Company tells researchers to look to profits

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After a decade of freedom, researchers at the NEC Research Institute (NECI) in Princeton, New Jersey, are now under pressure to conduct research directly relevant to NEC's core business.

When the institute was set up by the electronics and information technology giant in 1989, its blue-skies policy and generously funded laboratories attracted top academic physicists and computer scientists from all over the United States.

But as part of a trend towards more business-oriented research at corporate and university laboratories, NECI changed its mission statement in February to emphasize its shift towards application-based projects.

The research staff of 70 are now receiving feedback from the administrative centres in Tokyo and Princeton about what areas should be prioritized. Changes have already been made to some research programmes — and it is an open secret that some key staff are seeking jobs back in the academic world.

"I've asked the scientists to spend the majority of their time on something with a business connection," says NECI president David Waltz, adding that the institute is still pursuing basic research in potential high-

pay-off areas such as bioinformatics and quantum computing that are 10 to 20 years from commercialization. Research projects will still be proposed and evaluated by NECI's scientists, he says. "NEC will not micromanage the institute." Although this year's budget for the laboratory has been held flat, he says, the institute will be hiring more staff this year.

The change in mission statement was one of a series of moves by the institute and NEC to focus more on research related

to core businesses. Over the past three years, the institute has shifted its emphasis towards computer science and away from the physical sciences, and NEC now offers financial incentives to encourage scientists to carry promising research towards commercialization.

"The changes make for a more uncertain and fragile environment," says William Bialek, a senior NECI scientist who left a professorship at the University of California at Berkeley to join the institute in 1990.

Scientists say it is still too early to see any effects of this change in mission, although some say they are actively "re-examining their career options".

Similar changes have been made at NEC's other research facilities in Japan. Last year the lab in Tsukuba moved its material scientists from basic research into development, says Jun'ichi Sone, the lab's senior manager. It is now concentrating its fundamental research in three areas: nanotechnology, quantum communications and biotechnology.

A decade of research without having to worry about an immediate impact on NEC's profitability was, perhaps, "anomalously good," says Bialek, a neurophysicist. "Maybe now it's becoming a bit more normal." ■

Europe's biotech industry still losing to US, say analysts

Quirin Schiermeier, Munich

The European life-sciences industry has shown a "dramatic improvement" in its financial state, according to a report from a leading business consultant. But despite this, the report says the Atlantic divide in biotechnology is widening.

Integration: Ernst & Young's Eighth Annual Life Sciences Report 2001 says biotechnology companies in Europe last year raised almost 6 billion euros (US\$5.3 billion) on the stock markets, and a record 39 companies went public, offering their shares on the market for the first time.

The United States has fewer biotech companies than Europe, but they are larger and richer. The 1,273 US companies generated revenues of 23.75 billion euros last year, compared with 5 billion euros generated by Europe's 1,570 companies.

For the first time, Germany has taken pole position in European biotech — at least in its number of companies. Germany (330 companies) is followed by the United Kingdom (270), France (180) and Sweden (170). But strongest is the United Kingdom, with its companies contributing almost half of the pan-European revenues in

biotechnology. Many of the young German companies are still growing, and the total number is likely to fall over the coming years through mergers and acquisitions.

Last year, European biotech companies increased their spending on research and development by almost 50%. Net losses, however, increased at almost the same rate.

Public investment in genomics has made biotech a cornerstone of knowledge-based economies in Europe, according to Ernst & Young. "There are some excellent companies with world-class leadership and unbeatable technologies," the report says.

But the consultants warn that the European biotech sector is still moving too slowly compared with its US counterpart. They attribute this primarily to Europe's lack of a true single market and to a "different investors' mentality".

"US investors seem much more willing to provide the hundreds of millions of dollars needed to grow companies aggressively into jumbo-sized packages," says the report. The entire European public life-sciences industry is only slightly larger than the US biotech giant Amgen (see graph).

And size matters, says the report. "If

there are companies in the US trying to solve the problem with five times the resources it's not difficult to imagine who will get there first in most cases." ■

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