Editors' foreword

This is the sixth symposium in the series 'Chemical pathology in relation to clinical medicine' organized by the Committee on Chemical Pathology of the Association of Clinical Pathologists. Like its predecessors, it includes both laboratory and clinical aspects of the subjects discussed. Some selection was necessary, and in view of the growing importance of studies on biopsy material and their contribution to our understanding of congenital enzyme deficiencies, it may at first seem surprising that some congenital disorders such as glycogen storage disease were omitted. Some of these, however, were included in the previous symposium on 'Disorders of carbohydrate metabolism'.

Many enzyme changes occur in disease, and the value of assays is clear in some conditions. In others, such as abnormal pregnancy and cancer, they have limitations which have been well brought out. The excellent review of enzyme changes in liver disease emphasizes that different enzymes show maximal changes in different conditions, so that there is no single enzyme assay which is ideal for general routine use; moreover, even multiple enzyme assays will not necessarily resolve the differential diagnosis.

It is essential that those who estimate enzyme activity should have a basic understanding of enzyme kinetics and inhibitor action and of optimal assay conditions. We have therefore set out in Appendix A a fairly detailed account of these subjects for those who may wish to refresh their knowledge of them.

There was general agreement that kinetic measurements are better than single-point techniques, but the latter are more suitable for large batch analysis; more information is needed on the frequency and degree of error incurred as a result of using the latter procedure.

It is now becoming common for laboratories to express enzyme activity in the recommended International Units. It must, however, be emphasized that this will not necessarily result in a single sample giving the same numerical value in two different laboratories unless the techniques used are identical.

We have used throughout the trivial names recommended by the Commission on Enzymes of the International Union of Biochemistry (1965), and these are listed in Appendix B with their IUB code numbers. We have avoided the use of abbreviations except when an enzyme is referred to frequently; in such cases, as the IUB Commission does not recommend abbreviations, we have used those suggested by Baron, Moss, Walker, and Wilkinson (1971), except that we have used AsAT and AlAT for the aminotransferases whereas the authors still refer to them as transaminases and recommend AST and ALT respectively.

We are indebted to Professor D. N. Baron, not only for taking the chair at the symposium, but also for his advice on the selection of speakers.

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Reference

Baron, D. N., Moss, D. W., Walker, P. G., and Wilkinson, J. H. (1971). Abbreviations for names of enzymes of diagnostic importance. *J. clin. Path.*, 24, 656-657.