

Can Celera do for the proteome what it did for the genome?

Researchers fret over export controls

The mystery of galaxy evolution

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

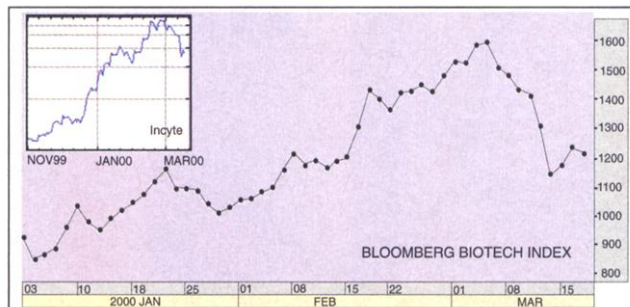
reporters didn't get it perfectly right."

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



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

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.

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

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.