notes, the considerable variability in ocean heat content from decade to decade means scientists will still be hard pressed to find a precise number for climate sensitivity.

Getting better numbers for ocean heat content remains a top priority for oceanographers. "There's still a vast amount of data out there that needs digitizing," says Folland. And for future numbers, an international effort called Argo, now under way, will create an ocean-spanning network of 3000 free-floating instrument packages. Linked by satellites, the Argo drifters will create a "weather map" of the ocean down to 1500 meters. At least future oceanographers won't have to rummage through the data detritus of their predecessors to see what the ocean is up to.

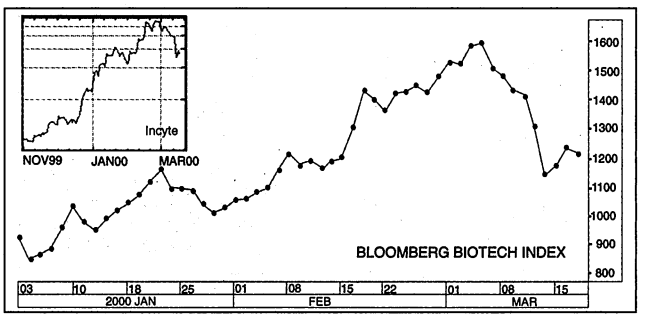
–RICHARD A. KERR

BIOTECHNOLOGY

How a Bland Statement Sent Stocks Sprawling

Muddled news reports and a volatile stock market turned a presidential statement on genome data last week into a disaster for many biotech companies. Stocks of genetic research companies, after shooting upward early this year, plummeted on 14 March when President Bill Clinton and British Prime Minister Tony Blair issued a bland statement urging all labs to provide "unencumbered access" to raw DNA sequence information (*Science*, 17 March, p. 1903). Almost immediately, biotech stocks, which were already headed downward, went into a nose dive; some companies lost as much as 20% of their value on paper in a few hours. Within 48 hours many began to stabilize, but remained well below their peak a week later. Industry analysts had trouble interpreting these market gyrations. One biotech expert suggested a simple explanation: Stock buyers "don't understand what they're investing in," he said, and they can be easily spooked.

The spark that ignited the panic may have come during an informal briefing given by Clinton's press secretary Joe Lockhart on the morning of 14 March. As *The Wall Street Journal* reported the next day, Lockhart told a "gaggle" of regulars who cover the president that Clinton and Blair intended to issue a statement in the afternoon about a plan to restrict the patenting of human genes. If this is what Lockhart said—his remarks were off the record—it was not correct. Francis Collins, director of the U.S. National Human Genome Research Institute, says the statement was never meant to describe a new policy. The wording—which had been debated and revised "in many iterations ... over many months," Collins says—simply affirmed support for a 1996 research policy that calls for the immediate release of raw sequence data. Indeed, the Clinton-Blair statement specifically endorsed the patenting of "new gene-based health care products." But this clear message became tangled in stories of the rivalry between publicly and privately funded genome scientists over who should control human genome data (*Science*, 10 March, p. 1723). The upshot: Early news reports were confused.



Biotech bubble. A 14 March Clinton-Blair statement accelerated a drop in biotech stocks, especially those of genomics companies like Incyte *(inset)*.

At 9 a.m., CBS Radio News broadcast that the United States and Britain were aiming to "ban patents on individual genes." The Associated Press reported that there was a plan to restrict gene patents, but later said that Britain and the United States would begin to "openly share data" on the human genome. (They already do.) The stories became clearer later in the day. Even so, Chuck Ludlam, vice president of the Biotechnology Industry Organization in Washington, D.C., who saw the Clinton-Blair statement as "positive news" for industry, says he found it "unbelievable how wrong the reports were all day."

White House spokesperson Jake Siewert later told *Science* that "we completely dispute" the *Journal*'s account of what caused the muddle. Lockhart, he says, told reporters that the Clinton-Blair announcement "had to do with public access to raw genomic data." But there was "confusion" during the "back and forth" between Lockhart and the reporters, Siewert concedes. "I don't think Joe got it perfectly right. ... And some reporters didn't get it perfectly right."

During the confused morning, stocks of companies that are creating private genetic databases—such as Celera Genomics of Rockville, Maryland, and Incyte Pharmaceuticals of Palo Alto, California—began to tumble. Other genome-related stocks began to slide, too. Soon the entire biotech sector slumped, as did the Nasdaq stock exchange index, which tracks high-tech firms. The Nasdaq index bounced back within 48 hours, but dropped again later, as investors remained wary of genomics and biotech companies. A week later, Celera and Incyte stocks, for example, were still 60% below their peak immediately before the statement. Predicts industry analyst Sergio Traversa of Mehta Partners in New York City, "Investors will remain a little bit more careful now," having been stung so badly.

–ELIOT MARSHALL

TAIWAN

Academy Head Touted For Top Political Post

TOKYO—Last week's presidential election in Taiwan, hailed as a boost for the country's young democracy, may also have a major impact on Academia Sinica, the island's premier collection of research institutes. Its leader, Nobel laureate Lee Yuan-tseh—who publicly backed the winning candidate, Chen Shui-bian, just days before the 18

Center of attention. Nobelist Lee Yuan-tseh, left, teams up with Chen Shui-bian before last week's vote.

CREDITS: (TOP TO BOTTOM) YAHOO, INSET: AP PHOTO/DAVID GUTTENFELDER

March election—is being tipped as a possible premier in the new government or as a special envoy to Beijing. But some researchers have criticized Lee's endorsement of Chen for jeopardizing Academia Sinica's political neutrality. And, given Chen's strong stance on Taiwan's independence, some worry that China could react to a government led by the two men by curtailing research collaborations.

A native of Taiwan, Lee spent nearly 30 years at the University of Chicago and the University of California, Berkeley, before returning in 1994 to head the academy. He lobbied successfully for a dramatic jump in funding and convinced a dozen or so topflight scientists to return home to take up key positions in the academy's 24 institutes. He also introduced peer-review procedures and other reforms that have led to a sharp rise in publications in top international journals. He's made it "a dynamic and vibrant institution," says Kenneth Wu, a molecular biologist who headed the academy's Institute of Biomedical Sciences for 3 years before returning last year to the University of Texas Health Science Center in Houston.

At the same time, Lee took on a very public role. Described by the media as "Taiwan's conscience," he championed social welfare measures, spoke out against governmental corruption, led a drive for educational reform, and chaired a commission to assist the victims of last fall's earthquake.

Although the academy reports directly to Taiwan's president, Lee had always urged his colleagues to maintain political neutrality. But colleagues say Lee grew increasingly concerned about corruption and decided to throw his weight behind Chen when it became clear that the race was close. On 10 March Chen visited Lee in his Academia Sinica office, and on 13 March Lee announced that "Chen is the only candidate capable of really rooting out the endemic corruption in Taiwan's politics." The same day, Lee tendered his resignation, which was refused by outgoing President Lee Teng-hui. The Nobelist then announced he would be taking vacation leave until the end of the month.

Some scientists worry that Lee's political move will strain relations between Academia Sinica and the long-ruling Nationalist Party, which still controls the country's legislature. "The momentum of progress at Academia Sinica is now irrevocably interrupted, and its reputation badly damaged," says one Chinese-American scientist from a major U.S. research university who has close links with Taiwan. But others say that Lee's departure from Academia Sinica could be equally damaging by depriving it of a strong leader. "It won't be easy to find [a replacement for Lee] with his vision and his international status," says Lin Sheng-hsien, director of the Institute of Atomic and Molecular Sciences, part of a group that has urged Lee not to step down. Lee could not be reached for comment.

As for scientific relations with China, China's Communist Party made it clear throughout the campaign that it opposed Chen, who was considered the most pro-independent of the major candidates. Lee himself enjoys close ties with the mainland. He has received honorary degrees from several Chinese universities and is an honorary professor of the Chinese Academy of Sciences' Institute of Chemistry in Beijing. Li Jia-quan, a research fellow at the Institute for Taiwan Studies in Beijing, says that because of Lee's endorsement of Chen, "it would be impossible for the mainland to accept Lee as a negotiator for relations across the Taiwan Strait." He added, however, that he doesn't think that it will affect contacts between academy scientists and their mainland counterparts. **–DENNIS NORMILE**

With reporting from Beijing by Li Hui of *China Features*.

INFECTIOUS DISEASES

New York's Deadly Virus May Stage a Comeback

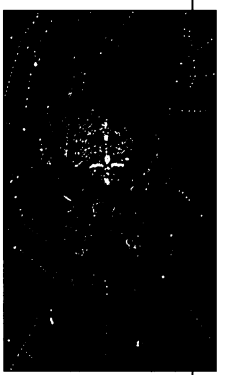
ATLANTIC CITY—Will it come back? That question has been haunting public health officials in New York City and state since a surprise outbreak of the West Nile virus sickened more than 60 people late last summer and killed seven. No more cases of this rare illness were detected after temperatures started dropping in October, rendering the climate inhospitable to the mosquito that transmits the disease, most likely a subspecies of *Culex pipiens*. But researchers didn't know whether the virus would survive the winter, either in mosquitoes or their eggs, or in birds, the virus's animal reservoir. Now they do. Two recent observations have shown that the virus is alive and kicking, researchers said at a meeting of the American Mosquito Control Association

Round two. A new generation of mosquitoes may spread the West Nile virus.

CREDITS: (TOP TO BOTTOM) CORBIS/PAT O'HARA; OXFORD SCIENTIFIC FILMS/ANIMALS ANIMALS

ScienceScope

Complex Structures The National Science Foundation (NSF) is creating a "virtual directorate" to manage its rapidly growing environmental research portfolio and biocomplexity initiative (*Science*, 10 December, p. 2068). The new structure will have all the trappings of one of NSF's six research divisions, including an outside advisory committee. Geosciences head and environmental czar Margaret Leinen explained the plan last week to NSF's overseers, the National Science Board. But in a unique setup, the committee will include one member from each of the existing directorate panels as well as major figures in the environmental community.



Officials say the arrangement is meant to raise the profile of environmental research, which the science board wants boosted by $1 billion over 5 years, from its current $609 million, without changing NSF's basic organizational structure.

Head Hunting Eager to snap up a White House official who may be jobless when President Clinton leaves office in January, the Washington-based Federation of American Scientists (FAS) recently offered Henry Kelly—currently assistant director for technology at the Office of Science and Technology Policy—the top job at the organization, according to sources close to FAS.

FAS was founded in 1945 by Manhattan Project scientists concerned about the spread of nuclear weapons. The nonprofit now works to discourage nuclear proliferation, limit government secrecy, and influence science and space policy. Previous FAS president Jeremy Stone resigned last fall after a 30-year stint, in the wake of criticism surrounding his recent book's veiled claim that an American physicist was a spy for Russia.

Physicist Kelly, a former staffer at the Office of Technology Assessment, the Arms Control and Disarmament Agency, and the Department of Energy, declined to say if he'll take the job. But "he was the outstanding figure" at the end of FAS's search, says one source.