

ago. Until a replacement arrives at the end of the year, we have to buy helium on the market, where it costs 10 times as much. The result is that several experiments will stop because we don't have money. That's where physics is hit. And at less famous places, it is worse."

"What makes me mad is that a lot of spending goes to things which are not demanded by the science community in Europe—manned flight in space, the International Space Station, a megajoule laser for the military," says Brézin. "We have doubts about ITER [the international thermonuclear energy reactor]. A lot of spending choices are political, not scientific."

Indeed, a key concern among researchers is the government's centralization of science-related decision making. Says Didier Chatenay, a biophysicist at Strasbourg's Institute of Physics who quit his administrative responsibilities in the 9 March protest, "Some things do not function properly. The people who can best identify problems are those who are doing science. The solutions can't come from the ministry."

Perhaps more than anything else,

the dim prospects for young scientists have galvanized the nationwide protests. In the French system, scientists traditionally get permanent jobs early, so if they spend time in a temporary job, they are likely to have more trouble finding work in academic or industrial research later. "Therefore, young scientists are either unemployed or they emigrate to the US," says Audier. "It's a contradiction: We need them, but we drive them away."

A big mess

It's too early to say what effect the resignations might have. With no one officially in charge of a lab, no purchases or hires can be made. Indeed, for security reasons, the lab is supposed to remain closed. More broadly, all researchers who signed the petition intend to isolate the research ministry by, for example, refraining from reviewing grants, submitting progress reports, or even applying for ministry-administered grants. "It's going to be a big mess, but it won't stop the country—we are not the railroads," says Debrégeas. "It's a symbolic move."

On 9 March, lab directors—accompanied by an estimated 10 000–15 000 researchers—walked from Paris's City Hall to the research ministry, where they handed in their letters of resignation. Before the procession, they met to plot out the next steps for the *Sauvons la Recherche* movement. As of press time, big demonstrations were planned and strikes were being considered. French postdocs abroad were organizing protests in cities around the world, and scientists internationally had begun their own petition in support of researchers in France. Regional elections scheduled for late March were expected to have an impact, especially if, as some predicted, the research minister is ousted. Meanwhile, the researchers' movement has been building ties to artists, teachers, and other sectors of the population. According to a national poll on the day of the resignations, 82% of the French population supports the movement.

Says Debrégeas, "Beyond jobs, beyond money, what we are fighting for is, Who makes decisions for science? Is there a place for fundamental science in this country?" **Toni Feder**

Bush Administration Accused of Misusing Science

Despite efforts by the Bush administration to dismiss as biased a Union of Concerned Scientists (UCS) report and a statement by 62 prominent scientists charging widespread manipulation and misuse of science in the federal government, the controversy has refused to fade away. In the weeks following the 18 February release of the report *Scientific Integrity in Policymaking* and the scientists' statement (see http://www.ucsusa.org/global_environment/rsi), Office of Science and Technology Policy Director John Marburger said the report was wrong and told a Senate committee that he would "respond in some detail" to the allegations. He later said he was "preparing a very detailed analysis of the document to show the truth."

The UCS report, which cites scores of incidents, charges that "there is a well-established pattern of suppression and distortion of scientific findings by high-ranking Bush administration political appointees across numerous federal agencies." It adds that there is "strong documentation of a wide-ranging effort to manipulate the government's scientific advisory system to prevent the appearance of advice that might run counter to the administration's polit-

An independent science group claims to have documented scores of cases of scientific manipulation and abuse throughout the federal government.

ical agenda." The report says the "scale of the manipulation, suppression and misrepresentation of science by the Bush administration is unprecedented."

Perhaps carrying more weight than the report itself was the accompanying statement signed by 20 Nobel laureates, several former federal science officials, and many other scientists. The statement charges the administration with manipulating and misrepresenting science for political gains. Like the report, it describes specific incidents. On the issue of global warming, for example, the statement says, "In support of the president's decision to avoid regulating emissions that cause climate change, the administration has consistently misrepresented the findings of the National Academy of Sciences, government scientists, and the expert community at large."

In comments made when the statement was released, one signatory, Neal Lane, President Bill Clinton's science adviser and a former NSF di-

rector, said, "We are not simply raising warning flags about an academic subject of interest only to scientists and doctors. In case after case, scientific input to policymaking is being censored and distorted. This will have serious consequences for public health."

Marburger said during a broadcast discussion with Lane that he was "alarmed and concerned by the statement" because the many claimed incidents of misuse of science "do not reflect the behavior of this administration." The administration has a "performance-based" management style, he said, and the claim that officials "censor or suppress or do not seek outside advice is simply wrong." Marburger said he had talked to many of the officials involved in cases described in both the report and the scientists' statement, and the charges were not only wrong but "wrong in detail."

Lane said he was "surprised" by Marburger's characterization because both the report and statement contain

"fairly carefully selected incidents." The report notes that "highly qualified scientists have been dropped from advisory committees dealing with childhood lead poisoning, environmental and reproductive health, and drug abuse." The report also says that when scientific findings are in conflict with the administration's policies or with the views of its political supporters, censorship and "political oversight" have occurred at the Environmental Protection Agency and at the departments of Health and Human Services, Agriculture, and the Interior.

The report specifically calls into question the appointment process for Richard Russell, associate director at the Office of Science and Technology Policy, who is responsible for the technology portfolio. Russell has an undergraduate degree in biology, but no graduate or professional training in science, nor any experience in a technology-related industry. "It's a strange and remarkable decision to appoint a person with no education or experience with technology to such a senior position," said Kurt Gottfried, chairman of the UCS board of directors.

A growing awareness

Although the report was commis-

sioned in June 2003, the decision to issue a statement came about at a closed UCS meeting in Washington, DC, in the fall. A group of about 20 scientists, some of whom had held government positions, discussed a series of cases in which the integrity and impartiality of the scientific process seemed threatened. Scientists were aware of misuse by the administration, said Gottfried, "but they certainly didn't know just how comprehensive the situation was . . . so we decided that we should do something beyond just talking."

Over the next few months, the statement was circulated to prominent scientists throughout the US. "Not one disagreed with what it said," said Gottfried. "Many of them added quite strong statements about how alarmed they were, and how they were relieved that this [initiative] was happening and they could express their views in what might be an effective way." Some declined to sign because they didn't like the blunt language in the statement, he said. Others felt they were already engaged in trying to fix the problem and thought that signing the statement would jeopardize their effectiveness, he added.

Asked about the UCS charges at a

forum on science journalism in early March, Kyle McSlarrow, a deputy secretary at the Department of Energy, dismissed them. "The effort put into this attack [by UCS scientists] is not the same as they would have done in their own work. We should take it with a grain of salt. Science doesn't have a right to trump public policy," he said.

Gottfried countered that the report is "not a research document, it's not a scientific paper; it's a warning that there's a lot that is not being done properly and it should be investigated." He added that the UCS campaign is not targeted at Marburger. "It was not intended that way, and we don't know really whether he's had any opportunity to control the situation or not."

In fact, he said, "it's not just written necessarily for this administration . . . One shouldn't assume that if Bush doesn't get reelected that the problem will go away. The report highlights an erosion of standards that could have a long-lasting effect on the impartiality of scientific advice to the government."

Jim Dawson
Paul Guinnessy

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