10 Questions for the Presidential Candidates

1. Economic Competitiveness/America COMPETES. The National Academies report, “Rising Above the Gathering Storm,” recommended several actions to ensure the future economic competitiveness of the U.S., including greater federal support for university-based scientific research. Many of the report’s recommendations have yet to be implemented, and the America COMPETES Act, which Congress passed and the President signed to respond to this crisis, remains largely unfunded. What steps do you believe the federal government should take to ensure that America remains the world leader in innovation? Will you support full funding of America COMPETES?

2. NIH/Health Research. Since 2003, funding for the National Institutes of Health, the government’s primary agency for funding medical research, has been outpaced by inflation, constricting important work supported by NIH. What priority will you give NIH funding? And what role do you think NIH research can play in addressing issues related to the cost, quality and availability of health care?

3. Energy. The consensus that our country needs new energy sources has led to support for applied research to bring known potential sources of energy to market. However, basic energy research can provide the foundation for important new discoveries that can lead to future energy breakthroughs. What priority would you give to funding such research? Would you support a multiagency scientific initiative that stresses basic research and is aimed at addressing our future energy security?

4. Climate Change. Science and research are critical to understanding and addressing the effects of climate change. Do you believe the U.S. is adequately funding this research?

5. National Security. Past federal investments in defense basic research have led to technologies with major payoffs for national security and the economy. Radar, lasers, the Internet, stealth technology, fiber-optic-based communications, and satellite and GPS technology are examples. In recent years, funding for defense basic research has been flat, while funds for developing and testing new weapons systems has significantly increased. Do you believe the U.S. should invest more in defense basic research?

6. Space. The study of earth from space can yield important information about climate change, while observing the cosmos can advance our understanding of the universe. Human space travel can help us inspire new generations of youth to go into science. How would you prioritize funding for space and its various areas of research? What role do you see for unmanned space expedition and for space science?
7. Science and Engineering Workforce. Leaders in the business and scientific communities, as well as the Defense Department and other national security agencies, are worried that America is not producing enough scientists, engineers, and technicians to compete in the future innovation economy and help secure our nation. How would you inspire students and recruit them into these fields of study?

8. Government-University Research Partnership. Since World War II, the unique partnership between the U.S. government and universities, under which universities conduct important scientific research on behalf of the American people, has become the envy of the world. It has produced tremendous advances in health, technology, and national security, fueled economic growth, and trained generations of scientists, engineers, teachers, and leaders of government and industry. Today, the relationship suffers from stagnant federal funding, and increasing federal regulation without additional support has shifted research costs onto academic institutions. What steps would you take to strengthen the American research partnership and to address the growing research-related regulatory burden placed on higher education institutions?

9. Higher Education. Sustaining the nation’s economic competitiveness requires that an increasing share of the workforce hold undergraduate or advanced college degrees. The federal government and colleges and universities have worked together for decades to make college more affordable and accessible for students. Do you believe the federal government is doing enough, or would you propose improvements in the aid and tax benefits provided to families?

10. Social and Behavioral Sciences and the Humanities. The breadth of research and teaching at research universities extends from the sciences to the social sciences and humanities. More and more, social sciences, humanities, and understanding of other cultures and societies will be critical to our competitiveness and national security. The Defense Department’s new Minerva initiative reflects an understanding of this. What would you do to enhance support for the social and behavioral sciences and humanities, such as the work currently supported by the National Science Foundation and the National Endowment for the Humanities?