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A YEAR IN INDUSTRY

A comprehensive training in clinical pharmacology would cover a very wide field. The trainee should become familiar with such things as drug assay techniques, pharmacokinetics, isolated tissue work and animal studies. In addition he or she should be able to give advice on the management of self-poisoning, drug interactions and prescribing in renal failure. To acquire expertise in any one of these fields it may be advisable to go to a particular laboratory, university department or clinical unit. A clinical pharmacologist must also understand how drugs are produced, how clinical trials are organized, what legal requirements are involved and should also have some insight into drug promotion. To acquire this sort of knowledge he must go to the pharmaceutical industry rather than an academic department. With this in mind I arranged to have a nine-month sabbatical working in the medical department of Ciba-Geigy U.K. as part of an MRC training fellowship in clinical pharmacology.

During this period I spent time working in research laboratories at Horsham and visited the large research unit in Basle, both being valuable and enjoyable experiences. However, most of the time was spent working as a medical adviser helping to steer one drug during its course from phase III (the clinical trials phase leading up to obtaining a product licence) to phase IV (when the drug is on the market). This involved working with many different groups within the industry including those concerned with registration, information, publicity and marketing. In addition, it provided an opportunity to see the medical profession from the other side of the fence and even to go as 'a drug rep' to the out-patients' in Halifax and to a general practitioner's surgery in Bromsgrove and face the doctor across the desk.

In nine months one does not become an expert on clinical trial methodology. It is, however, a valuable experience to have to design the forms, to think about the way the trial supplies will be provided and to worry about the legal and ethical problems instead of leaving 'the details' to the man from the drug company. In the same way it takes years to learn how to put together a good submission for a product licence but being involved in a particular case makes one aware of the time, effort and frustration involved. Since many clinical pharmacologists may some day find themselves assessing submissions and other data and documents from the industry, it is an advantage to have seen the problems involved in preparing them.

To some extent each company has something different to offer which is of educational value to the clinical pharmacologist. It would be wrong to use this opportunity to single out for praise particular features of Ciba-Geigy but three things, which I know I might have found in other companies, come to mind as characteristics of the industry not sufficiently appreciated by the rest of the medical profession. Firstly, there is the enormous wealth of skill and knowledge which is required to produce new drugs. There is still a great tendency to consider that the drug industry is an organization dedicated to persuading overworked doctors to prescribe expensive, relatively ineffective and potentially dangerous medication to make a profit rather than to help the patients. Even sophisticated members of the profession, though aware of the academic and technical excellence of some of the research departments rarely make use of them as training grounds for people wanting to acquire technical skills, or as sources of lecturers and teachers. For example, when a product is unsuitable for oral administration, research has to be carried out to see whether it can be made suitable. In the course of this research data is collected about normal and abnormal gastrointestinal physiology. The data is frequently never published and the researchers remain 'unrecognized experts'.

Secondly, we all pay lip-service to the need for statistical help at an early stage in any piece of research. Whilst in industry advice on data collection, computerization of results and statistical analysis was a welcome practical reality throughout the planning and performance of all studies. What head of department given the opportunity to appoint five new members of staff would appoint four research workers and a person with skills in mathematical analysis?

Thirdly, there is the information service. This provides up-to-date information on recent advances tailored to suit the needs of the individual, often in the form of relevant photocopies, but this is a small part of the information service. Each company obviously has great files of information on its products and the rival products and about certain groups of disorders and their management. Clinical pharmacologists would be well advised to avail themselves more often of the information about drugs and disease which the industry can relatively easily provide.

Those are just facets of life in industry which I was able to share whilst working in industry and which I have been able to make use of since

returning to academic clinical pharmacology. For another person the time in industry could have been spent learning something quite different such as the techniques of inducing hypertension in animals or of measuring drug levels using high pressure liquid chromatography.

The drug industry exists to produce drugs and the clinical pharmacologist to give guidance on their use. In a very real sense clinical pharmacologists should act as a link between the drug industry and the medical profession. It must be a discerning link, sometimes encouraging drug use and forming a bridge, sometimes discouraging drug use and forming a barrier. In either case it is an advantage to know something about the problems of the producer as well as of the prescriber. It would therefore seem reasonable to encourage people training in clinical pharmacology to consider a sabbatical year working in the drug industry. The time spent is likely to be both instructive and enjoyable, and contacts made will form a sound basis for future co-operation and it is even possible that the attitudes and skills of the academic may be helpful to the industry.

I am very grateful both to the MRC Training Committee for their help and encouragement which made my visit possible and to Ciba-Geigy U.K. who gave me a very profitable and enjoyable nine months.

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