

## German researchers seek legal backing for stem cell work

### Munich

German scientists were due to speak out at a public seminar this week against what they see as a legal double standard which allows them — at least in principle — to carry out research using human stem-cell lines produced commercially in other countries, but not to create their own.

Germany's law on reproductive medicine, one of the most restrictive in Europe, bans the extraction of stem cells from a human embryo. Such cells have the potential to develop into any type of tissue, and could eventually be used to grow organs for transplantation.

But they also have the potential to grow into a complete human being, and the German scientific community has not previously pressed for a change in the law. "But science has moved on such a lot in the past year, and many think it's time for some details of the embryo protection law to be reconsidered," says Anna Wobus, a mouse stem-cell researcher at the Institute for Plant Genetics at Gatersleben.

Her view is shared by Wolf-Michael Catenhusen, social democrat secretary of state for the federal research ministry. He has organized a 'status seminar' in Berlin this week where scientists will outline the scientific possibilities and ethical limitations of human stem-cell research.

The health ministry, run by members of the Green party, is supporting the debate by holding a three-day seminar in May on all aspects of reproductive medicine. The ministry, which is responsible for proposing changes to the embryo protection law, is said to be less enthusiastic about the scientific possibilities, and few expect it to act during the current legislative period, which has three years to run.

This is not necessarily a bad thing, says Henning Beier, professor of embryology at the University of Aachen, and political adviser on reproductive medicine, because opening up a parliamentary debate could result in the law being tightened. Beier is one of many German scientists who feel uneasy that Germany can benefit from stem-cell research done in other countries while maintaining a 'moral superiority' by not doing such research itself. **Alison Abbott**



Catenhusen: organized seminar.

## Balance is returning after US biotechnology shares scare

### Washington

Biotechnology stocks recovered slightly last week from their sharp drop in value the week before. Many analysts suggested that the earlier call by US President Bill Clinton and British Prime Minister Tony Blair for the open sharing of raw gene-sequence data (see *Nature* 404, 324–325; 2000) was merely the trigger for a massive sell-off of overvalued shares that was already poised to happen.

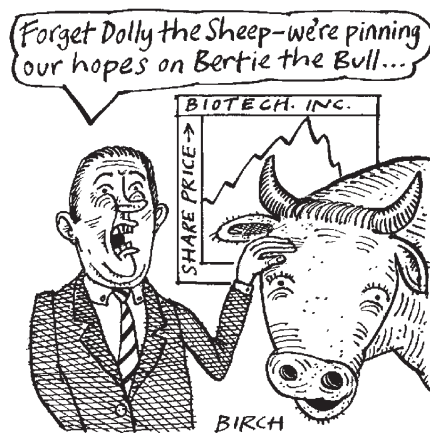
The analysts argued that the sector had become overvalued since December, when a stampede of apparently indiscriminating investors had poured money into biotechnology and genomics companies on the heels of a number of headline-grabbing announcements. These included the publication of the full sequence of chromosome 22 (see *Nature* 402, 447–448; 1999), and the news that Celera Genomics expects to finish sequencing the human genome this year.

Even if Clinton and Blair had not made their 14 March announcement, according to several analysts, some other event perceived as 'bad news' by investors would have prompted a similar sell-off soon. "The markets were looking for a reason to correct in biotech," says Eric Schmidt, a molecular biologist who now works as senior biotechnology analyst with S. G. Cowen Securities, a New York-based company focused on technology and health-care research. "By any measure the valuations were stretched."

"It was a speculative bubble," adds Karen Johnson Grunst, a health-care stock analyst at Banc One Investment Advisors, a large unit-trust manager in Columbus, Ohio. "People were investing in these stocks who didn't understand the fundamental stories — and more importantly, didn't want to."

Even though the Clinton-Blair joint statement emphasized the importance of patent protection for "gene-based inventions", many investors, apparently confused by erroneous media reports alluding to an incipient ban on gene patents, fled "in a blind panic", as one analyst put it.

By last Friday, the NASDAQ biotech index had fallen by 15 per cent since 14 March, registering a 30 per cent decrease since its post-December peak on 7 March. High-profile biotech shares have taken greater hits than the index as a whole, closing at strikingly lower values than those at which they opened on 14 March: Celera closed at \$122.5, down 31 per cent; Human Genome Sciences closed at \$97.81, down 37 per cent; Incyte closed at \$107.38, down 46 per cent; Millennium Pharmaceuticals closed at \$139.63, down 41 per cent; and Affymetrix



closed at \$155.75, down 35 per cent.

Further volatility and perhaps more falls in biotechnology shares are expected in the coming months. But analysts predict that solid companies should ultimately recover their lost ground. Indeed, many of the shares listed above increased in value between Monday and Friday last week; the NASDAQ index rose from its nadir of 1,087 on Monday to finish the week at 1,137.

William Haseltine, the chief executive officer of Human Genome Sciences in Rockville, Maryland, criticized the way the sell-off had taken place across the whole biotechnology sector. "Investors should look at the underlying companies, not the sector. I believe that if you look closely at our company, you will find a company worth investing in."

Indeed, some analysts urged clients to buy into what they now feel are undervalued companies that remain excellent long-term bets. Michael King, an analyst at Robertson Stephens, a San Francisco-based brokerage house, upgraded his recommendations from 'buy' to 'strong buy' on stocks including Affymetrix and Millennium Pharmaceuticals. The sell-off "does nothing to diminish our enthusiasm for the genomics sector nor the transforming technology contained therein," he says.

Some, however, are less bullish. Grunst, who co-manages \$1.15 billion in unit-trust health-care holdings, urged her company to replace pharmaceutical shares with biotechs last autumn. But in January and February she retreated from what she thought was becoming an overvalued sector, cutting her biotech holdings by a third and getting out of companies such as Biogen and Chiron altogether. Grunst says that she is now putting her money on companies that form the 'bricks and mortar' infrastructure behind biotechnology, along with selected product-oriented companies. **Meredith Wadman**