surveillance at the Centers for Disease Control and Prevention ($86 million).

In addition, the Administration would like to set aside $1.464 billion for "critical infrastructure protection and computer security," which Clinton said is 40% more than the government now spends in this area. Most of the money would pay for applied research on computer security through the Department of Defense. About $3 million would fund new computer science scholarships, Clinton said, to create a "cyber-corps" of electronic network defenders.

Congress seems likely to approve, or even increase, the amount of funding Clinton proposes to spend on antiterrorist projects, according to Representative Curt Weldon (R–PA). Weldon, chair of the House armed services subcommittee on research, says he has been "hammering" on the Administration to support civilian defense programs like these. "While I welcome the statement by the president," Weldon says, "it's about time the White House got on this bandwagon." –ELIOT MARSHALL

COMPUTING

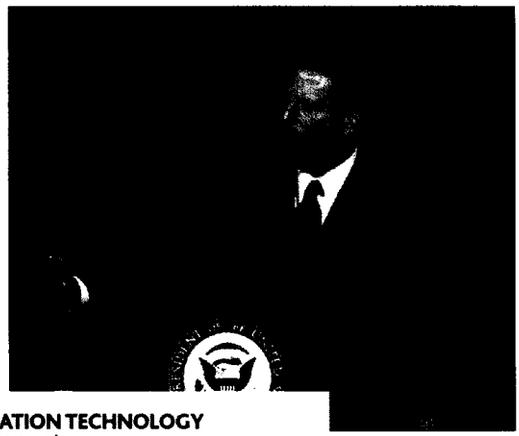
Gore Presents Plan to Spend $366 Million

ANAHEIM, CALIFORNIA—The field of computing is chock-full of acronyms, from RAM to Y2K. Last weekend the Clinton Administration coined another one: IT^2, to describe its plan to boost basic research in information technology. Speaking here at the annual meeting of the American Association for the Advancement of Science (AAAS, the publisher of *Science*), Vice President Al Gore unveiled details of an initiative that would add $366 million to the $1.5 billion already in the federal budget this year for information sciences, a 28% increase. Next week the Administration will submit the proposal—dubbed Information Technology for the Twenty-First Century, or IT^2—to Congress as part of its fiscal year 2000 budget proposal. Gore's preview was part of a deliberate series of leaks designed to highlight key initiatives in the president's budget (also see p. 611).

The widely anticipated plan (*Science*, 15 January, p. 302) is the White House's response to an August 1998 report from a presidential task force that urged greater investment in the kind of basic computing that produced the Internet and other digital breakthroughs. The task force recommended an increase of $1 billion over 5 years. Gore's announcement "did a remarkable job of responding to our report—I'm optimistic we can convince Congress it's the right thing to do," says Ken Kennedy, a computer scientist at Rice University in Houston, Texas, and a co-chair of the panel. But Republican leaders in Congress, although likely to support the concept, may well reshape the details to avoid giving Gore an accomplishment he can tout on the campaign trail.

In his speech, Gore said the new money is needed to bolster long-term research neglected by companies. "We must do more to use science and technology to sustain our prosperity," he said, adding that the Administration also supports another 1-year extension of a $2.4 billion tax credit for companies that invest in R&D.

If approved, the majority of IT^2 funds are slated for peer-reviewed university research aiming to create machines and software that could run at speeds exceeding 40 teraflops—or 40 trillion calculations per second—by 2003. The money would be divvied up among



CREDIT: AP

Challenge grants. Vice President Gore announces IT initiative at AAAS meeting.

NEXT STEP FOR INFORMATION TECHNOLOGY (IN $ MILLIONS)

Agency	Software, etc.	Supercomputers	Ethical issues	Total
NSF	$100	$36	$10	$146
DOD	100	0	0	100
DOE	6	62	2	70
NASA	18	19	1	38
NIH	2	2	2	6
NOAA	2	4	0	6
TOTAL	$228	$123	$15	$366

ScienceScope

Stem Cell Switcharoo Senator Arlen Specter (R–PA) now says he won't hurry to lift the controversial ban on federal funding of human embryo research. In an attempt to accelerate promising studies of human stem cells, Specter's staff had drafted a bill to end the legal taboo against using embryo tissue from private fertility clinics in taxpayer-funded labs. It would have given these labs direct access to "spare" frozen embryos, which are the source of one type of stem cell. But at a 26 January hearing, Specter suggested he will shelve the bill now that the Department of Health and Human Services, parent of the National Institutes of Health (NIH), has announced that stem cell research doesn't violate the ban (*Science*, 22 January, p. 465). Scientists hope this new interpretation will enable them to work with privately developed cells, which they aim to coax to grow into an array of transplantable tissues.

Curiously, Specter's cautious approach—which would prevent a contentious debate over the ban—is welcomed by an odd couple: the U.S. Catholic Church and members of the American Society for Reproductive Medicine (ASRM). The clerics like the status quo because it continues the funding ban, which has been attached as a "rider" for several years in succession to NIH appropriation bills. ASRM members favor it because the current rider expires with the 1999 appropriation in September. There is a chance, at least, that Congress will decide not to renew the ban. From their point of view, no law would be better than an "improved" law.

Mix and Match A prominent Japanese scientist has added his voice to the rising international chorus calling for stronger links across academic disciplines. Hiroyuki Yoshikawa, president of the powerful, independent Science Council, has been talking up the idea of mixing social scientists into projects that have broad implications for the public. Cloning experiments, for example, might add ethicists to the usual mix of biologists, while public health experts might join nuclear fusion teams.

The idea is to look at research "from a very wide point of view," Yoshikawa says. His "very important" ideas will get a hearing during an upcoming review of Japan's R&D policies by the Council for Science and Technology, says Hiroo Imura, former president of Kyoto University and a member of the panel, which advises the prime minister.

distribution is subtracted from the other, an interference pattern would result. When the team subtracted the distributions, they obtained ripples which matched predictions of models of how covalent bonding electrons might intrude into the hydrogen bonds. "We see that this is really the model that explains the data. ... The classical electrostatic picture is not enough," says team member Abhay Shukla of ESRF.

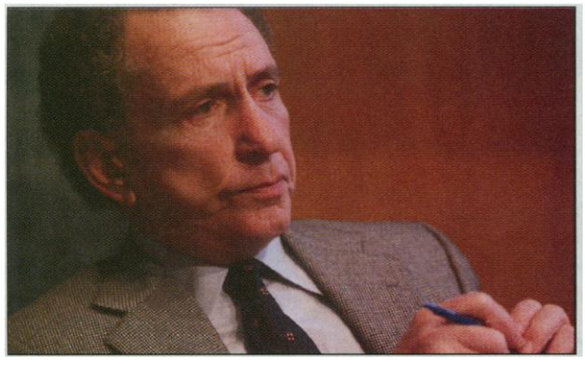
Electrons spread out in this way because of a purely quantum-mechanical effect known as delocalization, says Shukla. Electrons seek the lowest possible energy state, and for the covalent bonding pairs in water, the lowest energy state apparently extends into the hydrogen bonds. Scientists studying water and other materials with hydrogen bonds will now have to take into account the complex nature of their bonds, and a commonplace material is looking increasingly strange.

–ALEXANDER HELLEMANS

Alexander Hellemans is a writer in Naples, Italy.

NCI Asked to Increase Focus on Minorities

Cancer researchers are likely to be asked to pay more attention to minorities and the "medically underserved" in the wake of an analysis released last week by the Institute of Medicine (IOM). The report, ordered by Congress more than 2 years ago, contends that the National Cancer Institute (NCI) is not spending as much as it claims on studies of minorities and urges it to do more. The IOM panel also proposes a significant change in the way NCI gathers incidence and mortality data: It rejects standard racial categories and recommends that data be collected in ethnic or cultural categories. NCI leaders agreed in principle but said they face many practical barriers in trying to change the way data are collected.



Bottom line. Senator Specter asked how much NCI spends on research involving minorities and the "medically underserved."

The IOM panel offered its advice more in support than in anger, noting that NCI already is headed in the right direction. "During the time that the committee was developing recommendations, we could see that they [NCI officials] were also thinking along the same lines," says M. Alfred Haynes, former president and dean of Drew Postgraduate Medical School in Los Angeles, who chaired the 16-member IOM panel.

The 272-page report, titled "The Unequal Burden of Cancer," will almost surely increase pressure on the National Institutes of Health (NIH) and NCI during this year's round of appropriations hearings to direct more research toward minorities and the medically underserved. Among the disparities the report notes: Cancer incidence is 15% higher among African-American men than among white, non-Hispanic men; all minority groups have higher rates of stomach cancer than white Americans have; and the 5-year survival rate of Native Americans from all types of cancer is only about two-thirds that of whites.

The report suggests that poverty and lifestyle are at the root of these differences, and it frequently praises NCI's "excellent" leadership and its "impressive array" of minority-oriented research efforts. But the IOM panel and NCI are not in agreement about everything. NCI says it spent $124.4 million in fiscal year 1997 on research relevant to minorities and the medically underserved. The panel, rejecting NCI's definition of relevant research, says the figure is only $24.2 million. Senator Arlen Specter (R–PA) homed in on these numbers in his very first question at a hearing of his Senate Appropriations Subcommittee on Labor, Health and Human Services, and Education on 21 January, the day after the report's release. "This is a very fundamental question as to resource allocation," Specter said. "I want to get to the bottom of it."

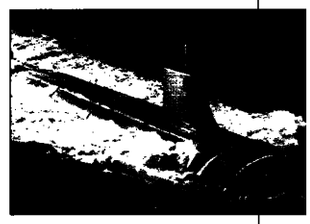
The dispute, however, may be largely a matter of accounting. NCI includes in its $124.4 million the cost of enrolling minorities in clinical trials and outcomes studies. The IOM panel contends that NCI should count only research projects that address "a priori research questions uniquely affecting minority and medically underserved groups."

NCI director Richard Klausner argues that "to segregate research this way would isolate the data we obtain, limit our ability to compare with the full population, and restrict our discovery of trends within subgroups that may only be discerned across

CREDITS: (TOP) U.S. NAVY; (BOTTOM) RICK KOZAK

ScienceScope

Dive! Dive! Scientists at the Armed Forces Institute of Pathology (AFIP) in Washington, D.C., regularly take on macabre and unusual assignments, including the grisly task of analyzing the remains of bomb blast victims. Now, thanks to controversial U.S. Navy plans to battle test one of its new Seawolf submarines (right) off the coast of Florida by detonating five nearby underwater mines, AFIP researchers may be examining corpses of another kind: whales, dolphins, and sea turtles.



Some conservationists fear that the Navy blasts—scheduled for sometime after 2000—could kill or injure the legally protected sea creatures. So, as part of a test permit, the National Marine Fisheries Service (NMFS) has required the Navy to fund, for a year after the blasts, AFIP studies of animals that strand on nearby beaches. The AFIP researchers—who have in the past conducted other studies on marine mammals—will be looking for evidence of explosion-induced "barotrauma," such as shattered ear bones. The free exams are a "wonderful" windfall to marine researchers, says Blair Mase, who coordinates regional stranding studies for NMFS in Miami.

Court Date A dozen scientists at the Georgetown University Medical Center in Washington, D.C., have followed through on their threat to sue the institution, claiming the university's directors ran roughshod over opposition to a new salary policy (*Science*, 22 January, p. 487). The complaint, filed 15 January, charges that the new policy—which ties salaries more tightly to a researcher's ability to win grants—"abrogated the core principles of tenure at the University and overturned 200 years of tradition in the treatment of Georgetown faculty." Several campus grievance committees have found in favor of the protesters over the last year. But university officials say they played by the book in overriding the rulings and implementing the new policy last July. A D.C. Superior Court judge could hear opening gambits as early as April.

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