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**NEWS & VIEWS**  
**POST GRADUATE MEDICAL SCHOOL**  
**UNIVERSITY OF CAMBRIDGE**

The Department of Dermatology of the United Cambridge Hospitals will offer from September 1966 a full programme of post-graduate instruction in dermatology, including relevant laboratory sciences. The number of post-graduates will be strictly limited. Applications and enquiries may be addressed to Dr. A. J. Rook or to the Secretary of the Medical School.

## RESEARCH ON DRUG ACTION

As the total knowledge derived from research the world over has increased, ever greater exactness has been applied in the testing of medicines. This too, is an essential by-product of the medical revolution; the systematic evaluation of each new medicine before introduction is only a generation old; and the double blind trial, considered so indispensable today, is even more recent.

With techniques for gauging the action and reaction of chemicals in the body becoming more and more accurate, the pharmacologist today points his quest towards more precise—and therefore safer—drug effects. With a fund of newly acquired knowledge at his disposal, he is now in a position to ask, in chemical terms, why and how drugs achieve their effects.

The interaction between body—especially the diseased body—and drug is enormously difficult to plot, with progress controlled by the limits of our knowledge and the precision of the tools at our disposal. However, we continue to probe deeper and understand more and more. Cancer, for example, still remains a mystery, but all the time, from all directions, progress is being made towards the heart of that mystery—and so it is for bio-chemical exploration generally. It is the scientist's task to track the progress of a drug within the body, so that he can say exactly what happens when the drug is administered. Here is how the process runs; give a drug to an animal, observe the effects and trace the distribution of the drug in the body. The first two stages have long been part of the drug testing procedure. But now a further step has been added by studying the effect of the body upon the drug—i. e. the drug metabolism. The body may change a drug through enzyme action. How will this affect its distribution, or that of its metabolites in the organism?

Present day techniques help scientists to find the answers to such questions, so that drugs may be used with greater confidence. Modern bio-chemistry also enables them to know more precisely how a drug acts on cellular metabolism knowledge of the action of a drug upon cellular metabolite pathways may also lead the investigation to long term side effects of an undesirable nature.

A new drug research unit was opened on May 12, 1965, at CIBA Laboratories Limited, Horsham, the British affiliate of the wellknown CIBA chemical group. Scientific investigations in the new unit will be directed chiefly towards long term studies of drug action with a view to learning more about how chemical substances interact with the human organism. One subject of investigation is the phenomenon of inflammation associated with many diseases. It is thought that one of the polypeptides—the links in the chain of protein molecules in the body—may be involved in producing some of the signs of inflammation. Studies are also being made on derangements of fatty acid metabolism occurring in some cases of Vitamin B<sub>12</sub> deficiency. This may have an important bearing on demyelinating diseases.