

## SCIENCE AND THE ELECTION

## Obama Victory Raises Hopes for New Policies, Bigger Budgets

Make no mistake: U.S. scientists hope that the election last week of Barack Obama as president and a larger Democratic majority in both houses of Congress will usher in an era of sustained, healthy increases in the federal funding of basic research. But money isn't everything, and in a time of yawning deficits and urgent demands on the federal treasury, those increases may not happen anytime soon.

Propping up a shaky economy will be job #1 for Obama once he takes the oath of office on 20 January 2009. So scientists and science policymakers will be looking to the new president to first make good on campaign promises that don't require big outlays, such as elevating the status of the president's science adviser, lifting a ban on new human embryonic stem (ES) cell lines, and restoring the integrity of federal decision making, including scrapping some environmental regulations based on questionable science.

At the top of the list for many is the early appointment of a science adviser with the additional title of assistant to the president. (The

current adviser, John Marburger, wasn't nominated until June 2001 and ranks a step below assistant on the White House pecking order.) Those actions would be a sign that the president-elect recognizes the importance of science to the country, says Ralph Cicerone, president of the U.S. National Academy of Sciences. "The world still loves and respects U.S. science, and it can be an instrument of good will—and good policies," says Cicerone. "When we wrote to both campaigns this summer, we did not say, 'Put more money into science.' What we said is that they need science to govern effectively."

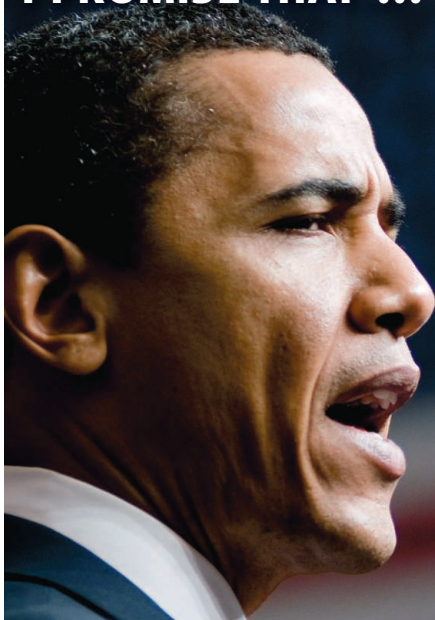
Some want Obama to go further and make the director of the Office of Science and Technology Policy (historically a second job for the science adviser) part of his Cabinet. Neal Lane, who held both posts during President Bill Clinton's second term, doesn't think that's necessary. But he agrees that regular access to the president and his Cabinet secretaries is essential. "The Cabinet table is pretty full already," says Lane, who emphasizes that Obama hasn't solicited his advice. "As long as

you're invited to all the meetings, that's all the status you need."

Stem cell researchers are confident that Obama will act swiftly on his promise to reverse President George W. Bush's policy of restricting federal funding for research on human ES cells to lines derived before 9 August 2001. Science lobbyists are shooting for a two-pronged attack: a speedy executive order, followed by legislation that would allow federally funded researchers to work with any lines derived from embryos that would otherwise be discarded by fertility clinics. Bush vetoed such legislation twice. But Representative Diana DeGette (D-CO) already has a new version ready. Introduced in the waning days of this Congress, it would allow research to be conducted on human ES cells "regardless of the date" they were derived and require the Department of Health and Human Services to issue research guidelines.

R. Alta Charo, a lawyer and bioethicist at the University of Wisconsin Law School in Madison, says Obama could simply tell the U.S. National Institutes of Health (NIH) to go ahead and fund research on newer lines. But Tony Mazzaschi of the Association of American Medical Colleges in Washington, D.C., thinks an executive order would be the best way to clarify a picture complicated by a 2007 presidential directive that urges NIH to

### I PROMISE THAT\* ...



My Administration will increase funding for basic research ... at a rate that would double budgets over the next decade. ... We are clearly underinvesting in research across the spectrum of scientific and engineering disciplines.

I believe that we can continue to modify plants safely with new genetic methods, abetted by stringent tests for environmental and health effects and stronger regulatory oversight.

My Administration will make the R&D tax credit permanent.

I will implement a market-based cap-and-trade system to reduce carbon emissions by the amount scientists say is necessary: 80% below 1990 levels by 2050. ... I will require all pollution credits to be auctioned.

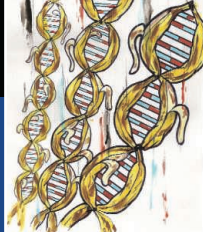
I will lift the current Administration's ban on federal funding of research on [human] embryonic stem cell lines created after 9 August 2001. ... Embryonic stem cells remain the gold standard.

I will work actively to ensure that the U.S. ratifies the Law of the Sea Convention.

I will reestablish the National Aeronautics and Space Council, reporting to the president.

My Administration will work to guarantee students access to strong science curriculum at all grade levels.

\*Answers to ScienceDebate 2008



explore “alternative” ways of generating pluripotent ES-like cells.

Environmental advocates are also hoping that Obama will overturn several rules and regulations put into place over the past 8 years. For example, David Wilcove, an ecologist at Princeton University, and others are pushing to reinstate into the National Forest Management Act of 1976 a regulatory requirement to maintain viable populations of vertebrates; that provision was removed in 2005 to provide greater flexibility, to the benefit of the logging industry.

In the meantime, environmentalists are nervously watching as the Department of the Interior tries to finalize several rules, including one that relaxes the requirement for federal agencies to consult with biologists at the Fish and Wildlife Service about actions that would impact endangered species (*Science*, 22 August, p. 1030). “This rule really is a dramatic weakening of the safety net that protects endangered species,” says Andrew Wetzler of the Natural Resources Defense Council in New York City. In August, a campaign official said Obama opposes the changes. If the department completes its work before Bush leaves office, however, reversing the last-minute rulemaking will take considerable time and effort.

Scientists haven’t forgotten about money, of course—especially Obama’s campaign pledge to double federal spending for basic research over the next decade. University and research lobbyists are hoping the new president’s backing, combined with strong bipartisan support, will help them achieve the ramp-up in funding for the National Science Foundation, the Department of Energy’s Office of Science, and the National Institute of Standards and Technology that’s authorized in the America COMPETES Act of 2007 but that has been an empty promise so far.

Some help could come as early as next week, during a lame-duck session of the outgoing Congress, if Democratic leaders and Republican Bush can agree on a short-term stimulus package. There’s an outside chance that the package could include something to shore up the nation’s research infrastructure in the current 2009 fiscal year, which runs through 30 September. “Funding for the COMPETES Act is still a high priority, whether it gets done in a stimulus package for 2009 or as part of next year’s [2010] budget,” says Robert Berdahl, president of the 62-member

## NEW CONGRESS LOOKS FAMILIAR

Democratic science powerbrokers in Congress have retained their seats. But a major reshuffling of Senate committee posts is under way that could affect research and training issues.

In the 435-member House of Representatives, where incomplete returns show Democrats gaining 20 seats, the leadership of the House Science Committee will remain unchanged after victories by representatives Bart Gordon (D-TN), the chair, and Ralph Hall (R-TX), the ranking minority member. The chairs of the 12 House appropriations subcommittees, who together oversee all federal research budgets, were also reelected, as was Representative David Obey (D-WI), the head of the full committee. The House retained its contingent of three Ph.D. physicists. Representatives Vern Ehlers (R-MI) and Rush Holt (D-NJ) won easily, and Representative Bill Foster (D-IL) parlayed a victory in a March special election into a full 2-year term with help from hundreds of physicists at Fermi National Accelerator Laboratory in Batavia, Illinois, where Foster worked until 2006.

In contrast, a more heavily Democratic Senate will see several new faces in leadership positions. Senator Daniel Inouye (D-HI) will succeed the ailing Senator Robert Byrd (D-WV), who turns 91 next week, atop the full appropriations committee. His move frees up the chairmanship of the Commerce, Science, and Transportation Committee, which is expected to go to Senator Jay Rockefeller (D-WV). Senator Joe Lieberman (I-CT) could be ousted as chair of the Homeland Security and Government Affairs panel for his vigorous support of Republican John McCain, who remains in the Senate. In addition, Democratic governors in Illinois and Delaware will name replacements for Obama and Vice President-elect Joe Biden.

—JEFFREY MERVIS

Association of American Universities in New York City. “The point is that none of the goals of the new Administration—on energy, on the economy, on climate change—can be realized without an increased investment in science.”

With a federal deficit that could hit \$1 trillion next year, however, such an investment is a hard sell. “Mr. Obama has promised so many things, but they all cost money,” says Representative Vern Ehlers (R-MI), one of the most insistent voices for research and education in Congress. Still, Ehlers says that adequate funding for the COMPETES Act is his top priority, too.

Obama’s campaign promises included a pledge to give NASA \$2 billion to cover the transition from the space shuttle to a new launcher. A new report from the Government Accountability Office identifies the shuttle transition as one of 13 critical issues facing the next Administration and Congress, and the loss of thousands of high-paying jobs in the electorally important state of Florida is a political challenge as well. But it may not be clear until early spring, when Obama rolls out his 2010 budget request, whether the money would be a one-time boost or spread out over several years, and how it would affect NASA’s regular budget.

Speaking last week to a National Research Council panel reviewing civilian space policy, NASA Administrator Michael Griffin

said the agency requires between \$2 billion and \$3 billion more annually to retire the shuttle, build the new launcher, and keep science programs on track. Griffin, who told the panel that he doesn’t expect to be asked to stay on, said he hopes Obama and the new Congress will, nevertheless, stick with current plans for a new launcher and human missions to the moon. Griffin also hopes that the new president won’t let his budget officials block the program. Characteristically blunt, he also advised the president-elect to rethink his promise to reestablish an Aeronautics and Space Council within the White House, saying that an earlier version under President George H.W. Bush was ineffective because it lacked budgetary authority.

With the election won, the high-profile group of scientists that funneled advice to the Obama campaign has been disbanded. Some of its members, however, hope that his transition team may still be willing to listen to their thoughts on science-related appointments and issues, especially if packaged as proposed vehicles to help revive a badly slumping economy. Otherwise, scientists will have to be content joining the throng that’s rooting for better times come Inauguration Day.

—CONSTANCE HOLDEN, ANDREW LAWLER,  
ELI KINTISCH, JEFFREY MERVIS,  
AND ERIK STOKSTAD