## BUSINESS

## Hwang scandal hits Korean biotech hard

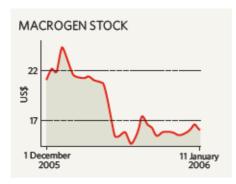
ntil its ugly end, 2005 had been a pretty good year for South Korea's fledgling biotech industry. The government was pouring money into biomedical research, and the Kosdaq stock market brought in changes that made it easier for biotechnology companies to go public. Many firms saw their share prices surge.

But they hit the buffers in December, when the magnitude of the scandal consuming Woo Suk Hwang, a stem-cell biologist at Seoul National University, became apparent. Early in the month, stock value crashed even for companies whose business is not directly related to stem cells, such as Macrogen (see graph), which provides tools and services for genome research. Most firms lost between a fifth and a half of their value in December alone.

The industry was so badly shaken partly because Hwang's research —much of it now discredited — had played a starring role in its ascent, insiders say. "Hwang provided the psychological effect" behind the earlier growth, says Han Oh Park, chief executive of Daejonbased Bioneer, which makes reagents and drug-discovery tools.

At the same time, the South Korean government's generous financial support for Hwang's work, which has totalled perhaps US\$30 million, boosted investors' confidence that biomedical research in the country would yield significant results. Thanks largely to Hwang, more biotech companies expressed a specific interest in stem-cell research — and when they said as much, their stock prices rose.

Jung Seob Shin of KDB Capital, a venturecapital arm of the Korea Development Bank, argues that last month's collapse does not reflect a change in the fundamental outlook of the sector. He says that this has been





The fall of Woo Suk Hwang has damaged even companies that have nothing to do with stem cells.

improving over the past few years, and points out that in the first half of this month, many stocks have already regained ground.

Se Jong Park, president of the Korea Bio Venture Association in Seoul, goes so far as to argue that the scandal could help the industry's long-term growth, by reminding investors to look more closely at individual stocks. "What will happen during 2006 is discrimination" between good and bad companies, he predicts. Of about 600 biotechnology companies in South Korea, Park estimates that just 50 will survive in the long term.

And there are still signs of confidence in Korean biotechnology. Three companies — Seoul-based gene-therapy company Viromed, Bioneer and CrystalGenomics, which makes platforms for protein crystallization — went public in late December or early January; they raised a total of US\$72 million between them. "I was very worried about the impact of the scandal, but we overcame it," says Bioneer's Park.

Not everyone can expect to be so fortunate. "Fundraising will become more difficult for certain companies," says Jason Lim, who manages investment in biotech for InterVest, a venture-capital company in Seoul.

The most immediate concern for the Korean biotech industry is that the government, which increased its annual spending on biomedical research from some 380 billion won (US\$380 million) in 2001 to more than 700 billion won last year, might now divert resources into rival spheres of research, such as computer science or nanotechnology. For now, the ministry of science and technology says it has no plans to slow its investment in biomedical research.

Ichiko Fuyuno

## IN BRIEF

MONOPOLY MONEY Boeing and Lockheed Martin look set to form a joint venture that could dominate the supply of rocket launchers to the US military. Officials close to the deal say that the Pentagon has endorsed the venture and will shortly take it to the US Federal Trade Commission, which regulates competition, for approval. Rivals are aghast that the Department of Defense is prepared to let its two largest rocket suppliers work together in this way - but analysts expect to see more such deals between defence contractors as spending is squeezed.

## **RECORD REVENUES**

Biotechnology company Genentech clocked revenues of \$6.6 billion in 2005, capping a year of extraordinary success fuelled by cancer-drug sales. The South San Francisco firm reported that its profits in the last quarter of the year grew by 64% compared with 2004. It also scored a public-relations coup by topping Fortune magazine's list of the 100 best US companies to work for.

WILL IT SHELL OUT? Royal Dutch Shell is being sued by 26 European pension funds, mainly based in the Netherlands, over its admission that it artificially boosted its claimed oil and gas reserves between 1997 and 2003. The pension funds are claiming hundreds of millions of dollars in compensation from the oil company; they have broken away from litigation already being undertaken in the United States.

**DEAL SEALED** Shareholders in Berna Biotech, a Swiss vaccinemaker, voted last week to approve a takeover by Dutch biotechnology company Crucell (see Nature 438, 737; 2005). The merger resulting from Crucell's all-stock offer, valued at about US\$460 million, will create the world's largest independent vaccine-maker; the company will retain the name Crucell and stay based in Leiden. The merger was approved hours after Novartis dropped an effort to acquire Berna - late last month Novartis said it was considering buying the smaller company and combining its vaccine operations with those of its expected acquisition, California-based Chiron.