

Cancer research

Boom in new laboratories

FUNDAMENTAL cancer research in Europe is about to be strengthened by several new privately financed laboratories. One will be in Vienna and is jointly owned by Genentech, the Californian biotechnology company, and the West German chemical and pharmaceutical company Boehringer Ingelheim. The other four, and probably five, laboratories are new branches of the Ludwig Institute of Cancer Research, administered from Zurich.

Despite its commercial backing, the Vienna institute will be concerned only with basic research in the general area of molecular pathology, with a particular focus on oncogenes. First rights on any discovery of commercial interest stemming from the research are shared by Genentech and Boehringer Ingelheim. The German partner will foot the bill for the institute for its first five years, after which costs will be shared equally.

During the initial five-year period, Genentech's contribution is know-how, in terms of both the recruitment of suitable staff and the structure of the research programme. Just over half the cost of building the institute (in Vienna's third district) and 80 per cent of the running costs for the first five years will be met by Boehringer Ingelheim, with the balance coming from the city of Vienna and the Austrian government, eager to counter a Freudian past with a double-helical future. Various relevant university institutes, at present scattered around the city, are likely to be re-sited alongside the new institute.

Building work on what is likely to be called the Institute of Molecular Pathology will begin this summer. Shortly thereafter its director, Dr Max Birnstiel, will leave the University of Zurich for Vienna. Negotiations are already well advanced with some potential group leaders for the institute and enthusiasm for heading east is said to run high.

Those who prefer to head west or north may find positions in four new branches of the Ludwig Institute of Cancer Research. Two of these have begun operation in Sweden (in Stockholm, under Dr Ulf Pettersson and in Uppsala, under Dr Carl-Henrik Heldin) and two will start soon in London (at Middlesex Hospital Medical School, under Dr Michael Waterfield, and at St Mary's Hospital Medical School, under Dr Paul Farrell). Negotiations are under way for another London branch and Dr Webster Cavenee has just begun to direct a new Ludwig in Montreal's McGill University.

As a result, there are now 14 Ludwig branches consuming US\$33 million last year. There will now be a period of consolidation with no new branches, according to Mr Hugo Frei, chairman of the

board of directors, which is responsible for managing the assets provided by Mr Daniel K. Ludwig in 1974 in such a way as to produce sufficient income to finance the research programme. Each branch, of 20–80 people, is set up in cooperation with a hospital for an initial six-year period and is subject to review every three years. So far, the only branch to be closed was the previous London laboratory at Sutton (see *Nature* 318, 400; 1985) for

reasons that included its location, lack of patients and scientific shortcomings, according to Frei.

To judge by the new branches, Ludwig has little difficulty in attracting good directors despite the lack of guaranteed long-term support and a policy that sets salaries at local levels.

There is, however, some generosity in terms of capital expenditure. A recent board decision means that the US Research Corporation will handle the transfer to commerce of any potentially profitable discovery in a Ludwig laboratory.

Peter Newmark

Soviet education

University shake-up canvassed

A RADICAL reorganization of Soviet higher education is on the cards. In what is called a draft proposal, published last week, the Central Committee of the Soviet Communist Party says the time has come for curricula to be "retuned" and for the administration of higher education to be simplified. There should be more money for equipment and better salaries for professors. If implemented, the proposals will give universities a more prominent place in the pattern of Soviet research, at present dominated by academy and ministry institutes.

The theme of the proposals is familiar outside the Soviet Union, to arrange matters so that higher education contributes more fully to the national economy. But the breadth of what is proposed represents radical reform of many established practices and institutions.

The scale of Soviet higher education, with a total of 894 universities and other institutions of higher education, is huge. But, according to the Central Committee, the system is bedevilled by bureaucracy. Part of the trouble is the division of responsibility between the All-Union and republic governments, but ministries and departments also run their own institutions for training people with special skills, as in agriculture and medicine. Altogether, 74 ministries and departments are in some way involved, but 30 of these run only one or two institutions (called VUZy when they are not universities).

To meet the complaint that many production ministries and departments fail to provide suitable teaching staff and facilities for their institutions, the Central Committee proposes that the Ministry of Higher Education should have more control of VUZy run by other ministries. There would be regular checks of teaching standards and, because sectional interests have often led to the duplication of specialist courses and, sometimes, whole new VUZy, the system would be rationalized so that redundant courses and establishments would be gradually phased out.

Teaching is also to be overhauled. The Central Committee says that the present pay structure discourages the best scholars and scientists from making an academic career. It says that too much emphasis is placed on formal lectures and textbook knowledge, with the result that students are overworked, while the ratio of students to staff is far too high.

What the Central Committee wants to see is more teaching in small seminar groups (not more than 15 people), with more practical and laboratory work. The notion that each student should have an individual timetable and more choice of lecture courses is encouraged, and there is even a tentative suggestion that intending university teachers should spend a probationary period of two years in some part of the national economy in which their students may later work.

Recruitment into graduate programmes will centre on people seconded from industry or with work experience in their chosen field. Research for the degree of Candidate (PhD) will concentrate on "priority fields of science and technology" and efforts will be made to raise the ideological as well as scientific standard of research students. The possibility is canvassed that some universities and VUZy might offer courses leading to the degree of Doctor of Science, at present awarded on the basis of a second dissertation in the course of a professional career.

Apart from the threat of more direct control, the Central Committee's prospectus should be welcomed by Soviet universities and VUZy. More is to be spent on laboratories, libraries and computers. Students are to have better living conditions, and academics better pay. There is even talk of higher aesthetic standards for university buildings. In return, the universities and VUZy have to produce graduates of the type required by the "scientific and technical revolution" and also play a part in the intended "unified state re-training scheme for older generations of scientists".

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