

## Pharmaceuticals in Britain

**Drug list clouds foreign interest**

DESPITE the recently announced decision by the Swedish pharmaceutical company Astra to develop a £2.5 million research facility in London, the climate for investment in the United Kingdom by non-British pharmaceutical companies remains poor. The chilly conditions are caused by the industry's lingering irritation over the "limited list", a scheme introduced by the British government over a year ago that determines which drugs the National Health Service (NHS) will pay for.

Pharmaceutical companies are still smarting from what they feel was an arbitrary decision to implement the limited list that effectively blacklisted certain drugs, and cut deep into profits.

Astra's plan to support the Neuroscience Research Centre at the Institute of Neurology, a part of the University of London, is a positive sign, but it is probably not the harbinger of a flood of new investments.

Before the introduction of the limited list, investment by industry in UK facilities was enjoying a fairly rosy period. The US company Merck Sharp and Dohme had established a £25 million Neuroscience Research Centre in Terling Park near Cambridge, the Swiss giant Sandoz had put up £7 million for a research unit with a staff of 50 at University College London and Parke Davis, the pharmaceutical division of US giant Warner Lambert, was building a £4 million facility on campus at the University of Cambridge.

Another US company, Wyeth, had "pens poised" to sign agreements for a £30 million research unit in Swindon, while its rival A.H. Robbins had just completed a new production facility at Langherst in West Sussex that was to be expanded to include a research facility.

But when the limited list was announced, the cries of anguish from the drug companies could be heard around the world.

Wyeth cancelled its plans for Swindon, Robbins sold off its Langherst plant, and Parke Davis made it abundantly clear that it would never have gone into the United Kingdom if it had known about the government's plans.

G.D. Searle also insisted that the closure of its High Wycombe facility was prompted by government pricing schemes, although corporate reorganization following the Monsanto takeover of Searle probably also played a major role (see *Nature* 319, 251; 1986).

British-owned companies, by contrast, have come through the limited list ordeal nearly unscathed. On the eve of the public sale of 25 per cent of Wellcome plc, the

company reported its most successful year ever, although its rate of profit on British sales was considerably less than those in other parts of the world. Glaxo, too, has done well, and was able to step in to buy Robbins' Langherst production plant. According to Glaxo research director Alan Williamson, "the climate for research and development efforts in this country is still very good".

Glaxo's impression is hardly shared by foreign pharmaceutical companies. E.J. Fullager, UK chief executive of Sandoz, says the climate is still one of "uncertainty,

writ large". Unless things deteriorate substantially, Fullager says, Sandoz will continue to support its institute at University College, but he admits that Sandoz has been "disappointed" by recent government actions.

The government is aware of the disaffection it has engendered by the limited list. Health Department officials now say they are negotiating with the Association of British Pharmaceutical Industry (ABPI) on revisions to pricing schemes, "so that the industry might be offered a period of greater stability in its sales to the NHS".

But a spokesman for ABPI says "it will take a long time for the industry to forget what happened". **Joseph Palca**

## West German forests

**Deterioration, but some recovery***Munich*

THE 1985 Forest Damage Inventory, the results of which were published at the end of last year, shows only a slight deterioration of West Germany's forests since the previous year. It is now estimated that 52 per cent of the total forested area is affected by the "new type forest decline", compared with 50 per cent in 1984 and 34 per cent in 1983. Damage increased at higher altitudes and notably in the Alps, but there were also the first signs of recovery in some lowland areas.

The latest inventory of forest damage is the fourth of a series of annual nationwide damage assessments initiated by the federal government but carried out by the regional governments, the *Länder*. Only the 1984 and 1985 inventories are based on a comparable assessment and classification method. Assessment areas are defined by the nodes of a 4 × 4 km plot, where a specified number of trees is classified into five damage categories ranging from category 0 (undamaged) to 4 (dead). Damage classification is based on the extent of loss of needles or leaves, with the discoloration of foliage as a second criterion.

The much disputed damage category 1 (loss of needles and leaves between 11 and 25 per cent, compared with a reference tree) is for the first time being referred to as a warning stage rather than a clear damage stage. Concentrating on the subsequent damage categories 2 to 4, the overall change between 1984 and 1985 has been a slight increase from 17 per cent to 19 per cent of the total forest area.

Broad-leaved trees such as beech and oak are now showing the same degree of damage as conifers, which were first affected by the disease. In particular oak has deteriorated markedly, with 16 per cent of oak forests being classified as medium to severely damaged.

As in previous years, there is still a dis-

tinct north-south gradient, with the southern *Länder* of Bavaria and Baden-Württemberg most severely affected. There is now also much concern for the alpine forests, where damage increased from 34 per cent in 1984 to 53 per cent in 1985 (damage categories 2-4 only). The West German concern for highland forests is shared in Switzerland. The Swiss 1985 "Sanasilva" forest damage inventory revealed marked damage at higher altitudes compared with lowland forests; for forests at an altitude of 900 m or more, 11 per cent of all trees assessed were medium to severely damaged (the Swiss damage classification is comparable to the West German). This is seen as a major threat to villages and roads, which are often protected by forests against avalanches and floods.

In contrast with the deterioration of highland forests, there is a slight recovery of some lowland forests in Germany. There is also a slight overall recovery of pine, with a decrease in the medium to severe damage from 21 per cent to 17 per cent. This local recovery, and the relatively small increase in the overall damage when comparing the 1985 results with those of the previous inventories, is largely attributed to favourable climatic conditions.

The causes of the decline are still open to debate. Regional differences in the symptomatology and the time-course of the disease have led to the suggestion that the forest decline may not be a single disease, but a series of different disease types.

These disease types may have different causes, but there is probably a common synchronizing factor triggering their onset. As regions of different pollutant levels are equally affected, it seems plausible that this synchronizing factor is an overall climatic event such as drought or frost.

**Lutz W. Blank**