

Clinton Names Adviser, NSF Chief

After more than a year of searching, President Bill Clinton and Vice President Al Gore have settled on their new science adviser—NSF director Neal Lane—and on biologist Rita Colwell as his successor

PHILADELPHIA—It was a safe choice, guaranteed to avoid controversy and win a standing ovation from the assembled researchers. Last week, President Bill Clinton ended more than a year of speculation by announcing that he would nominate Neal Lane, the current National Science Foundation (NSF) chief, to be his science adviser. He also named the University of Maryland's Rita Colwell to replace Lane, a move that would mark the first time a biologist has run the \$3.4-billion-a-year foundation. Clinton made the announcements in a speech (see p. 1111) here at the annual meeting of the American Association for the Advancement of Science (AAAS, which publishes *Science*).

The nominations put into place the last pieces of the Administration's new strategy for research and development. That strategy includes a new emphasis on basic research underscored in a 1999 budget request released earlier this month that would give most science agencies a dramatic boost over the next 5 years. The current adviser, Jack Gibbons, was ready to retire, and Lane was the natural person to push this new agenda, White House officials say. "Neal has placed the National Science Foundation at the center of our sci-



Science sandwich. AAAS President Mildred Dresselhaus and outgoing science adviser Jack Gibbons flank Clinton against background of posters.

Holdren—none of whom ultimately were interested in the post. Gore offered Lane the job at a White House meeting 2 weeks ago, but Lane did not meet with Clinton until after the president's Philadelphia speech.

The elevation of Lane to the top science policy job opens the way for Colwell's nomination to head NSF. Colwell, a University of Maryland microbiologist and former president of the AAAS, was named just a month ago to be the foundation's deputy director. Clinton's intention to nominate her for the directorship underscores the Administration's desire to promote greater synergy among the sciences, says Podesta. "It is at the interfaces of disciplines that a lot of interesting things are happening," adds Colwell. Richard Zare, who chairs the National Science Board, calls Clinton's choice "wonder-

ful news" that completes "a magnificent daily double for U.S. science and engineering."

The choice of Lane, a 5-year veteran of NSF, to serve as both presidential science adviser and director of the Office of Science and Technology Policy also signals a White House determination to avoid big changes in the way the Administration's R&D policy is made. "We're pretty happy

with the way science and technology is going," explains Don Gips, Gore's domestic policy adviser. "We wanted to bring in someone with real scientific expertise to make sure these new investments are spent wisely." Says Podesta: "We want to shake things up, but not the bureaucracy."

Lane, a well-respected physicist with a low profile and a quiet manner, is almost sure to encounter little opposition in his Senate confirmation, which is unlikely to take place until well after Gibbons's 15 March departure. And the pick pleases many researchers. "Very few people can bridge the gap between working science and politics," says AAAS President Mildred Dresselhaus. "He has enormous integrity and ability," adds Allan Bromley, a Yale physicist and science adviser under President George Bush. "He's terrifically smart and amiable," says Harold Varmus, National Institutes of Health (NIH) chief, in a view echoed by several people who have worked closely with Lane in recent years.

Some worry privately, however, that Lane's understated manner, which has served him well at NSF, could leave science on the sidelines in the fast-paced White House—a criticism that was also leveled at Gibbons. "With his quieter approach, it may take longer for him to find his way into that inner circle," Bromley allows, but adds that "I'm quite prepared to believe that Neal will adopt a more aggressive point of view."

The typically self-effacing Lane is uncomfortable discussing his personal style. In an interview with *Science* hours before the president's announcement, the 59-year-old Oklahoman admitted that the job embraces "a whole broad area that is much wider than I've had responsibility for in the past," adding that "it will be a very steep learning

NEAL LANE

Age: 59

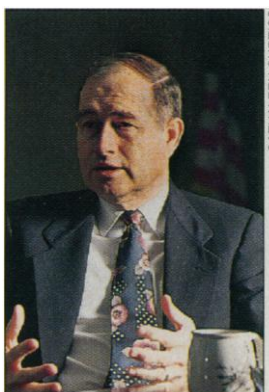
Current Position:

NSF director;
former provost,
Rice University

Education:

Physics
Ph.D., University of
Oklahoma

Publications: over 90



ence and technology policy in many ways," said Clinton. And John Podesta, the president's deputy chief of staff, told *Science* "he's a person who fits well into our team, who knows the players and doesn't need to spend a year out of the next three figuring out who's relevant and how the system works."

Clinton and Vice President Al Gore settled on Lane after flirting with a number of potential outside candidates such as Massachusetts Institute of Technology chemist John Deutch, aerospace industrialist Norm Augustine, and Harvard professor John

RITA COLWELL

Age: 63

Current Position:

President, University of
Maryland Biotechnology
Institute

Education:

Microbiology
Ph.D., University of
Washington, Seattle

Publications: over 500



curve—no doubt about it.” He declines to give a preview of what his immediate goals will be, insisting that those will be up to Clinton and Gore.

He will be entering a radically different environment in the White House from the one Gibbons inherited when he took the job in 1993. In the past 6 weeks, Clinton and Gore have been crossing the country sounding their revamped R&D theme praising basic research. The proposed 1999 boost in overall funding, Clinton said in Philadelphia, is “providing for the first time a strong, stable, multiyear source of funding for research.” NSF would get a 10% increase, which excites even the normally placid Lane. “It’s a great time to be a scientist,” he said on 2 February in unveiling the request. “It’s even a great time to be a science bureaucrat.” The proposed boost wins Lane plaudits. “He’s convinced the White House that NSF deserves equal billing with NIH as a major funding agency for basic research,” says Howard Silver, head of a consortium of social science organizations that advocate for NSF. “That’s no small achievement.”

Besides stumping for increased research funding, Lane will have to grapple with several politically charged and divisive issues. Bills to restrict human cloning, for example, have sparked bitter debate (see next story), while Senate Republicans are refusing to consider the Comprehensive Test Ban Treaty, which Clinton wants ratified. And Republican and Democratic lawmakers in Congress remain staunchly opposed to ratification of the Kyoto pact, made last December, which is designed to limit the production of greenhouse gases (see p. 1124).

In addition, Lane will face Republican skepticism toward applied research efforts, which are not his specialty. “Neal is very strong in the basic research area, but in some areas involving applications—like energy, climate change, biodiversity—we will want to work closely with him,” says Holdren, a member of the President’s Council of Advisers on Science and Technology. Lane notes that while he has focused on basic research as NSF chief, “these lines are not very sharp, and the division between basic and applied science is not a very clear one.”

But the toughest task for Lane and Colwell may be ensuring that fractious scientific disciplines work closely together—in both their research endeavors and their efforts to win a large funding boost in coming years. Forging those ties will be hard, Colwell acknowledges, given that each science has its own culture and jargon. Colwell, who is married to a physicist, says “We have to create a new language. That’s the real challenge.”

—Andrew Lawler

With reporting by Jeffrey Mervis.

SCIENCE AND POLITICS

Biomedical Groups Derail Fast-Track Anticlone Bill

The research community is not known as a powerful political force. But last week, biomedical groups demonstrated surprising muscle—and lobbying tactics that would have made the most seasoned Washington insider proud—when they derailed legislation moving on a fast track through the U.S. Senate. Their target: a bill that would have made it a crime to clone humans with the technology used last year to make Dolly, the world’s most famous sheep.

The research groups took on quite a challenge. The notion of outlawing human cloning has widespread popular appeal, and the bill itself had the backing of the most powerful man in the Senate, Majority Leader Trent Lott (R-MS). Indeed, its supporters were so sure they had a winner that they tried to bring the bill straight to the Senate floor, bypassing committee hearings and debate. But Lott’s tactic, it turned out, was a mistake. Opponents—including scientific societies, industry organizations, patient advocacy groups, and 27 Nobel Prize winners—argued that the bill would block basic biomedical research as well as human cloning. They won over enough senators, including such unlikely bedfellows as Strom Thurmond (R-SC) and Edward Kennedy (D-MA), to put off a vote.

It was a sharp loss for the Republican leadership, forcing Lott to withdraw the legislation. Says one Republican aide: “Nobody takes pleasure in handing the Majority Leader a defeat.” The battle is far from over, however, as the Senate bill may reemerge and other anti-cloning bills are also circulating in Congress. But last week’s showdown set the stage for a coming debate—and provided an object lesson in the hardball politics of biomedical policy.

Momentum for a cloning ban began building in January, as members of Congress returned from a long winter break during which they heard that Chicago physicist Richard Seed was trying to raise money to clone humans (*Science*, 16 January, p. 315). President Clinton added to the clamor in his State of the Union Address on 27 January by calling for legislation to block human cloning. Some members of

Congress wanted to seize the initiative.

According to staffers of several biomedical interest groups, conservative Senators Judd Gregg (R-NH) and Kit Bond (R-MO) met with Lott in late January to push for speedy action. Bond suggested they support a bill he had introduced last year during the Dolly furor. It would outlaw not just the creation of humans by cloning, but any research involving human eggs and the process of somatic cell nuclear transfer. This process—which was used to create Dolly—removes the nucleus of an egg and replaces it with the nucleus of another cell. The embryo is then stimulated to grow.

The conservatives gained an important ally in Senator Bill Frist (R-TN), a former transplant surgeon who heads the public health and safety subcommittee. With Lott’s blessing, Frist and Bond co-sponsored a new version of Bond’s bill (S. 1601), proposing to make human somatic cell nuclear transfer illegal, punishable by a 10-year prison sentence. The bill would also create a 25-member national commission to report on ethical issues in biomedicine. Lott himself introduced the bill on 3 February.

Biomedical organizations quickly mobilized. Many researchers had expressed concern about Bond’s bill last year, arguing that the cloning procedure it would outlaw might be used to produce not just embryos but primordial stem cells, which future technology might convert into transplantable bone marrow, skin, or other tissue. They also worried that the bill would broaden and extend the current moratorium on research done with human embryo cells. Sean Tipton, a spokesperson for the American Society for Reproductive Medicine, broadcast an appeal for help over the Internet. Tipton warned that under the guise of preventing human cloning, some members of Congress were making “a serious attempt ... to permanently enact an embryo research ban.” He asked the community to “stand up and be counted” in the name of “the freedom of scientific inquiry.”

The Pharmaceutical Research and Manufacturers of America (PhRMA), an associa-

