

Cell culture media

Contamination at Flow Labs

BIOLOGICAL researchers throughout Europe will return from their summer holidays to find some bad news on their door-mats. Flow Laboratories Limited, of Scotland, one of the major suppliers of liquid cell culture media, have notified 179 British customers that media supplied between March and May of this year may have been contaminated with the mycoplasma bacterium *Acholeplasma laidlawii*, better known as a contaminant of tissue cultures introduced from biological sources. In mainland Europe some customers have been informed and others are in the process of being traced. Twenty-five batches of 18 culture medium types are affected, representing about 12½ per cent of the company's sales over the period.

The company first discovered the bacterium in its own tissue cultures in March, but did not suspect the liquid medium as the source of contamination. A company spokesman said it had been slow to trace the source because "at first we simply couldn't believe it". Problems with *Acholeplasma* usually arise from contaminated fetal calf serum or through the use of mouth pipettes, but in this case the water supply was responsible: the company says its water supply has deteriorated in quality during the past year.

Flow Laboratories emphasizes that the decision to notify customers was taken as soon as the test had been confirmed by an independent laboratory, even though no complaints had been received. The considerable delay between the first detection of contamination and notification was due

to the hundreds of batches which had to be tested and the need for independent verification. The company says its water was purified by deionization, but that since the contamination problem was detected a stage of reverse osmosis has been added. In addition, filter pore sizes have been reduced from 0.2 µm (considered adequate to remove most bacteria) to 0.1 µm and all batches are now being tested specifically for *Acholeplasma*. This effectively ensures that further contamination cannot occur, although the company admits it could be seen as "shutting the stable door after the horse has gone in a big way". One competing manufacturer of culture media commented that testing for mycoplasma in culture media is not standard practice, but contamination would have been impossible had Flow distilled its water.

For customers who received contaminated media, the problems are most likely to be with long-term cultures, from which experimental results will be, to say the least, questionable (or according to one scientist, "totally useless"). Most of the affected media have been used in pure research, although it seems possible that some were used for virological diagnosis. The company is offering to replace all contaminated stocks free of charge, and says many customers have responded gratefully to this offer, although the majority has not yet replied. Some individuals are considering seeking compensation as well as replacement of the affected media by Flow laboratories.

Tim Beardsley

Biotechnology

Genetic patents, the old

Washington

THE Cohen-Boyer patent, for the basic process of genetic manipulation of bacteria, was thrust back into the limelight with the filing of an unusual petition seeking to reopen to public view the Patent Office's action on the pending application. Although patent applications are by law confidential, Stanford University and the University of California originally waived their right to secrecy. Then, in the wake of unfavourable publicity over several potential flaws in the patent application last year, and the Patent Office's tentative rejection of the application, Stanford abruptly ordered that the file be closed to the public, citing "erroneous public impressions" that had resulted (see *Nature* 300, 568; 1982).

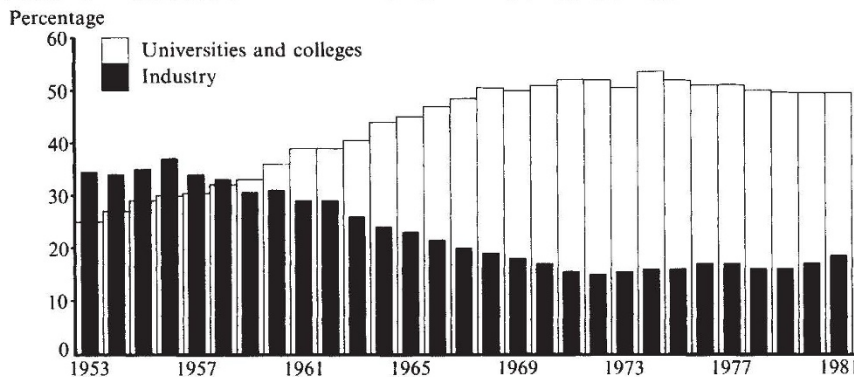
The issue has become an extremely touchy one for several reasons. Seventy-three companies have already paid Stanford a total of \$1.4 million in licence fees on the first Cohen-Boyer patent, which was granted in December 1981 and which covers the basic process for inserting foreign DNA into bacteria. The potential flaws in the second patent — the one now pending, which covers the transformed bacteria — could invalidate the first patent as well. Licensees have been chary of continuing to pay \$10,000 a year in fees to Stanford; other companies are uncertain about whether to take out licences. And although Stanford promised to keep its licensees informed of the progress of its pending application, licensees have reportedly not been permitted to keep copies of the "office actions" issued by the Patent Office. These documents frequently raise objections to the claims in a pending application and give an indication of which way the Patent Office is leaning.

The petition filed last week to reopen the process to public view came from a Washington law firm, Wegner & Bretschneider, which has represented a number of biotechnology companies in patent matters. Barry Bretschneider would not identify who he was representing in filing the petition, nor even whether his client was a licensee of the first Cohen-Boyer patent. He did note the dissatisfaction that licensees have expressed over not being kept fully informed and said that Stanford and the University of California "must only have had one motive in mind [in closing the file], namely to cover up something going on here".

Bretschneider said the only justification under the law for the secrecy of a pending application is protection of trade-secret material; by giving access to the file initially, Stanford had already exposed any such information. "You can't put Humpty-Dumpty back together again", he said.

Bert Rowland, the attorney representing

Basic research in the United States



SPENDING on basic research by industry and by academic institutes in the United States between 1953 and 1981 as a percentage of total support for basic research.

In terms of 1972 dollars, spending on basic research by industry has remained roughly constant since 1960, with a small peak of around \$215 million in 1965-67. In contrast, spending by universities and colleges has risen dramatically from less than \$200 million in 1953 to more than \$1,600 million in 1981.

In 1981, US basic research was supported by the federal government, largely through the universities and colleges (67.8 per cent), by industry (17.3 per cent), by the academic research institutes themselves (9.8 per cent) and by other non-profit making institutions (5.1 per cent). Source: *Trends to 1982 in Industrial Support of Basic Research, National Science Foundation Special Report.*

Melanie Kee