A Strong Partnership Enters a New Global Era

On behalf of the more than 163,000 members of the American Chemical Society (ACS), it is my honor to send greetings to the Chemical Society of Japan (CSJ) on the august occasion of its 125th anniversary. Congratulations to you!

As you meet to celebrate this important occasion, our Society will be preparing for the first of two national meetings this year – one of many activities we have in common with the CSJ. Disseminating research results at meetings and in journals, saluting important work with major awards, reaching out to students and to public audiences, advising our governments, and working with members in active local branches are the backbone of our Society, and yours.

Even more encouraging is our longstanding partnership with you, on so many levels. We have been most gratified to co-sponsor the Pacifichem conference with you and other Pacific Rim chemical societies, bringing the world's attention to the vast scientific resources we share. And of course, we value greatly the contributions your members make to the research findings published in our journals and presented at our meetings – thousands of research papers that demonstrate the value our organizations bring to the world.

Over the last millennium, the image of science and technology has been one associated with individual genius. Galileo with his theories of the solar system ... Newton feeling an apple hit his head and thinking up gravity ... Edison, jumping from the light bulb to the phonograph to motion pictures ... Darwin looking at turtles in the Galapagos. People grow up believing that the history of science is the history of individuals, working alone, defying convention.

Were these caricatures? Of course they were. Edison had teams of researchers and workers in his lab at Menlo Park. And Lindbergh was heavily dependent on the scientists and engineers who had gone before him, designing planes, refining gasoline, developing the parachute, and flares. He was also dependent on financiers. For a long time, it ***was*** possible for great discoveries to be principally the work of one person. Consider our own field: the discovery of oxygen by Joseph Priestley ... Mendeleev's periodic table ... Madame Curie experimenting in her lab with a new substance named radium.

These stories commonly gave generations the idea that science could be exciting. So it's ironic that now — when we have science that would have seemed like fantasy to these chemists — many in the public are hard-pressed to name a single living scientist, let alone a

chemist. The science isn't any less rigorous — or creative. The invention of the computer is no less amazing than that of the telephone.

Our societies have spent much of our past working to change the public's image of our profession. But, looking ahead, we need to change the way they think about how scientists' work is done. I'm a working scientist. I don't need to look at elaborate charts to see the change. All I have to do is go to the lab each day where I'm part of what some call the "second revolution" of modern science — the microelectronics era. The change is simply this: We use an interdisciplinary approach. We work in teams. And, thanks to the Internet, we no longer have to sit at the same workbench to collaborate.

Among scientists, this hasn't gone unnoticed. Fourteen years ago, the National Academy of Sciences put out a report describing the change with precision and balance, and asking how we promote "collaboration between the life sciences and medicine and the physical sciences and engineering."

About a year ago, Rita Colwell, the director of the U.S. National Science Foundation, summarized these changes in science. "First," she said, "scientific and engineering research is now truly a global exercise. Second, science and engineering have changed in ways that make international cooperation essential. Third, we must find new ways for scientists and engineers around the world to work together."

In chemistry, we are most fortunate that, for our two Societies, the "new ways to work together" are already a part of our shared history, and our hopeful future. Just as individual scientists must collaborate across borders and around the world, our Societies must continue to collaborate in ways that advance chemistry for the betterment of the world. I hope by the end of this millennium, our Societies both are known for having shared the success of that collaboration with the public, so that they, too, understand how much we have accomplished together in their behalf.

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