

Fully Engaged

ACTION POTENTIAL DESCRIBES A BURST OF ELECTRICAL activity that gives rise to other events: passage of an impulse between nerve cells, transmission of electrochemical signals across a network to enable thought and movement. As I complete my first month as president of the Howard Hughes Medical Institute, action potential provides a metaphor for what may be my most important leadership responsibility: making it possible for compelling and creative ideas to propagate through our institutional nervous system—the broad and interconnected network of HHMI laboratories and programs in the United States and beyond. It's hard to imagine a more exciting job description or a better job in U.S. science.

For two decades, I have been part of the HHMI community as an investigator at the University of California, Berkeley. I managed, over that period, to avoid formal administrative responsibilities. So it's fair to say that I will have a lot to learn in this new role. I fully expect to make mistakes—and to hear about them when I do—but I also expect that everyone at HHMI will be fully engaged in supporting the work of this remarkable organization, known around the world for the quality of its research and educational programs. To appropriate terminology from my research field—biochemistry—I expect to see high specific activity across the Institute. That expectation squares well with our mission: to catalyze the pioneering discoveries that will ultimately yield new medical treatments by supporting the best scientists possible and the best science that can be done.

These are challenging times for HHMI, given the state of the U.S. economy and the impact of the uncertain financial markets on our endowment. Although our endowment is substantial, prudence dictates that we prune spending across the full spectrum of HHMI activities so that we can prosper in the future and continue targeted investments in new programs. Spending for our core research programs—specifically, HHMI investigators and the scientists at Janelia Farm Research Campus—represents the bulk of the Institute's expenditures and will be subject to modest reductions. We have trimmed generous allocations for new equipment this year and will reduce budgets in the upcoming fiscal year but will cushion the impact on our scientists by granting them greater flexibility in how they manage funds from year to year. Even in this climate, a modest reallocation of current funds may enable us to undertake two important activities that will serve HHMI investigators and others: expansion of our support for postdoctoral fellows and reintroduction of a fellowship program for doctoral students.

In short, we're not standing still and that's a good thing. Thanks to the visionary leadership of my predecessor, Thomas R. Cech, we'll soon be welcoming 50 early career scientists to the HHMI community. These impressive scientists, chosen from among 2,100 applicants, have already begun to make their mark in U.S. science, and we expect much from them over the next six years. You can read about four of them in this issue of the *HHMI Bulletin* and see the entire class on our website, www.hhmi.org.

We're also proceeding with a bold collaboration—with the KwaZulu-Natal Research Institute for Tuberculosis and HIV



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(K-RITH)—that will bring together HHMI investigators and scientists from South Africa in a program of research in the heart of the entwined epidemics of tuberculosis and HIV. You can read more about K-RITH and our partners in this issue of the *HHMI Bulletin*. This initiative is incredibly interesting and somewhat risky—but if we succeed, it will be a home run. Indeed, HHMI's strength depends on its ability to remain nimble, to rethink current programs, to experiment. Our commitment to international science is a good example: we support many excellent scientists around the world, but can we do it better? For example, should our international efforts track the “people not projects” philosophy that guides our U.S.-based program? Our domestic and international science programs will come under the same administrative leadership as we consider these important questions over the coming months.

Like Tom, who kept a laboratory at the University of Colorado at Boulder throughout his presidency, I plan to remain an active scientist. Weekends will find me at the Janelia Farm Research Campus, where three colleagues and I are working on new imaging technologies that will capture the activity of single molecules. Although I have scaled back the scope of my laboratory at the University of California, Berkeley, it's where you'll find me during many vacations and holidays. I may be something of a workaholic, but this isn't work for me. It's fun—equal to the joys of fishing.