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MASSACHUSETTS GENERAL HOSPITAL

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MCLEAN HOSPITAL

November 14, 2012

The Honorable Ed Markey 2108 Rayburn House Office Building Washington, DC 20515-2107

Dear Representative Markey:

As leaders of the institutions that drive Massachusetts' innovation economy, we write to thank you for your continued service to our state and the nation. As you reconvene to complete the work of the 112th Congress, we wanted to share with you our concerns about the threats posed by pending sequestration and associated reductions to federal support for research.

An unprecedented reduction in discretionary spending is scheduled to occur on January 2, when sequestration will cut \$110 billion from defense and non-defense discretionary budgets in FY13 alone. These across-the-board cuts will drastically reduce the federal research funding that we depend on to deliver innovations essential to economic growth.

Our partnerships with the federal government fuel a dynamic system of growth in Massachusetts. Federal dollars that flow to our institutions based on the merit of peerreviewed proposals drive research, expanding knowledge and enabling the development of inventions, treatments, and cures. At the same time, ideas generated by our creative faculty, researchers, clinicians, and students spin off into the larger Massachusetts economy and lead to the creation of new products, businesses, and jobs. This ecosystem of innovation is a driving force behind technologies and therapies that are at the heart of national public health and economic well-being, as well as advancements that are improving global health.

Research support from federal agencies such as the National Institutes of Health, the Department of Defense, the National Science Foundation, the Department of Energy's Office of Science, and the National Aeronautics and Space Administration converge in our state, catalyzing discovery and entrepreneurship. The federal dollars we receive have a return far beyond their initial investment, acting as a significant magnet for private sector dollars that spur job creation in Massachusetts and beyond.

Consider the biomedical sphere. In FY11, Massachusetts received \$2.4 billion from the NIH in medical research dollars, second only to California. That same year, \$1.071 billion of the more than \$3 billion invested by venture capital firms into the state's emerging companies went to the biotech industry, a sector in which innovation builds directly on federally funded research. Between 2007 and 2011, the biotechnology research sector added 3,521 jobs in Massachusetts, more than any other state in this area over the same period. Comparable success stories exist across other sectors of the economy as well.

The White House Office of Management and Budget estimates that sequestration will cause an 8.2 percent reduction to non-defense discretionary spending. Such a cut would amount to a \$2.5 billion reduction to the NIH budget, disrupting as many as 2,300 grants. Other critical science-sponsoring agencies, including the NSF, the DOE Office of Science, and NASA science programs, each face cuts of \$400-550 million, while research programs at the DOD are scheduled for an even greater reduction of 9.4 percent. This would have severe consequences for research institutions in Massachusetts. According to the American Association for the Advancement of Science, overall federal research and development sponsorship in Massachusetts could be cut by \$3.1 billion over five years under sequestration, imperiling university-based research and the private investment it attracts. The effects of this drastic "reset" of research support may drive a generation of young talent to other fields as they seek to establish reliable career paths.

We recognize that our nation faces untenable long-term fiscal challenges, but federal research and development has not been a driving force behind our deficits. Overall spending, at both defense and non-defense agencies, has been essentially flat in constant dollars since 2003, and, despite its critical role in economic growth, federal research and development as a percent of GDP has fallen by half since 1965. The scheduled cuts will jeopardize our nation's status as the world leader in research and innovation, a position of strength established and maintained through bipartisan support of federally funded science over nearly a century.

Considering the consequential decisions at hand, we hope you will work together with your colleagues to adopt balanced deficit reduction strategies that view investment in research as a part of the budget solution rather than simply as an expenditure. Support for federal research funding helps to ensure our nation's health, prosperity, and international competitiveness. It has never been more important.

Sincerely,

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