Book reviews

Journal of Medical Genetics 1989, **26**, 143

Elements of Medical Genetics

7th edition. By Alan E H Emery and Robert F Mueller. (Pp 404; £9.95.) Edinburgh: Churchill Livingstone. 1988.

This book has for many years now been the standard introduction to the subject for medical students and many others, though recently it has encountered increasing competition from other books of similar type. For this 7th edition, Professor Emery has co-opted Dr Robert Mueller and together they have produced an informative and attractive book.

The main change from previous editions is, as expected, the development of the sections on applications of molecular genetics, but cytogenetics, developmental genetics, and clinical aspects have all been modified considerably. There is a close integration of clinical and basic material.

The book is clear to read and contains considerably more information than some other introductory books. Illustrations are good and relevant, and the appearance and typeface are attractive. The only cavil I have is with the publishers, who have labelled it conspicuously as 'Student Notes'. Student notes it definitely is not; it is a well written and authoritative introduction to medical genetics that medical and other students will enjoy, as will clinicians wishing to learn more about the subject than they were able to in their own undergraduate days.

PETER S HARPER

Genetic and Perinatal Effects of Abused Substances

Edited by N C Braude and A M Zimmerman. (Pp 211) Orlando, Florida: Academic Press. 1987.

This book is a timely monograph on some of the toxicological effects of abused substances with concentration upon opiates, cannabinoids, alcohol, nicotine, and cocaine. It divides into two basic areas, namely the genetic and the developmental effects of the agents, which are discussed in six and three chapters respectively.

My major conclusion on reading the book was the limitations in our understanding of the toxicology of drugs to which there is such a high potential population exposure. In complementary chapters on 'The genetic effects of drugs of abuse' by Legator and Au, and 'Cytogenetic studies of cannabinoid

effects' by Zimmerman and Zimmerman, there are demonstrations of the problems inherent in human studies using illegal drugs, which highlight the need for well designed animal studies. Legator and Au make use of their chapter to outline their 'combined testing protocol' using a rodent, which combines genetic, metabolic, and pathological studies into a single comprehensive analysis of the consequences of drug exposure. Such a protocol has considerable theoretical and practical attractions for toxicological studies.

The variabilities of individual responses of both human and animals to a number of drugs are illustrated in chapters on 'Pharmacogenetics of drugs of abuse' by Shuster and 'Biochemical genetics of nicotine' by Collins *et al.* Such variabilities introduce considerable complexities into the design of toxicological studies and the selection of appropriate animal models. Problems of interpretation of such studies must arise unless such variability is considered in toxicological evaluation.

Indications for directions for future work at the molecular level are provided by reviews of some of the studies on opiate binding sites in 'Genetic and immunological consequences of opiate actions on lymphocytes' by Falek *et al* and on cannabinoid induced changes in gene expression in 'Applications of molecular genetics to cannabinoid research' by Stein *et al.*

The second section of the book reviews perinatal effects of drugs of abuse and includes a general review of 'Drugs of abuse during pregnancy' by Hutchings, and more specific information on the effects of marihuana in 'Biochemical aspects of marihuana on male reproduction' by Smith and Holmes and the effects of ethanol in 'Long-term behavioural and neuroendocrine effects of prenatal ethanol exposure' by Nelson and Taylor.

Overall, this book provides a valuable introduction to both clinicians and researchers with interests in the study of drugs of abuse and the potential clinical problems of their usage. Perhaps more importantly, it might serve as an indicator to financial administrators of those areas which require further support. My only reservation about the book is that the chapters do appear to have been written in isolation and some chapters could well have been combined to provide a rather more coherent theme throughout.

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