

Exploiting a medical tradition

Kraków. The astronomer Nicolaus Copernicus may be one of Kraków's (and Poland's) best known scientists. But, as an early graduate of the university town's medical college, he is also part of a long tradition of medical teaching whose reputation remains high — and which his successors are now keen to exploit.

Last year's decision to return the medical school to the Jagiellonian University, from which it was separated by the communists in 1950, has not only strengthened links between clinical medicine and basic research, but also helped to establish a platform from which to attract funds from foreign pharmaceutical industries.

Biomedical researchers in Kraków are exploring ways in which the specific conditions they are able to offer — in particular, high scientific standards combined with lower labour costs, and more liberal regulations on the use of animals in research — can be used to attract funds directly from Western drug companies.

Central to this strategy has been the creation of the semi-private Jagiellonian Medical Research Centre, an organization that links research groups in the university's science faculties, its medical faculty



Przegaliński: 'costs less than elsewhere'.

and the Polish Academy of Sciences, Institute of Pharmacology.

One field of specialization is research on the cardiovascular system, the product of long-standing links with the pioneering work of Sir John Vane at St Bartholomew's Hospital in London which stem from an early visit by Vane to Poland.

Linked to this is a research capability in inflammatory responses.

The centre offers the facilities of the university and the institute to companies wishing to study the biological activities of new compounds, quantify their therapeutic strength, and study how they work. To this end, it has already raised \$300,000, including a grant from the Japanese pharmaceutical company Yamanouchi.

"It is a way of raising extra funds to allow young people to do research," says Ryszard Gryglewski, the president of the centre, who was once a student of Vane, rose to become rector of the medical school and now chairs the university's department of pharmacology.

Edmund Przegaliński, the director of the academy's pharmacology institute, says that his organization, which has had

long experience in working on the action of anti-depressant and other psychotropic drugs, now receives four to five per cent of its funding through contracts with Western drug companies.

"Costs are lower here than in other countries, while the level of research is not so different," says Przegaliński. But, anxious to retain the centre's non-profit status, he emphasizes that he and his colleagues "work only on drugs of interest to us from a scientific point of view."

Jerzy Vetulani, the scientific director of the institute centre outlines its strategy. "We realize that it is difficult for us to be at the forefront of any one science," he says. "But we have the methodological diversity to look at several factors in any one animal, for example to investigate both the behavioural and physiological effects [of certain chemical compounds] and then study brain samples of the same animal."

Peer review: a call for help

Warsaw. "If the West really wants to help Polish science, it should spend less money and effort on travel grants and fellowships, and more on refereeing grant proposals from Polish scientists," says a senior academic from the University of Warsaw.

One of the major changes since the fall of communism has been the introduction of a fully fledged research grants system. For the first time, Polish scientists — including those working in the institutes of the Academy of Sciences — are having to submit research proposals to the scrutiny of their peers.

But it is widely acknowledged that the system has shortcomings and is also open to abuse. Even Witold Karczewski, the chairman of the State Committee for Scientific Research (KBN), admits that there is only one other scientist in Poland qualified to review his own grant proposals.

A vigorous dispute is now under way on the merits of reviewing grant proposals outside Poland. Advocates of this approach argue that it would provide a neutral buffer against social pressures and ensure that the quality of Polish research was judged by international standards.

"Why cannot we do what they do in the Czech Republic, where all grant applications have to be accompanied by a summary in English," says Anna Grabowska, a theoretical chemist at the academy's Institute of Physical Sciences in Warsaw.

Officially, both the government and the academy of sciences are keen to encourage such links between research groups and private companies. Indeed, one of the goals of reforms being drafted by the academy is to provide institutes with greater freedom to enter into such arrangements, the Kraków institute is already planning ways of dedicating some of its laboratory space to studies funded by foreign pharmaceutical companies.

Psychologically, considerable hurdles remain. "In Poland, money is not something that we like to talk about," says one scientist involved in such contract research. "There is an idea about the purity of science, and people are not proud of doing contract research for Western companies."

Nonetheless given the lack of Western interest in funding Polish research for its own sake — and Polish industry's inability to do so even, if it were inclined — surviving on contract research from the West is likely to become an increasingly important strategy for many laboratories. **D.D.**

But there are also opponents of the scheme, particularly, it is said, those who might be embarrassed by the comments of Western colleagues on the quality of their research, and who dress up their fears by claiming that grant proposals sent abroad risk being plagiarized.

As with other reforms, Karczewski is now moving cautiously. While encouraging scientists to send projects for foreign review, and describing fears of plagiarism as "ridiculous", he also admits that "I have to play it quietly."

"We could be successful if we gave top priority to those who agree to be reviewed abroad," says Karczewski. "But I do not want too many restrictive regulations."

Some are growing impatient, and criticize the staff of the KBN for their apparent unwillingness to require all grant proposals to include a summary in English, explaining their reluctance on a lack of Western contacts.

"KBN staff complain that they do not know the names of Western reviewers," says Adam Łomnicki, professor of environmental biology at the Jagiellonian University in Kraków, and a strong proponent of tough peer reviewing. "But if they do not know who are the experts in the West, there is something wrong with them; they are not real scientists."

Many realize that the foreign review of grant proposals is widely seen to be one of the quickest ways of helping Polish science pull itself up by its bootstraps, provided the right mechanisms — and political support — can be found. **D.D.**