ERAB panel. The best route to respectability, he says, would be for cold fusion researchers to publish in respected refereed journals. "I think a review is a waste of time," says Princeton University physicist Will Happer, another member of the earlier ERAB panel and former head of DOE's Office of Energy Research (now the Office of Science). "But if you put together a credible committee, you can try to put the issue to bed for some time. It will come back. The believers never stop believing."

And the skeptics are raising their eyebrows at DOE because of the appearance of political favors in setting up the meeting between Decker and cold fusion researchers. According to Hekman, "I am from Michigan. [Energy Secretary Spencer Abraham] is from Michigan. I know him. That opened the door." But, he adds, "we had to jump through hoops. We had to make a prima facie case first before any meeting would be set." Another Michigan connection is representative Vernon Ehlers (R-MI), a physicist by training, who says that he is "personally very skeptical" about cold fusion, but "it's likely time for a new review because there is enough work going on and some of the scientists in the arena are from respected institutions." Ehlers says that although he made an inquiry to DOE about a cold fusion review, "there was no political pressure."

Some scientists, too, are sympathetic to the cold fusion cause. "There are quite a few people who are putting their time into this. They are working under conditions that are bad for their careers. They think they are doing something that may result in some important new finding," says MIT's Mildred Dresselhaus, an ERAB panel veteran and former head of DOE's Office of Science. "I think scientists should be open minded. Historically, many things get overturned with time." Noting that DOE's science budget has not increased in years, she adds, "When you feel poor, you don't invest in long shots. This is kind of a long shot."

"The critical question is, How good and different are [the cold fusion researchers'] new results?" says Allen Bard, a chemist at the University of Texas at Austin. "If they are saying, 'We are now able to reproduce our results,' that's not good enough. But if they are saying, 'We are getting 10 times as much heat out now, and we understand things,' that would be interesting. I don't see anything wrong with giving these people a new hearing." In ERAB's cold fusion review in 1989, he adds, "there were phenomena described to us where you could not offer alternative, more reasonable explanations. You could not explain it away like UFOs."

Toni Feder

French Scientists Take to the Streets to Save Research

Researchers in France have quit the administrative parts of their jobs to show the government and the public the seriousness of their concerns about the country's research enterprise and universities.

Enough. That's what some 1000 lab directors from across France were telling their government when they resigned en masse from their administrative responsibilities on 9 March. Enough budget cuts. Enough job reductions. Enough loss of autonomy.

In resigning—from their administrative duties only, not from their scientific positions—the researchers were carrying out a threat made in a petition to the government. The "Sauvons la Recherche" (save research) petition says that "fundamental research is currently being abandoned by the state." It also says, among other things, that maintaining a topflight research capacity is essential; that targeting only specific research areas is untenable; that without fundamental research, applied research will collapse; and that, if the government does not act quickly, young scientists will make their careers elsewhere, and France will lose the capacity to train the next generations of scientists. In the two months between 7 January, when it was first posted on the Web, and the day of the resignations, the petition was signed by 65 000 researchers, or about 65% of the country's total research force (see http://recherche-en-danger.apinc.org).

Acting "collectively against the planned destruction of France's research capacity," the petitioners made three requests: immediate payment of money owed CNRS and other research agencies; more permanent positions in both research agencies and universities; and an open discussion leading to a long-term policy plan for research.

Government response

By the petitioners' deadline of 9 March, the government had taken some steps in their direction. In late February, research minister Claudie Haigneré announced that payment of €294 million (roughly $364 million) owed the national research agencies from 2002 and 2003 would be accelerated and completed this year. The government will also create 120 additional permanent jobs in the research agencies and set up a national committee to plan the future of research, she said.

But the government's response is not sufficient, according to the researchers. "They say they will release money owed to CNRS and INSERM [the French Institute of Health and Medical Research]. That is good. But as far as jobs, we are getting far from what we want," says Georges Debrégeas, a CNRS physicist at the Collège de France in Paris and a leader of the Sauvons la Recherche movement. Researchers want 550 more permanent jobs in the research agencies plus 1000 in universities this year—the agency positions had been converted this year into temporary contracts. "We cannot engage in discussion with the government as long as we don't get these emergency measures," says Debrégeas.

The government's initial proposal for a national committee to look into the future of science was met with distrust about its inclusiveness. "We want a public debate, where people from different parts of the country, from universities and labs, take part," says Debrégeas. "The ministry wants it to be consulting heads of organizations and then proposing something that is already written. That would not allow us to propose reforms."

Acting as go-betweens in the days leading up to the resignations, Etienne-Emile Baulieu and Edouard Brézin, the president and vice president, respectively, of the French Academy of Sciences, suggested that the academy organize a forum for formulating a long-term research strategy later this year. "The Sauvons la Recherche movement trusts us, and the government is more likely to listen to us than to the movement," says Brézin, who is also president of the French Physical Society and who, like Baulieu, did not sign the petition but sympathizes with the protestors. "One of the main questions our consultation should settle is, Is it better to keep money at the ministry level? Or should it go to the

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In a mock wake, researchers mourned the death of science in an early March demonstration in Paris.

agencies? Nobody really trusts the ministry's ability to allocate money with scientific criteria."

In an open letter to the research ministry in February, Henri Audier, a chemist who is a member of the CNRS administrative council and of the Sauvons la Recherche organizing committee, noted that the government has responded quickly to complaints by hunters, tobacconists, and restaurateurs. He wrote, "The scientists feel humiliated and scorned. . . . They are stunned that one can respond with such facility to corporate demands . . . but that there is no response to the shout that France and Europe will lack high-school teachers, university instructors, doctors, and engineers."

'We will slowly decay'

Discontent among researchers has been growing over the past two years as money for the national research agencies has been slashed by 25–30%. But the protests exploded full force after President Jacques Chirac said in a New Year's speech that research is his absolute priority. Says Brézin, "Strangely enough, that speech started the protests. The reaction was, 'Stop laughing at us, stop lying to us.' "

While the government avows its commitment to science, labs increasingly feel the pinch. "There has been turmoil in physics in the CEA [atomic energy commission] for months," says Jean Zinn-Justin, head of the commission's astro-, nuclear-, and particle physics division. Without more funding for basic science, he says, "we won't be able to start new projects. We will slowly decay." (Because of the way the CEA works, however, its lab directors decided not to sign the petition.) At the Ecole Normale Supérieure, adds Brézin, "my colleagues are telling me they need a laser. CNRS has no money for this sort of midscale equipment, so they have to wait until at least 2005. In low-temperature physics, a helium liquefier broke down a few months

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

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

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 political 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 director, 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