

German molecular biology

New centre is launched

Heidelberg

DESPITE an attempt to burn it down before it was occupied, and still under makeshift leadership, the Centre for Molecular Biology of the University of Heidelberg (ZMBH) has begun to fill up and is heading confidently for its official inauguration in November.

ZMBH has its origins in the decision of the German chemical company Hoechst in 1982 to invest US\$ 50 million into a new department of molecular biology at Massachusetts General Hospital in Boston. Stunned by both the sum of money and its export to the United States, University of Heidelberg molecular biologists persuaded BASF, best known for cassette tapes, to provide the seed money for ZMBH. The state of Baden Württemberg then chipped in with a building and salaries for 30 technical and administrative staff and the federal ministry of science and technology (BMFT) provided financial support to ZMBH as the first of four national gene centres.

Built in the shadow of the German Cancer Research Centre, which has about 60 per cent of its 1,200 staff in permanent posts, ZMBH with 200 staff will give tenure only to eight or so senior scientists, not all of whom have yet been recruited. Though full professors of the university, their teaching load will be a quarter of the standard eight hours a week, which is possible because ZMBH has the status of a central institute of the university, like the botanical garden. They will, nonetheless, take both graduate and postgraduate students.

Research funds will come from three core grants, the biggest one of which has been approved in principle by BMFT and will be worth at least DM6 million for each of the next four years. The other two grants are in the form of *Sonderforschungsbereich* support from the German Research Society (DFG). One grant, for neuroscience, has been approved. The other, for gene expression, is expected to be approved soon following a site visit two weeks ago.

BASF's contribution of an annual DM1 million for ten years seems in part to be slush money. It is likely, for example, to help provide a sufficient salary to lure to ZMBH a senior German scientist in a leading US biotechnology company. In return for their support, BASF gains only the right to attach two of its researchers to ZMBH. Merck (of Darmstadt), who have recently agreed to provide a smaller sum of money, will be allowed one attached scientist in return.

Despite various ambitions, there is no director of ZMBH and it is not clear if one will emerge. Initial attempts to sort the matter out were confounded by possible conflicts of interest when some of the

candidates founded a biotechnology company (there is now a rule that industrial involvement is acceptable as long as it does not include membership of an executive board). At present there is a directorate of five senior staff with Professor Heinz Schaller as their elected "speaker". But with the imminent arrival of Hermann Bujard, one of the initiators of ZMBH and presently at Hoffman-LaRoche in Basle, it seems likely that the directorate will be slimmed down and that Bujard, or perhaps Schaller, will head it.

Above the directorate is the rector of the university who is assisted by a scientific advisory board. The board, which is international, advises on senior appointments and the scientific programme of ZMBH.

As long as there is no repeat of the bungled attempt to burn down the building — a fuse foiled the unknown arsonists, who seem to have been driven by a gene phobia — ZMBH should be a good showplace for the University of Heidelberg as it celebrates its 500th anniversary next year.

Peter Newmark

China chases share in Eureka

Beijing

THE People's Republic of China seems anxious to play some part in Eureka, the French inspired programme of collaborative research and development in high technology. So much became clear at the end of last week, during meetings between a French delegation led by M. Hubert Curien, the minister of research in Paris, and officials of the Chinese government.

Members of the French delegation said they had been surprised at the way in which the Chinese side had brought up the issue of participation early in the talks, which among other things covered collaboration in biotechnology. Precisely how China might play a part in Eureka was by no means clear but in circumstances in which the French enthusiasm has not been matched by that of other European governments, the chances are that some way will be found.

Meanwhile, Chinese researchers are intrigued that one of them, Professor Guang Zhao, was promoted to become a member of the Central Committee of the Chinese communist party at last week's national meeting, that at which veteran members of several party organs were replaced by somewhat younger people.

Professor Zhao, once head of the Beijing Institute of Theoretical Physics, is 56, and is believed to be the intended successor of Professor Lu Xiang, now president of the Chinese Academy of Science.

John Maddox

Rural India

Longer life for thatched roof

New Delhi

INDIAN scientists engaged in improving the lot of the rural poor have found a simple, cheap and effective method for extending the life of the perishable coconut leaf thatch and making it fireproof. Coconut leaf (with a world production of 42 million tonnes) is a major roofing material in the tropics, and in India alone some 38 million houses are thatched, as well as thousands of cinemas and schools. The thatched roofs normally need replacement every year, but their life span has now been extended to four years by treating the thatch with chemicals that are neither washed away by rain nor degraded in sunlight.

"The use of treated thatch will lead to enormous savings in materials and labour", says Dr C.K.S. Pillai, a polymer chemist at the Regional Research Laboratory (RRL) in Trivandrum, in the state of Kerala. During a five-year research project, Pillai and his team found that coconut leaves deteriorate due to rain, alternate wet-and-dry cycles and more importantly due to attack by fungi entering through the stomatal openings of the leaves. Five types of fungi were isolated from decayed thatch and were subsequently identified by the Commonwealth Mycological Institute in London. So Pillai attacked the problem by coating the thatch with a combination of fungicide and a water repellent.

In the process recommended by RRL, copper sulphate is used as a fungicide because it is cheap. The chemical is dissolved in water and sprayed on both sides of the thatch, or the thatch is dipped in copper sulphate solution and dried. The dried thatch is then sprayed on both sides with a liquid extracted from the shell of cashew nuts (CNSL) and mixed with kerosene. CNSL, a by-product of the cashew nut industry, is an excellent water repellent besides being cheap. Trials conducted by Pillai have shown that roofs made of treated thatch survive for four years while untreated roofs, under similar conditions, collapse in 12 months.

Chemically treated thatches are now being used on a large scale in Mitrani Ketan village in Kerala, and other villages are catching up with this new technology.

Although the copper sulphate/CNSL combination extends roof life, it does not provide immunity to fire. To make the thatch fireproof, the RRL team converted CNSL into its phosphorylated derivative — an excellent fire retardant — by heating CNSL with phosphoric acid. A coating of copper sulphate followed by spraying of phosphorylated-CNSL is recommended by RRL to give added life to thatch as well as to protect it from fire.