

OLD WORLD

PASTEUR INSTITUTE

Monod's New Parish

Paris, May 11

THE Pasteur Institute seems not yet to have escaped from its difficulties of the past few years. For some time, it has been short of money, racked by internal conflict, while its enterprise in manufacturing vaccines has been increasingly coveted by private industry. The appointment of a new board of directors has helped to take off some of the strain, and the appointment of Mr Jacques Monod, the Nobel prize-winner, as the new director has been a great encouragement to the institute. But now, as luck will have it, the institute finds itself threatened by another crisis, the difficulty of finding room in which to grow.

The issue was brought to a head on May 5 at a public meeting called by the Comité Central d'Entreprise, the constitutional body which is elected by employees of the Pasteur Institute. The issue that now disturbs the institute stems from a comparatively simple administrative problem. Although most of the research has traditionally been carried out in central Paris, it seems to be acknowledged that the Pasteur Institute needs extra space for its production plants and for some time it has been planning to erect several new buildings on a 100 hectare site at Rennemoulins, in the suburbs.

This proposal has fallen foul of the French Government's regional planning unit, the champion of planned dispersal from Paris and its suburbs, which argues that the Pasteur Institute should put its production facilities at Louviers in southern Normandy. The institute complains that this town is a long way from airports and railheads and a thoroughly inconvenient place from which to ship vaccines to the four corners of the Earth when there are epidemics. The institute is, moreover, disinclined to spend roughly Fr.8 million (about £600,000) on a site and to train the staff needed to replace those of its present employees who would decline to move 75 kilometres west.

The Pasteur Institute has won support in its struggle to stay near Paris from the Ministry of Social Security and Public Health, the Opposition in Parliament and a substantial part of the Government party. It has now appealed directly to the President, Mr Georges Pompidou, and to the Prime Minister, Mr Jean Chaban-Delmas. Then, making the fullest use of its reputation, the institute is appealing directly to the public.

The latest crisis has been building up

while Mr Jacques Monod has been trying to concentrate on the improvement of the institute's long-term financial prospects, and particularly on the possibility of recovering some of the ground lost to private industry in the past few years in the manufacture of pharmaceutical materials. The immediate objective seems to be the development of new products, the working out of a more aggressive commercial strategy and the strengthening of the institute's several research departments, especially so as to avoid duplication. There is also the prospect that the institute might increase the scale of its business, on the success of which the survival of the research departments depends. It is also hoped that it will be possible to arrange licence exchange agreements with the Wellcome Foundation in the United Kingdom and the Rockefeller Foundation in the United States.

SOVIET RESEARCH

Where to Push Next

from our Soviet Correspondent

THE directives for the new five-year plan of the Soviet economy, published last February, contained a broad scheme of basic and applied research projects for the next five years. Unfortunately, the proposed outlines are so all-embracing, and the fields of research so diverse—from cybernetics to geochemistry and from semiconductors to the genetics of hereditary diseases—that it has proved virtually impossible to conclude from the directives what will be the chief lines of Soviet research in the next half-decade. Nor did the speech of Academician Mstyslav V. Keldysh, President of the Academy of Sciences, to the Twenty-Fourth Congress of the CPSU, greatly amplify the position, concerned as it was chiefly with a review of past achievements, and general hopes for future successes. Perhaps the most concrete indication of policy which could be drawn from his speech (see *Pravda*, No. 92, 1971) was his emphasis on the serious deficit in the production of scientific instruments and the need for an acceleration of output in this field, with the implication that unless a considerable improvement is obtained, this lack could well bedevil the whole plan for the expansion of science and technology.

Now, however, addressing the May meeting of the Academy of Sciences, Academician Keldysh has given some clear indications of which research projects will bear greatest emphasis within the context of the current five-year plan. According to Soviet planning theory, all research is to be closely linked with

its ultimate practical application. "In planning the development of science, we must constantly have in view that the functions of science in the development of contemporary society are exceptionally broad and a manifold complex of questions . . . rests on the whole system of the social and natural sciences."

More specifically, in implementing the general directives, special emphasis is to be placed on cybernetics in all its ramifications—information processing, the technology of automation and control and the development of computers, especially for planning purposes. Research in physics is also to be emphasized, with special attention to solid state physics, electronics, radio-physics and nuclear research. Fuller use is to be made of existing high-energy accelerators and the experimental basis of medium-energy nuclear physics is to be "strengthened". Plans for space research (Keldysh's own particular field of interest) are fairly vague, but the significance of the *Salyut* project is stressed, and plans for further study of the Moon and planets by automatic spacecraft are indicated. (There is no mention of manned missions beyond Earth-orbit.)

In general, the implementation of the directives seems to fall chiefly upon physical and mathematical research, save for the emphasis, yet again, on the need for more "rational" use of natural resources. Russian textbooks traditionally describe the Soviet Union as the "richest country in the world in natural resources", and under earlier plans, it was tacitly assumed that these resources were inexhaustible. The past few years have, however, shown a considerable reversal of this attitude, and Academician Keldysh, in his address to the academy, reiterated the five-year plan directives yet again in emphasizing the attention to be paid to study of the mineral, agricultural and water resources of the Union as the basis for further economic planning and the development of the country.

NUCLEAR POWER

Dangers of Proliferation

CONCERN for the spread of gas centrifuges brought together thirty-four people in London on May 7 to discuss their fears under the auspices of the J. D. Bernal Peace Library and the British Society for Social Responsibility in Science. They were worried chiefly about the consequences for non-proliferation if ultracentrifugal methods of producing enriched uranium, which have been under development since 1946, are widely adopted. One of the