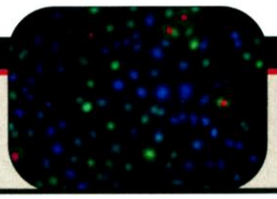
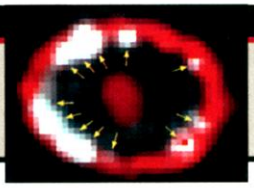




As a former university president, however (he headed the State University of New York, Stony Brook, for 14 years), Marburger also upholds the principle of autonomy. "It's important for universities to straighten this out campus by campus," he says.

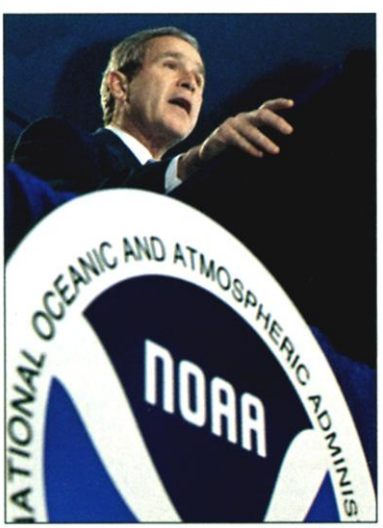
–DAVID MALAKOFF

CLIMATE CHANGE

More Science and a Carrot, Not a Stick

President George W. Bush last week delivered on his promise to face up to the threat of global climate change. But the new policy, which includes a slight bump in climate-related research, seems unlikely to alter entrenched views on the intensely politicized subject. Speaking at the Silver Spring, Maryland, headquarters of the National Oceanic and Atmospheric Administration (NOAA), Bush outlined a go-slow, entirely voluntary alternative to the reduction of greenhouse gas emissions required by the Kyoto Protocol. Whether the approach will ever net any significant emission reductions is unclear, but Representative Sherwood Boehlert (R–NY), chair of the House Science Committee, pronounced himself satisfied with its tone if not its substance. "The statement shifts the debate once and for all from whether to limit carbon dioxide emissions to how much to limit them," says Boehlert, who has criticized past environmental positions of his party's standard-bearer.

Bush's speech also highlighted two science initiatives, totaling $80 million, that are part of his 2003 budget request submitted this month to Congress. The Climate Change Technology Initiative would pump $40 million through the Department of Energy into as-yet-unidentified research and development, presumably including hot areas such as sequestration of carbon dioxide, with the goal of reducing greenhouse gas emissions. The $40 million Climate Change Research Initiative (CCRI) would complement research under the continuing $1.7 billion U.S. Global Change Research Program (USGCRP), which Bush's father began more than a decade ago. Presidential science adviser John Marburger last week told Boehlert's panel that the money would focus on finding science-driven answers to issues "of more immediate value to policy-makers" than what the global change program is addressing.



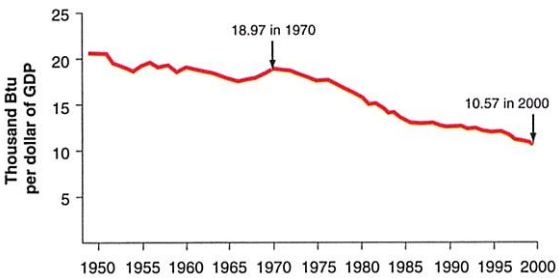
Please help. Restraint of greenhouse gas emissions will be entirely voluntary.

The president's new strategy aims for an 18% reduction by 2012 in "greenhouse gas intensity," the amount of emissions per unit of gross domestic product. The more efficiently Americans use fossil fuels and the more they use renewable energy, the more greenhouse gas intensity will decline. Bush hopes to entice businesses by providing $4.6 billion dollars over 5 years in tax credits for the use of renewable energy sources. He would also encourage more efficient use of fossil fuels by enhancing the existing registry of emission reductions and giving credits to businesses that show absolute reductions in emissions. These credits would become valuable if U.S. emissions were ever directly regulated; in the meantime, they would remain meritorious but useless.

The prospects for attaining Bush's goal "depend a lot on what investors think," says economist Raymond Kopp of the think tank Resources for the Future in Washington, D.C. Businesses are more likely to respond voluntarily, he says, if they believe that future regulation will punish slackers.

But Kopp and others note that the goal, even if attained, is not as ambitious as it might sound. Greenhouse gas intensity has been declining for many decades, including a 17% drop in the most recent decade. A government forecast of a 14% decline in the next decade would leave only 4% to come from the voluntary incentives. The total is less than 20% of the reduction in U.S. emissions spelled out under the Kyoto Protocol, which the U.S. has rejected and which in itself would not have detectably reduced global warming.

The research initiatives are designed to help the government decide whether any regulation may be required, Bush explained. The $40 million CCRI would explore carbon cycling—which controls how much carbon dioxide remains in the atmosphere—and aerosols, including soot, that can either mask or enhance greenhouse warming. It would also bolster global climate observations in developing countries. NOAA would receive $18 million under the initiative, including $5 million to establish a climate modeling center at its Geophysical Fluid Dynamics Laboratory in Princeton, New Jersey. That might strengthen U.S. climate modeling now lacking in focus (*Science*, 5 February 1999, p. 766). The National Science Foundation would get $15 million, including $5 million to explore how society can cope with a changing climate.



Right direction. The president's goal is to accelerate the decline in energy consumed per dollar of economic output.

Scientists welcome the research initiative, despite its modest size next to the $1.7 billion USGCRP, which is scheduled for a $44 million boost. "It's not very much money compared to USGCRP," agrees climatologist James Hansen of NASA's Goddard Institute for Space Studies in New York City. "But it is a signal to the agencies that this is the direction they should be going with the dollars they already have." Scientists, he says, were already getting the message as they scrambled to help refine the priorities Bush set last June.

–RICHARD A. KERR

ANIMAL WELFARE

Senate Says No to New Rodent Rules

Biomedical research groups have won a major victory in a long-running battle over U.S. government regulation of laboratory mice and rats. But the war isn't over.

The U.S. Senate last week voted to bar the U.S. Department of Agriculture (USDA)

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Objection. Sen. Jesse Helms says that mice and rats won't benefit from "regulatory shenanigans."

from setting new rules on how scientists use and care for millions of research rodents. "A rodent could do a lot worse than live out its life-span in research facilities," Senator Jesse Helms (R–NC) said as he successfully introduced an amendment to a major farm bill. Helms said that the new language will keep biomedical research from becoming entangled by "regulatory shenanigans" promoted by the "so-called animal-rights crowd."

Animal-rights groups have vowed to strip the new rule from any final version of the bill, which still must be reconciled with a House version that lacks the lab-animal language. "It's a setback, but we are not rolling over on this one," says Nancy Blaney of the Working Group to Preserve the Animal Welfare Act, a coalition of animal-rights groups.

The controversy stems from a 30-year-old USDA policy that exempts mice, rats, and birds—which account for 95% of all experimental animals—from regulation under the Animal Welfare Act (AWA). Two years ago, after several court battles, USDA agreed to draft caging and care rules. The deal outraged biomedical groups, which argued that Congress never intended for AWA to cover laboratory animals. They also charged that USDA regulation would duplicate existing government and voluntary rules and drain millions of dollars from research accounts. The groups convinced Congress to delay the rules once, but last year lawmakers told USDA to begin writing the regulations (*Science*, 23 November 2001, p. 1637).

Animal-rights groups plan to blanket negotiators on the final bill with appeals to drop the new language, which says that lab rats and mice aren't covered by AWA's definition of "animal." "Lawmakers will be hearing from us. ... This is making a huge change in the law without adequate debate," says Blaney. But Frankie Trull of the National Association for Biomedical Research, which lobbied for the ban, says the new law "restates what has been agency policy for decades."

Many Washington policy watchers, meanwhile, are smiling at the sight of a research establishment often accused of liberalism joining forces with an archconservative and frequent opponent. Says one lobbyist: "I'm sure some scientists had to hold their noses when they learned that Jesse Helms was going to be their savior." –DAVID MALAKOFF

AIDS RESEARCH

Longtime Rivalry Ends In Collaboration

AIDS researchers Robert Gallo and Luc Montagnier, who fought a long and bitter battle over credit for the discovery of HIV and the resultant blood test, this week announced plans to collaborate on developing AIDS vaccines for Africa and other impoverished regions. "A whole lot of people say, 'Why can't you guys collaborate, why don't you work together to try to help solve the problem?' " says Gallo, who heads the Institute of Human Virology at the University of Maryland, Baltimore. "It will stop a lot of that." Montagnier, who recently retired from France's Pasteur Institute and now heads the World Foundation for AIDS Research and Prevention—an organization he helped form under the auspices of UNESCO—cites another reason: "If we join our efforts, it will be more credible for fund-raising. ... We have some names that can help."

Montagnier approached Gallo a few years ago about setting up a collaboration. Gallo says he became intrigued in part because Montagnier's foundation has begun to develop testing sites in Côte d'Ivoire and Cameroon; a collaboration might speed the testing of Gallo's vaccines. The two also plan to merge their vaccine approaches. Gallo's

Rapprochement. Robert Gallo (left) and Luc Montagnier sign collaboration agreement.

CREDITS: (TOP TO BOTTOM) GRANT HALVERSON/AP; ROBERT GALLO

ScienceScope

MIT Inquiry After nearly a year of pressuring Massachusetts Institute of Technology (MIT) leaders, security studies professor Theodore Postol has gotten the university to investigate alleged scientific misconduct by professors involved in ballistic missile defense studies. In an 11 February letter, MIT provost Robert Brown grudgingly agreed to the inquiry, which will be headed by Edward Crawley, aeronautics and astronautics department chair. Crawley's panel will examine whether MIT Lincoln Lab researchers involved in a 1998 study covered up failures in a Pentagon missile test, as Postol has charged (*Science*, 1 February, p. 776).

Postol says the inquiry is too little, too late, and refuses to cooperate. "I will only respond to an inquiry that clearly is independent," he says. But Brown has rejected including non-MIT officials on the panel, which is the first step toward a formal university investigation. The feud is likely to continue. In a 7 February letter to the MIT board, Postol rails against a culture of "negligence, indifference, and lying" within the university's management.

More Light Germany wants its brightest scientists to focus on cutting-edge optics technology. Government officials this week said they will spend $243 million over the next 5 years on an array of projects, including optical lithography for better computer chips and optical scanners to identify new drugs, in a bid to lift Germany back to the top of a field it once dominated. Japan and the United States have the lead in some optics fields, says Eckhard Heybrock of VDI, the German association of engineers, who advised the government on the new program. To catch up, Germany will award funding to applied research done by several recently established "competence networks," collaborations between academic and industry researchers.

Yucca Yes Saying 2 decades of study is enough, President George W. Bush last week approved plans to bury radioactive waste from U.S. commercial nuclear reactors under Yucca Mountain in Nevada. But state politicians are vowing to block the long-controversial plan in the courts and Congress (*Science*, 28 April 2000, p. 602). Nevada governor Kenny Guinn (R) sued Bush just hours after the 15 February announcement, claiming the state didn't get enough time to review an environmental study. And a major congressional fight over the issue is expected this summer. The White House needs to win a simple majority in the House and Senate for the plan to proceed.