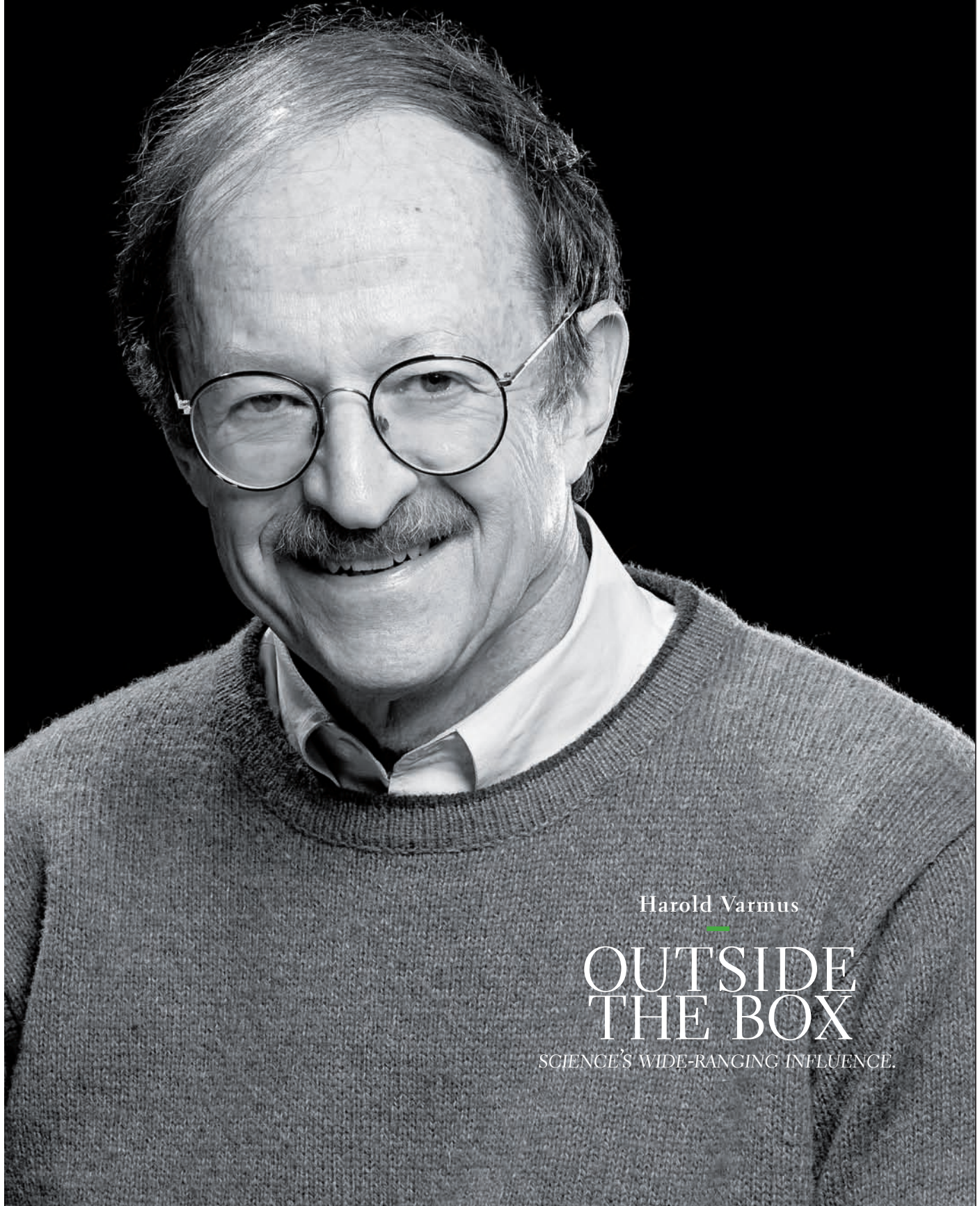


PERSPECTIVES & OPINIONS



Harold Varmus

OUTSIDE
THE BOX

SCIENCE'S WIDE-RANGING INFLUENCE.

Jesse Winter

Harold Varmus was a latecomer to science. After a year of graduate school in English literature he made his way to medical school, research training at the National Institutes of Health (NIH), and a faculty position at the University of California, San Francisco. He served more than six years as NIH director, is president of Memorial Sloan-Kettering Cancer Center, and is a co-chair of President Barack Obama's Council of Advisors on Science and Technology. In his new book, *The Art and Politics of Science*, Varmus describes his unusual route to science, his Nobel Prize-winning research, and his global goals for science policy.

What did you want to achieve in writing this book?

It was designed to show people who are still trying to figure out their career paths that it is possible to have a dalliance with other things and end up on your feet. I'm a big believer in people's ability to get a diverse education before they become bound to a laboratory. Having an appreciation of the arts is one of the things that makes us human, so it would be a shame if we reverted, as I sometimes worry we may be doing, to a more British-type system in which people commit to a single career path at a very young age. I also spell out why I'm passionate about issues like global health and open-access publishing.

You've called for a doubling of global health spending as a "pillar of U.S. foreign policy." Why?

We are spending more money on global health than we have before. But there needs to be more attention to health systems, to building ways for countries to become more self-sustaining with respect to diseases that get less attention, like the garden-variety pneumonia and diarrhea that are actually the big killers of kids in parts of Africa, Asia, and South America.

[Former ambassador] Thomas Pickering and I co-chaired a recent Institute of Medicine report on global health (The U.S. Commitment to Global Health: Recommendations for the New Administration). We would like to see the White House, the State Department, and the Department of Health and Human Services recognize global health—and I would argue global science—as a significant part of our foreign policy effort and coordinate that effort more effectively. We should have more scientists serving in our embassies and also bring visitors to other countries to talk about science. The world of science is a great place to internationalize, because everyone is dealing with shared problems, usually in a shared language.

INTERVIEW BY STEVE OLSON. *Harold Varmus is co-chair of the President's Council of Advisors on Science and Technology with Broad Institute founding director Eric Lander.*

What other policy changes would you like to see in the Obama administration?

President Obama's interest in science is clear. Before the inauguration he interviewed several scientists to get our take on science and government. The biggest long-term issue will be the funding of research. The President has excellent intentions to try to create an environment in which scientists can expect that there will be continued, moderate increases in funding, with budgets doubling over 10 years, as they have tended to do historically at NIH, but without the peaks and abysses that have characterized funding over the past 20 or 30 years. Feasts and famines create all kinds of havoc. Nevertheless, the President is working in a fiscal environment where the ability of the government to support domestic programs is going to be very limited, and also where Congress makes most of the calls. The intellectual opportunities are extraordinary at the moment, and our field is very optimistic about what science can do. But it can't be done without money.

You're concerned about prospects for young scientists, as well?

There's widespread concern about the increasing age at which young people become independent. Some of our best students spend a very long time in training, not getting faculty status until they are in their 40s. I look at my own career. I was 28 years old before I did any serious science. I learned to work in a laboratory during two years at NIH, was briefly a postdoc, and at the age of 32 was a full-fledged faculty member. We need to face the fact that you don't need to be a trainee for so long. On the other hand, we need to be sure that when people are launched as faculty members they're not so overburdened that they can't work hard in the lab and educate themselves about things they need to learn. Maybe we should be thinking creatively about how we structure the whole process of becoming a faculty member.



WEB EXTRA: For more of Harold Varmus's thoughts on global health and open-access publishing, go to www.hhmi.org/bulletin/may2009.