2/16/2003 AAAS Meeting Denver

## **AAAS 2003**

Award for the Public Understanding of Science + Technology

Thank you very much. Enlightenment is better than ignorance! I am grateful that those who advocate the achievement of science literacy are recognized by the AAAS. On behalf of all those who have worked with me over the years I accept this award and take it to be a <a href="charge">charge</a> to maintain and expand our efforts to recruit and engage fellow scientists, mathematicians and engineers to further raise the level of science literacy.

I am truly grateful for this award, but I am concerned about the wide gap that exists between the science-rich and science-poor sectors in the United States and around the world. Profound advances in science and technology are accompanied by profound ignorance and lack of appreciation of science on the part of the non-scientists and the public at large. I find the rate at which this gap widens on a daily basis to be very alarming and to be detrimental to the advancement of science and to the well-being of society.

Those of us who are in the science-rich sector of society are truly privileged and as such have a major responsibility of communicating our science to all those who are in the science-poor sector. Many others have stated this eloquently and have acted accordingly. Carl Sagan and Stephan Jay Gould whom we miss deeply. Currently Carl Djerassi, Roald Hoffmann and Oliver Sacks are exemplars of what accomplished scientists can do to communicate science.

I make a distinction between scientific literacy and science literacy.

Scientific literacy is what the practitioners of science have—the skills and abilities to pursue research to advance knowledge. Science literacy refers to the appreciation of science without having a detailed understanding of chemistry, physics or technology. We need to attract talented individuals to careers in science and careers of teaching science, but we also need to achieve science literacy. Science literacy is a measure of our values as society and it is the responsibility of those of use who are scientifically literate to help achieve science literacy.

Let me offer an analogy to make this important point about our twin mission of advancing science and achieving science literacy. This

analogy comes from sports, just as we have professional athletes in basketball, football, hockey and so on we also have sports fans. And you know—without those sports fans the entire professional sports enterprise would be nothing. You also know that is not an exaggeration! So what we need are scientists and science fans—and we want those science fans to be engaged—not simply sitting in the stands as passive spectators.

For those who are not sports minded, let me offer another analogy to make this very same point about our twin mission: we need orchestra players and we need audiences that appreciate what the performers are doing.

AAAS is the largest science organization in the world and as such has the largest responsibility for promoting the advancement of science and for serving society. A great deal has been done, but it all pales with the task that is ahead of us. We definitely have the capacity to succeed in achieving science literacy, the question is: do we have the will.

Thank you.