

# PRESIDENT'S REPORT

For much of its 116-year history, and particularly during the last thirty-five years, Cold Spring Harbor Laboratory has provided an environment for science of the highest quality. As we stand on the verge of the largest single expansion in the Laboratory's history, it is worth reflecting on how this culture of achievement is fostered.

The value of science can be assessed subjectively by the benefits it brings to society, such as advances in human health. There are more objective measures, such as the rate at which a research group's publications are cited by other scientists. By this measure, the Laboratory stands at or near the top of an elite group of international institutes and universities. But important science can also be so visionary that it is overlooked or misunderstood. The pioneering genetics research done at Cold Spring Harbor in the 1940s and 1950s by Barbara McClintock was not highly cited because it was so forward-looking, and in fact, two decades had passed before the scientific community as a whole came to appreciate the work for which Barbara eventually won a Nobel Prize in 1983. Even today, our plant biologists are still discovering molecular intricacies of the phenomena Barbara described.

Outstanding science is produced when the most able investigators work in an intellectual culture of the right kind. A successful research scientist needs talent but must also have a passion for exploring by asking questions and doing experiments. And passion is truly required, for the life of a scientist is demanding on time, intellectual effort, and family life. Thus equipped, a successful scientist must work in an environment that promotes freedom of exploration, because it is the imagination of an individual that generates new ideas and testable hypotheses. The Laboratory's environment, aside from being one of the most scenically beautiful in science, contains many elements that promote excellence.

One is our very capable administration that nurtures science while minimizing obstacles. Another is our internationally renowned meetings and courses program and the Banbury Conference Center, which bring to our campus many of the world's leading investigators to share new data and technologies. Many of our staff members take full advantage of the opportunities to learn from our visitors, recruit new members of research teams, and initiate collaborations. As a new Postdoctoral Fellow in 1979, I benefited enormously from the Cold Spring Harbor meetings and gained knowledge that has helped my own research and my ability to oversee a broad research program.

Another contribution to the Laboratory's research success has been the balance between creating diversity in lines of pursued research and building a critical mass of investigators with shared intellectual and technical interests. In maintaining such balance, it is important that the appointment of new faculty complements the skills of existing faculty, adding strength and depth to the research program as a whole. The combination of faculty turnover and arrival of new staff keeps Cold Spring Harbor at the cutting edge of research.

The collaboration and interaction among our scientists is one of our strongest assets. We actively foster such interactions through formal and informal discussion groups, joint laboratory meetings, and "in-house" seminars that encourage the exchange of ideas. In addition, some of the best ideas emerge in informal locations, such as the cafeteria, coffee shop, or bar. Postdoctoral Fellows and students gain valuable practical help and advance their careers by getting to know our experienced and successful senior scientists.

But even an institution such as ours, with so many elements conducive to creative science, needs the crucial addition of sufficient financial resources to enable researchers to pursue their ideas without constant worry about future funding. Modern science is expensive, time-consuming, and labor-intensive. Our scientists need the money to take on bold challenges—the kind that get federal funding only after an initial breakthrough. For this reason, a large percentage of the highly innovative research at Cold Spring Harbor is now funded by philanthropy. Such funds are much appreciated, but unrestricted endowment would provide essential funds for research infrastructure, start-up costs for new investigators, and support for new projects.

Maintaining the financial resources necessary to sustain outstanding science is our greatest challenge. Because federal support for science has fallen dramatically and competition for grants has intensified, unrestricted funds are required that can be directed to areas of need. Being financially lean can force scientists to think seriously about the most important questions to be addressed, but one cannot be too lean for too long. To maintain Cold Spring Harbor Laboratory as a place of outstanding science, we must be able to recruit the very best young investigators and provide them with start-up funds, and we must be able to support our successful senior scientists when they need it.

Perpetuation of our culture also requires contributions from our senior staff, especially as I devote more time in the future to raising funds to support our science and education programs. Advice from a Board of Trustees subcommittee (Robert Lindsay, Eduardo Mestre, Titia de Lange, and Robert Tjian) has helped us to put in place a management structure that will ensure that our culture of excellence will continue. A key appointment has been the promotion of Dr. David Spector to Director for Research. David is an internationally respected leader in cell biology and continues to make notable contributions to the understanding of the structure of the mammalian nucleus and its influence on gene expression. He has a deep understanding of our culture and will be vital in maintaining it.

Challenging times are ahead for the sciences in the United States due to reductions in research federal funding. With constant pressure from a public that wants its major diseases cured, Congress should now act to reverse this trend. But at Cold Spring Harbor, we must find a path that ensures that our way of doing science can be preserved independently of national trends. As this Annual Report demonstrates, our science continues to produce surprising and unexpected insights into the fundamentals of cancer, neurobiology, and the ways in which genes work. Sustaining this productivity is our most important goal.