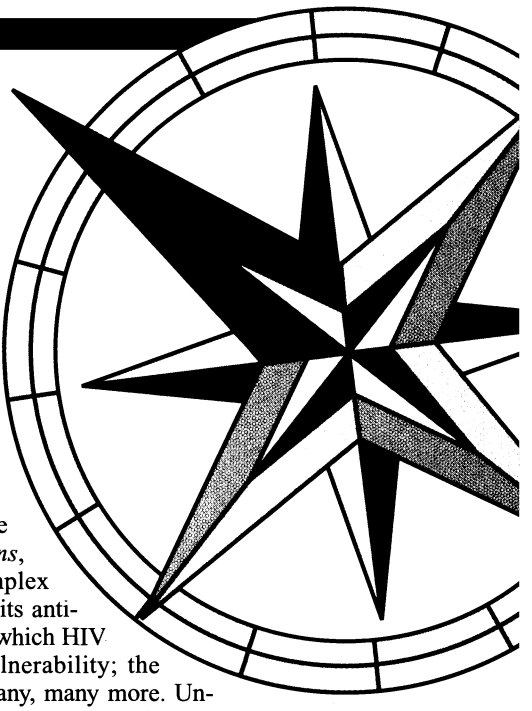

Thanks for the Memories

Floyd E. Bloom

After 5 years in the catbird seat, watching the progression of scientific discoveries move across the desks of our editors and onto our pages, it seems appropriate to reflect on the interesting times through which we have traveled together. As Editor-in-Chief, it was my good fortune to witness truly amazing discoveries and achievements. Among those that remain most intensely etched in my mind are the evidence for possible life on Mars, the Bose-Einstein condensate, the emergence of nanotechnology, the expanding universe, the basis for nearby planetary chaos, and remarkable archaeological insights into human origins. Equally thrilling to recall are the whole bacterial and plant genomes already sequenced, as well as *C. elegans*, *Drosophila*, and soon the human genome; the atomic coordinates of complex molecules such as cytochrome C, erythropoietin, immunoglobulin enfolding its antigens, and the potassium channel; the chemokines and their receptors through which HIV infects; numerous new regulatory peptides and markers of oncogenic vulnerability; the cloning of whole animals; the isolation of adult totipotent stem cells; and many, many more. Unquestionably, the past 5 years are most vividly epitomized by the ascent of the Internet and the significant changes that it is imposing on scholarly publishing, as well as on almost every other aspect of our society. But, like Mark Twain's death, the reports of the impending demise of scientific journals seem greatly exaggerated.

Recent surveys conducted for the American Association for the Advancement of Science indicate that the vast majority of *Science* readers enjoy their print issues for perusal while traveling or relaxing and are resistant to an online-only substitution. Yet a growing fraction of them also want the convenience of the searchable archives and links to other resources provided by *Science* Online. Furthermore, as part of our strategy to present the best in worldwide scientific developments, the digital delivery of *Science* Online has leveled the playing field by providing prompt access to the entire international scientific community. Nearly 75% of our submittals now arrive directly at the special Web site created for the purpose (www.submit2science.org), further accelerating their distribution to reviewers and shortening our time to decide on suitability.

"Drawing knowledge from information remains an overarching goal for *Science*."

Although the Internet has changed many aspects of our operations and our interactions with readers and reviewers, in many essential ways the core principles of our strategies remain unaffected. *Science* strives to remain the leading weekly journal of science, covering the entire gamut of significant new scientific discovery and analysis, from physical to life and social sciences and from original research and news of the scientific world and its policies to expert analysis of that content. It is in fact this goal that has driven our series of new features in print and online. These changes are intended to help us retain our essential character while adapting to the needs of our readers and the electronic exigencies of modern scholarly discourse. *Science* will likely continue to refine and evolve these adaptations as new and better means of communication emerge.

As a scientist, one views any suggested changes in work habits skeptically. What will be the investment in learning a new technology with the hope of saving time in the long run? Can it improve one's awareness of progress in the scientific fields that must be followed? Some advocate electronic alternatives to established mainstream journals and an end to peer review. But how desirable is technology that merely intensifies the information glut faced by scientists today because the Internet makes such accelerated information access possible? The lower the barriers to unrestricted information access fall, the less valuable to users that information will become. Mountainous collections of information, unorganized, unanalyzed, and uncategorized, become useful only when experts take over and interpret the mountains with perspective. But in permitting this takeover, the individual scientist loses the pleasure of discovery and insight that has traditionally been derived from thoughtful digestion of the literature. Interactive knowledge environments such as *Science*'s Signal Transduction Knowledge Environment provide the first novel way of combining individual interests in a large, complex, and very rapidly moving field such as signal transduction with the views of experts. Drawing knowledge from information remains an overarching goal for *Science*.

For now, it remains to say thanks to our whole *Science* team for allowing me to ride along on your trailblazing efforts. I thank you so much. Farewell.