Improving Liaison

THE Vice-Chancellors Committee of the Confederation of British Industry (not to be confused with the Committee of Vice-Chancellors and Principals) has set up a working party under the chairmanship of Mr P. Docksey, Research Director of B.P. Ltd., to look into relations between universities and industrial research. Its terms of reference are "to study the existing relationships between universities and industry in the field of research, and to make recommendations".

Industrialists—and others—have a sneaking suspicion that much of the universities' research work is wasted. The decision to set up the working party reflects this concern and also the feeling that too few university graduates enter industry. It was prompted by the Sutherland report on relations between universities and Government research establishments. In addition to the chairman the working party consists of Dr A. A. L. Challis, Laboratory Director, I.C.I., Runcorn; Dr T. L. Cottrell, Principal of Stirling University; Dr K. Mather, Vice-Chancellor of Southampton University; Dr J. A. Pope, Director, Mirrlees National Research Division; Dr J. S. Tait, Vice-Chancellor of The City University, formerly Northampton College of Advanced Technology; Mr T. A. Uthwatt, Director of Research, Mather and Platt Ltd.; and Dr F. A. Vick, Vice-Chancellor of the Queen's University, Belfast. Mr R. C. Griffith of the UGC, Mr J. Knox of the Ministry of Technology and Mr C. Jolliffe of the SRC will attend as observers. Also in attendance will be Dr A. V. Cohen of the DES, and Mr P. M. Knowlson of the CBI, who will act as secretary to the working party.

Among the areas covered by the working party will be collaboration between universities and industry, the educational need of the industrial research worker and the role of joint appointments. They will also investigate ways of improving universities' understanding of industry's needs and of making industry fully aware of university research. It is hoped that the working party will produce its report by the end of the year.

ELDO Frustrated

IF the ELDO launchings are any guide, the weather in Australia does not seem to be all that the immigration authorities pretend. The partially successful launching on August 4 was the eleventh attempt to launch *F*6/1 from Woomera and most of the delays were caused by bad weather.

The purpose of the launching was to test the separation and ignition of the French second stage, Coralie, from the British first stage, Blue Streak. So far as is known, the French second stage separated but did not ignite. The reason given for the failure is that some of the components had waited so long to be launched that they were approaching the end of their design life.

It is not expected that this partial failure will hold up the programme and the *F*6/2 launching is expected in early November. ELDO hope to gather the additional information on the ignition of the second stage from this firing. At the same time, *F*6/2 firing will test the separation of the German third stage from the second stage. The *F*7 launch will be a test firing of the complete Europa 1 vehicle and is intended to inject a test satellite into orbit; it is still scheduled for mid-1968.

A Rose by Any Other Name

CERA, the Civil Engineering Research Association, announced recently that it has changed its name to CIRIA, Construction Industry Research and Information Association. Its scope now includes research into all aspects of construction, and with the new terms for the grant to the association from the Ministry of Technology, money devoted to research will effectively double and that spent on information will effectively treble. The association's income in 1966 was almost £200,000 and with the promise of extra subscription already made by contractors, the new grant terms are expected to bring the association's income initially to about £300,000.

Under the new terms of the grant, the association receives £1 grant for every £1 raised on most of their industrial income, as long as it reaches £136,000 a year, with a maximum grant of £300,000. During 1966 the association spent £152,175 on direct projects. Among the projects supported was £14,398 for wind effects on buildings and other structures, £10,000 on striking of formwork, and £8,295 on criteria of concrete strength.

Uncorking an Enzyme

from a Correspondent in Molecular Biology

THE activation of zymogens is known to involve the enzyme cleavage of one or more peptide bonds, and the generation of an active enzyme by this mechanism has sometimes been referred to as "uncorking". The most intensively studied activation of this type has been the chymotrypsinogen–chymotrypsin conversion. Several variants of chymotrypsin can be produced, depending on the conditions. The first product of activation (by trypsin) is π-chymotrypsin, in which the peptide bond between residues 15 and 16 is cleaved. The further cleavage of the bond between residues 13 and 14 leads to the formation of δ-chymotrypsin, with loss of a dipeptide, and the excision of a further dipeptide (147–148) produces α-chymotrypsin (the most usual accessible form); by changing the conditions this can be converted reversibly into a further form, γ-chymotrypsin. In addition to the fission of peptide bonds, the chymotrypsinogen–chymotrypsin conversion is accompanied by certain physical changes, which have exercised many protein chemists in recent years.

Some direct observations of the differences between the different chrymotrypsins and their parent zymogen now come from the crystallographic studies of Kraut *et al.* (*Proc. US Nat. Acad. Sci.*, **58**, 304; 1967). Although the resolution at this stage is only 5 Å, which means that the course of the polypeptide chain cannot be followed with certainty, it is still possible to draw several interesting, if tentative, conclusions, especially if reference is made to the recent 2 Å X-ray structure of α-chymotrypsin of Matthews *et al.* The results demonstrate how X-ray studies can give relevant information to the protein chemist, without necessarily producing the complete structure of the molecule.

The clearest conclusion to emerge is the extensive similarity between chymotrypsinogen and the chymotrypsins. Thus activation does not involve any major rearrangement of conformation. A comparison between the zymogen and a δ-chymotrypsin derivative reveals