

## COMMON MARKET

## BRITAIN AND IRELAND STALL EEC RESEARCH

LONDON—A sustained rear-guard battle by Britain and an Irish court-imposed referendum are hindering the plans of the European Economic Community (EEC) to bolster European research and development in biotechnology. By the end of April, Britain was alone but still determined in its opposition to the size of the outstanding five-year budget for European research—of which biotechnology would be a part—and frustrated EEC officials were exploring the possibility of going ahead without Britain. Concurrently, it also seemed that the EEC treaty change upon which the European Commission has based its proposed plans and budget for a "framework" program of research and development was to become subject to the approval of a referendum in Ireland.

The new budget is to cover the period 1987–1991, for which the European Commission had originally suggested a sum of about \$10 billion, almost three times the expiring budget. Faced with strong opposition from France, Britain, and West Germany, the commission reduced its target to \$8 billion last summer. Despite lobbying and threats, matters stood there until this spring when, Britain apart, both sides started moving toward a compromise. By mid-April a budget of around \$6.5 billion seemed acceptable to all countries except Britain, which was refusing to shift from its \$4.5-billion proposal.

The British proposal amounts to only a slight increase in real terms on the expiring budget, which was supposed to be only an experiment. Clearly, the British view is that the experiment has not been a great success. The main criticism emanating from the Department of Trade and Industry—where Geoffrey Pattie is the minister responsible for national and EEC research—is that the research has been unfocused and poorly monitored.

A more specific criticism of the biotechnology research is that there has been very little industry involvement to date and that there is little evidence of more involvement in the framework proposal. As an increase in the British contribution to EEC research is almost certain to be at the expense of national spending, the department feels such an outlay should be resisted if the effect is to spend more money on academic research at the cost of forging fewer links between British academic research and industry.

Not surprisingly, there is little sympathy within the EEC for the British position, not least because agreement on the framework program is the first political test of power sharing under the Single European Act, the treaty reform negotiated by EEC governments 18 months ago. Ironically, the new act is meant to streamline decision-making by requiring unanimous approval only for framework proposals; division of an approved budget among individual programs, such as biotechnology in the research framework, could be made by majority decisions.

Because of this, it is impossible to know what proportion of the framework budget will be awarded to biotechnology. Indeed, the proportion may depend on the size of the final budget. Nor is it possible to gain much idea of the biotechnology projects that would be supported, although they will include not only basic research but also technical support and training, technology transfer, risk evaluation, and the collaboration

of biotechnology with information technology and agriculture.

One suggestion has been that an immediate use for framework money would be to finance the best of the failed applications to the EEC Biotechnology Action Programme, whose \$90-million budget for 1985–1989 was greatly oversubscribed. But as those applications age, the idea loses its appeal, concedes Mark Cantley of the EEC's Concertation Unit for Biotechnology in Europe. Moreover, Spain and Portugal have joined the EEC since then.

In any case, a new shadow hangs over the framework proposal in the form of a decision in April by the Irish Supreme Court. The decision requires that a referendum be held to seek approval of the part of the Single European Act that ties Ireland to EEC cooperation in foreign policy. In the unlikely event that approval is not forthcoming, the whole Act might have to be renegotiated, perhaps putting even the notion of framework schemes on ice. —Peter Newmark

## CELL CULTURE

## FETAL BOVINE SERUM SHORTAGE

NEW YORK—The shortage of fetal bovine serum (FBS) continues, with no let-up foreseen until autumn at the earliest.

According to M. James Barrett, who recently resigned as president of Life Technologies Inc. (LTI, Gaithersburg, MD), supply of this key media supplement first tightened back in mid-January. Poor weather in the Midwest meant that ranchers brought fewer cattle to market; concurrently, demand from industrial concerns has been increasing as they advance into production modes. LTI has been trying to meet its customers' needs fairly, says Barrett, but the firm simply can't supply all the serum biotech companies desire.

As just a minor participant in the cattle industry, FBS suppliers can do little more than passively observe its approximately seven-year-long cycles. With meat prices now high and ranchers holding back calves as breeding stock, the number of pregnant cows going to slaughter has dropped dramatically. Barrett says such activity usually increases around mid-October, and this could provide some relief.

Other FBS suppliers include K.C. Biological (Lenexa, KS, now a part of Corning Glass Works), Hazleton Biotechnologies (Vienna, VA, purchased

by Corning in May of 1987), Wittaker Bioproducts (Walkersville, MD), and Flow Laboratories (McLean, VA). They too are having trouble filling orders completely, with best customers receiving priority treatment. "We can't get enough serum to meet all the requests," says Michael Adams, product manager at Wittaker Bioproducts. He reports that the price he pays to the slaughterhouses has risen some 50 percent since the end of February. Much of this increase has been passed on to the consumer.

Lew Parker, president of Hazleton Biotechnologies, stresses that collecting FBS is manpower-intensive, and that quality-control tests must be run on each lot. Thus it has only made economic sense to collect at the larger kill sites. But as the price continues to soar, he sees collectors tapping into smaller operations as well.

Consumers do have recourses. One option is to use more serum-free or reduced-serum media. This approach works best once the firm has chosen the specific cell line for a particular product. A second alternative is to switch from FBS to calf or horse serum. "But for reasons that are still a mystery," says Barrett, "fetal bovine serum is still the best growth supplement for growing cells."

—Arthur Klausner