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“Competitiveness and the Power of Innovation”

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In its 2007-2008 Global Competitiveness Report, the World Economic Forum ranked the United States the world’s most competitive economy, up from sixth place previously. While we don’t lead on all scores, we received the top spot for innovation overall, for industry-university research collaboration and for our ability to attract global talent. While our return to first place is good news, the authors caution that “some weaknesses … continue to present a risk to our [nation’s] overall competitiveness.”

The National Academy of Sciences and other informed observers have warned for years that we are at risk of losing our global leadership in science and research. While some challenge these warnings, thankfully many policy makers know that staying at the top takes sustained investment in science. Our economy may be the world’s most competitive, but taking that for granted is a sure way to lose our position. To maintain our leadership, we need to convert rhetoric about innovation into investment—not for the sake of a ranking but to maintain our productivity, economic growth and standard of living.

Collaboration between industry and academia is cited by the World Economic Forum as a particular strength in the U.S. In health and medicine, academic research, largely financed by taxpayer dollars, has long fueled our research-driven industries through its pursuit of early-stage, basic science. Often, industry supports the translation of such publicly funded discoveries into clinical uses—collaborating with academia well into the clinical research phase. The government’s role in driving innovation is not limited to setting policy and allocating tax dollars, however. Governmental agencies actively collaborate with industry and academia—and must continue to do so to maintain the pace of innovation.

Support for this entire collaborative research pipeline is needed to ensure that new medicines, medical devices and other life-saving advances continue to offer patients new hope. Without this cross-pollination of public and private expertise and resources, American innovation would not be the powerful global contributor that it is, in so many areas of health and science.

Another key to our success lies in continuing to meet public expectations for results from medical research and in maintaining public trust in research. In a recent national poll, nearly three-quarters of Americans say they expect the next decade to bring breakthroughs in treatments for diabetes, cancer and heart disease. Yet a majority says we are not making enough progress. The American public wants medical innovation to succeed, and the sooner the better.
The power of research is only as strong as our commitment to invest in it. As federal and state investments in research have decreased, industry funding for research is starting to level off, signaling a dangerous downward trend.

Weaker government commitment to innovation is no doubt reflected in The Economist’s 2007 World in Figures, which ranks our nation not first but fourteenth for the extent to which government policies are conducive to competitiveness. Another critical sign of poor policy is the average age at which a scientist can anticipate receiving her/his first independent federal research funding—now, mid-40s. How much longer will gifted young people stay committed to research when their peers are well-established in other careers much earlier?

Keeping our lead in global competitiveness is more than a quest to stay at the top for form’s sake—it should be part of our national mission to put innovation to work for better health and prosperity. We should build on our heritage of innovation and deliver the full potential of our best scientific minds. We can ill afford to rest on past accomplishments but must work to ensure that research has the funding and the policy climate to succeed in today’s much more globally competitive environment.

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