SCIENCE AND COMMERCE

'Fountain of Youth' Lifts Biotech Stock

The biotechnology world received a reminder last week of Wall Street's fickle love of new research results—and researchers got a lesson in how that passion can play havoc with efforts to orchestrate the release of scientific informa-

tion. On Tuesday, 13 January, the price of shares in Geron Corp., a California-based biotech company, rose 44% after news leaked that scientists there and at the University of Texas Southwestern Medical Center (UTSW) had managed to stem the aging process in cultured human cells. By week's end, however, as it became clear that incomegenerating products of the research are distant, Geron's share price had glided back down.

The research, which confirmed that the enzyme telomerase can affect cellular aging, was scheduled for publication in the 16 January issue of *Science*. Following what has become standard practice for many journals, *Science* had sent information on the upcoming paper to reporters on 9

January, under a strict news embargo until 4 p.m. on Thursday, 15 January. A group called the Alliance for Aging Research (AAR), which promotes research on age-related diseases, also scheduled a news conference with some of the authors and other experts on aging to help explain the findings. The news conference was originally set for 1:30 p.m. on Thursday, with the information also embargoed until 4 p.m. But Geron's lawyers asked that the event be pushed back to 4 p.m. so that company officials couldn't be accused of trying to hype



Mood swings. Spikes in August 1997 and last week reflect reaction to publication of papers in *Science*.

the company's stock price before publication.

This careful choreography began to fall apart on Monday, however. AAR sent an embargoed media advisory offering some details of the study to a newswire service that distributed copies not only to news outlets but also to investors. The entire advisory was published

_ FOOD SAFETY_

U.K. Cooks Up Food Standards Agency

LONDON-Britain's Ministry of Agriculture, Fisheries, and Food (MAFF) has always suffered from a conflict of interest, catering to the needs of both food producers and consumers. But criticism that it puts farmers first has grown in recent years in the wake of several damaging episodes, including the epidemic of bovine spongiform encephalopathy (BSE) and outbreaks of food poisoning caused by Salmonella and the often fatal Escherichia coli 0157. The number of such outbreaks has tripled over the past 10 years. Last week, the British government outlined plans to end MAFF's split personality by creating an independent agency to take control of food safety surveillance and research.

The proposed Food Standards Agency will have an initial research budget of about \$40 million, transferred from other government departments, and it will champion consumers. "It is time to see a shift in the way science sees the food chain, in a way that benefits consumers," says nutritional researcher Philip James, director of the Rowett Institute in Aberdeen, who authored a report that led to the new proposals. The new agency will advise the government on food safety, conduct research and surveillance, and set and monitor standards for enforcement of food safety laws. It will also carry out public education and information campaigns.

When the Labour Party, then in opposition, asked James to look into food safety policy last year, "the first thing I found ... was the gap between the research interests of vets, farmers, meat processors, and consumers," he says. "There was no mechanism for looking at questions along the whole food chain ... [yet] the potential risks from fragmented decisions on the evidence from one part of the food chain can be amplified hugely in later stages," he says. "E. coli 0157 thrives without symptoms in some animals, but as few as 10 microbes can kill a human. We need very broad-ranging research to tackle problems like this."

online by a database service late Monday afternoon. And on Tuesday, the same advisory was reportedly published on America Online's popular "Motley Fool" investment chat page. Reports that telomerase had been identified as a possible "fountain of cellular youth" were soon all over the Internet, and Geron's stock price took off on Tuesday morning. At that point, *Science* lifted the embargo on the paper, and stories appeared in most major media on Tuesday evening and Wednesday morning.

David Molowa, a biotechnology stock analyst with Bear Stearns in New York City, notes that biotech stocks are particularly prone to wide price swings because most companies don't have any products or make money, so their stocks trade largely on hopes of future earnings. "Investors get really excited and don't realize [any product] is decades away," he says. Indeed, investors caused a similar spike in Geron's stock price last August following publication of another paper in *Science* that identified key segments of the human telomerase gene (*Science*, 15 August 1997, p. 955).

But even scientists at Geron and UTSW downplayed immediate commercial implications of the company's research. The idea that the research will lead to new drugs "is clearly going out on a limb," says Woodring E. Wright, a cell biologist at UTSW, who helped lead the new study. "What [the latest] study shows is that we can control the process of cellular aging, not in the body but in tissue culture." It's a long way from there to affecting the body, he says. Even so, for a short time, it managed to add some youthful vigor to Geron's stock.

-Robert F. Service

James also hopes the new agency will help shift the focus of research on novel foods developed from genetically modified organisms. "Industry is researching and developing these products for its consumers—farmers—on the basis of maximum yield and profitability, and [members of] the public are never remotely consulted on these priorities," he says. "I believe there will be a shift to a new research agenda based on public interests rather than industrial interests over the next 5 to 10 years, and I hope the agency can help achieve that."

Plans for the new agency have drawn cautious support from researchers. "I welcome the fact that it puts food standards on the political agenda," says nutritionist Tom Sanders at King's College London. "But a key to its success will be to see just what research it pursues and how it goes about commissioning it." Public interest lobby groups have also given the idea a preliminary thumbs up. After weighing comments, the government is expected to draw up legislation and implement the proposals by 1999.

-Nigel Williams