

## COMMENTARIES

### The Outlook for Biomedical Research Under the Barack Obama Administration

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The election of Barack Obama was an historic event, the capstone on a Presidential race that consumed our national attention for more than a year. But now that the ballots are counted and the transition to a new administration and a new Congress has begun, scientists are beginning to wonder: what is the outlook for biomedical research under our new national leadership? Many high-profile researchers supported President-elect Obama's campaign, including 61 Nobel Laureates whose public endorsement letter declared that "Senator Obama understands that Presidential leadership and federal investments in science and technology are crucial elements in successful governance..." (1). Is this true, and does it apply to biomedical research, as well as the physical sciences? And will the new Congress support this vision?

The good news is that all initial signs are positive, and perhaps speak to a more hopeful time for research after six long years of flat funding for the National Institutes of Health (NIH). During his campaign, President-elect Obama pledged to double the basic research budgets at NIH and the National Science Foundation (NSF) over a ten-year period (2). In making that pledge, the incoming President used rhetoric that resonated throughout the biomedical research community, stating, "[O]ur science agencies are often able to support no more than one in ten proposals that they receive, arresting the careers of our young scientists" (2). The President-elect's support for medical research is underpinned by a deeply personal connection, as he often spoke of the need for more investment in the context of his mother's final battle with ovarian cancer (3). Of particular interest to bone researchers, President-elect Obama is

also cognizant of the impairment of osteoporosis. His late grandmother, Madelyn Dunham, suffered terribly from the disease, a fact he referred to frequently on the campaign trail (4). The President-elect also supports expanding the scientific research programs at NASA.

The new Congress, too, seems primed to restore a commitment to biomedical research. Democratic leadership has struggled to provide increases for research funding under the strict spending limits set by the Bush administration. Although NIH enjoys broad bipartisan support, last fiscal year the agency became a pawn in the political gamesmanship of overriding a Presidential veto and ultimately remained flat-funded. But the leaders in Congress, including House Speaker Nancy Pelosi, Senate Majority Leader Harry Reid, and the powerful appropriations chairs, Congressman David Obey and Senator Robert Byrd, have all spoken strongly in favor of increased NIH funding. NIH was one of the few agencies to receive money in a supplemental funding bill signed into law in June (5) and is being considered as part of an economic stimulus bill. Although Senator Byrd has stepped down as chair, it seems likely that his replacement, Senator Daniel Inouye, will continue his commitment towards medical research. With a President willing to sign funding bills that invest in domestic priorities, such as science, the chance of seeing a significant increase in NIH funding is greater than it has been at any point since the doubling of the budget ended in 2003.

Unfortunately, the landscape is not entirely without obstacles. Campaign promises and pledges of support must be taken in the

context of our current economic situation and other national priorities. The national debt is expected to exceed \$10 trillion, a figure that is likely to continue to grow as we spend money on financial rescues, economic stimulus, and the ongoing war in Iraq (6). Congress and the new administration will be dedicating a large part of their early agenda to trying to revive our economic health. Moreover, research funding is competing against other discretionary programs that have been long-neglected, including education, labor, and social services. President-elect Obama has outlined ambitious plans for healthcare reform, energy independence, mitigation of climate change, and strengthening of social security programs. Achieving these goals will require money and dedicated attention from Congress; biomedical research may be pushed further back in the queue. What's more, the partisan bickering and lack of consensus that contributed to the previous Congress' inability to make significant legislative progress still remain unresolved, and may only be exacerbated in the absence of election year concerns and because of the serious problems facing the nation.

Of course, funding is not the only issue of interest to researchers, and the scientific community can look forward to a return to respect for science during the Obama administration. The day after the election, the Obama-Biden campaign released a detailed plan for science and technology, which not only reiterates the funding and policy promises made during the campaign, but vows to "restor[e] integrity to U.S. science policy" (7). We can expect one of the first actions that President-elect Obama will take will be the overturning of the Bush policy restricting federal funding for embryonic stem cell research. Furthermore, the incoming administration supports science education, and has pledged to reinstate the Presidential Science Advisor, who also serves as head of the Office of Science and Technology Policy (OSTP), to a cabinet level position (7). As a Senator and on the campaign trail, President-elect Obama showed a strong interest in genomics and personalized medicine, as well as multidisciplinary research and

eliminating minority health disparities, all of which may factor into his selection of a Director of NIH.

With new policy opportunities come new challenges and there are a number of issues that biomedical scientists will need to pay attention to under the Obama administration and a more Democratic Congress. Questions related to conflict of interest in medical research continue to haunt the scientific community and are unlikely to disappear. There will likely be increased scrutiny on the protection of human subjects and the welfare of animals used in research. In addition, although President-elect Obama has declared strong support for peer review and scientific decision-making, as well as transparency in the earmarking process, based on recent legislative history the vast majority of bills introduced to direct research at NIH towards specific diseases have been introduced by Democrats (8).

"We are a land of moon shots and miracles of science and technology that have touched the lives of millions across the planet" (9). This quote by President-elect Obama seems to capture the optimism inherent in science – an optimism echoed by the research community as we look to the near future for biomedical research. Because of the extraordinary opportunities and looming challenges ahead, it is critical that investigators advocate for and convey the importance of medical research, and that we bring this message to our members of Congress, to the new President, and to our neighbors in the public. The research community must not grow complacent in educating policymakers about the need for investment in research and the pathway from basic discovery to medical advancement. Scientists finally have national leadership that is willing to listen: it is up to us to make sure we have something to say.

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