ty, says that the story deserved its front-page slot. "Something newsworthy has been found," Kornberg said, although he added he would have preferred the story to have been "a little more cautionary".

Watson and Klausner later toned down their remarks. Watson, in a letter to the newspaper published on 7 May, said "my recollection of the conversation [with the *New York Times* reporter] is quite different". But in the letter, he calls the work "the most exciting cancer research of my lifetime".

Wendy Goldstein, a spokeswoman for the Cold Spring Harbor Laboratory on Long Island, where Watson is president, said Watson was contesting the quotation attributed to him "because he feels a statement from him has offered what could very well prove to be false hope to a great many people".

The *New York Times* says it stands by the Watson quotation. But on 8 May it admitted it had imprecisely paraphrased Klausner by using the words "The National Cancer Institute has made the drugs their top priority" to describe his statement "I am putting nothing on higher priority".

In the *Los Angeles Times* of 6 May, Klausner — who could not be reached later last

week — sounded a cautionary note, saying "We have cured mice of cancer for decades — and it simply didn't work in humans."

Scientists argued last week that nothing in the *New York Times* story was news to those in the field. Folkman's early results with one of the substances, endostatin, in a particular mouse lung cancer were published in *Nature* last November (see 390, 404; 1997), and he has discussed results with both substances in scientific meetings for 18 months.

Nevertheless, the day after the news story appeared, shares in Entremed, the small company in Rockville, Maryland, founded to make the drugs, soared from \$12.06 to more than \$80 before closing at \$51.81. (They fell back to \$33.25 by the end of the week.)

Two other biotechnology companies Sugen and Magainin Pharmaceuticals also saw their share prices rise by 20 per cent and 38 per cent respectively. Both are working with similar compounds — known as angiogenesis inhibitors because they stop the growth of new blood vessels. But these compounds are already in human trials.

Biotechnology investors complain that the stock market's reaction damaged the industry. "It dilutes the impact of future

more definitive work by this company or others, and results in a potential misallocation of capital away from more proven treatments," says one New York investment banker, who calls the story "a bad thing for science and for biotechnology".

Experienced investors said the market's reaction — 23.5 million shares of Entremed were traded the day after the story was published — was driven by ordinary investors who engaged in momentum buying, in which people hurriedly buy a stock thinking that it may never be as cheap again.

Entremed's experience clearly stimulated some scientists into thinking about ventures of their own. David Nance, president and chief executive officer of Introgen Therapeutics, a company in Austin, Texas, that funds biotechnology start-ups, says that in conversations last week with researchers, all wanted to know: "If we go public fast, and publish this animal data showing this, is it worth a billion dollars these days?"

He told them "don't be ridiculous". Perhaps, he says, "if they were Nobel candidates and had reputations like Dr Folkman, maybe this would happen again in history. But don't count on it."

Meredith Wadman

EPA laboratories are 'still struggling' with change three years on

[WASHINGTON] Three years after the US Environmental Protection Agency (EPA) revamped its network of research laboratories, the labs are still struggling with the change, says the agency's Board of Scientific Counselors (BOSC).

Of particular concern is the scientific workforce, which it says is stretched thin and in some cases unsuited to its new tasks.

BOSC, set up in 1996 to advise EPA's Office of Research and Development (ORD) on its programmes and research agenda, relied mainly on written self-assessments by laboratory managers together with brief site visits by board members for its report.

Despite the speed with which BOSC worked — the review took only a few months — EPA science managers who have read drafts say they are impressed with its perceptive analysis. The final report goes to Congress and ORD this week.

BOSC looked at ORD's three national laboratories, each with dispersed divisions, and its two Washington-based 'national centres': the National Center for Environmental Research and Quality Assurance (NCERQA) and the National Center for Environmental Assessment. All are part of ORD, which conducts more than 80 per cent of EPA's research and has a budget of \$570 million this year.

Of the three main laboratories, the National Health and Environmental Effects Research Laboratory (NHEERL) has adapted best to ORD's new emphasis on risk-based

research, increased extramural grants and more rigorous peer review.

But reorganization has left the National Exposure Research Laboratory (NERL) short of scientific talent. In five years, it has lost half its budget, 28 per cent of employees and 45 per cent of contract researchers.

Now, says BOSC, the laboratory is "not self-sufficient in personnel and/or funding to carry out many of the large-scale research programs that fall under its mandate". Morale at the NHEERL improved after the reorganization; at NERL it "has not created any scientific excitement" and has not changed research methods.

Also facing manpower problems is the National Risk Management Research Laboratory (NRMRL) in Cincinnati, Ohio, which focuses on environmental cleanup and pollution prevention. The laboratory has skilled environmental engineers, says BOSC, but lacks many other professionals, from economists to microbiologists to behavioural scientists, needed for a broader role in risk assessment and management.

In recent congressional testimony, BOSC's chairman, Costel Denson, the University of Delaware's vice provost for research, said EPA needs "an orderly plan and program to enhance or redirect the skills of many of the scientists in ORD".

ORD managers recognize the need for new blood. The average age of its almost 2,000 employees is 48, and many are expected to retire in the next few years. EPA

asked the White House budget office for money to hire 200 postdoctoral researchers in 1999, but was granted enough for only 50.

Many EPA researchers feel hampered in collaborating with other scientists, the BOSC report says. They lack funds to attend meetings and believe — mistakenly, say ORD managers — that conflict-of-interest rules prevent them from interacting with outside scientists supported by EPA research grants.

Most of these grants are administered by the NCERQA under its Science to Achieve Results (STAR) initiative, which has grown in a few years from \$20 million to a \$100 million-a-year programme. This rapid growth, although considered positive, has taken its toll on NCERQA staff.

Grant administrators say workloads have increased so much that "they are now unable to dedicate the desired level of attention to the technical content of the research", the BOSC report says. NCERQA plans its own review of STAR this year.

But more than reviews, ORD needs money, says the agency's Research Strategies Advisory Committee. In an April report to the EPA administrator, Carol Browner, it pointed out that ORD's 1999 budget request was the lowest of the decade when adjusted for inflation. This comes as several major research projects are starting, including studies of particulate matter, endocrine disruptors, and microbial pathogens in drinking water.

Tony Reichhardt