other profession, are creating the future. One would think, then, that scientists would have a lot of friends and feel a sense of public appreciation not enjoyed by many other professions. Yet at scientific meetings these days, there is palpable anxiety about the fact that our friends are few and their loyalty uncertain. Politicians tell us that science has no defined constituency and that scientists and their societies are naïve, self-important, and frequently ineffective—harsh criticisms that most scientists find offensive but have few ways to counter.

This is a tough time for many scientists. The money is getting increasingly tighter, and the nation as a whole shows alarming anti-intellectualism, most notable recently in the revival of efforts to ban the teaching of evolution or to insist that "creation science" be given equal time in grades K–12. Our institutions of higher learning do not insist that undergraduates master the fundamental elements of scientific understanding, and most of the regulations governing the conduct of science are written by legislators who have graduated from law schools that do not require sophistication in scientific or quantitative methodology, even though evidence in many legal cases is now dependent on constantly changing scientific and statistical methodology that is critical to an understanding of comparative risk. Furthermore, the demand for efficiency and accountability in the use of public funds is constantly increasing. It's not hard to understand scientists' growing sense of apprehension and uncertainty.

It's time for us to make new friends. But do we know how? We want people to like us, support us, and understand how dedicated we are. However, we don't want to be told that it is our responsibility to be more civically inclined; to be what Neal Lane, the director of the National Science Foundation, calls "citizen-scientists." We're busy, we claim. Can't someone else do the public outreach? Can't someone else fix our educational system or get the mindless auditors and regulators out of our business? Probably not.

Scientists have enjoyed a long run of public confidence that is still strong (as several recent Research America polls, conducted by Lou Harris, have shown). However, with the end of the Cold War, some of the claim we previously had on the public coffers has eroded, and the fiscal conservatism of the moment is encouraging skepticism about the importance of many kinds of scientific endeavor. It's time to change our ways. An event designed to begin a larger dialogue with a broader set of constituencies will occur in Sacramento, California, on 28 and 29 May 1996. This coalition will bring together, in approximately equal parts, research scientists and administrators from the California research universities and national laboratories; business leaders in evolving high-technology industries; and mayors, local economic officers, and state politicians to talk about how to better understand each other's concerns and priorities and to build critical partnerships for the future. Although meetings between universities and businesses interested in research are common, the inclusion of public-sector interests as equal partners in the discussion is much rarer. This is where some of our friends must be made. It's time to listen and to reciprocate.

M. R. C. Greenwood

The author is currently dean of graduate studies and vice provost of Academic Outreach at the University of California, Davis, and former associate director of science at the Office of Science and Technology Policy. She will become chancellor at the University of California, Santa Cruz, on 1 July 1996.