REVIEWS

GENETIC CONCEPTS AND NEOPLASIA. A collection of papers presented at the 23rd annual symposium on fundamental cancer research at the University of Texas M. D. Anderson Hospital and Tumor Institute at Houston. Williams & Wilkins Co., Baltimore.

This volume reached me at the beginning of October 1970; it contains the proceedings of a symposium held at the beginning of March 1969; it costs U.S. \$17 (United Kingdom price is not given). The book is thus one of those *ad hoc* compilations which, with few exceptions, serve little purpose other than the financial gain of the publisher. This is not to say that there is nothing useful in it. Some of the short review articles are quite good, although in almost every case I can think of a better and more detailed review of the same material, sometimes by the same author. Some of the contributions describe original experiments; but they have almost all been published elsewhere, in some instances more than once. And in those areas with which I am most familiar, the experimental contributions are now old hat. Why do scientists agree to participate in symposia of this sort, where the presentation of a manuscript is required? Is Houston, Texas, so attractive a resort? I can think of situations where the rapid publication (say, within two months) of the proceedings of a meeting on a specific subject might serve a useful, if ephemeral, function; but where the subject matter is highly heterogeneous, and the publication time is eighteen months or more, the articles must be of an extremely high standard to justify the purchase of the book. With few exceptions, the articles in this book are pot-boilers produced for the occasion.

For those who are interested, the range of material covered includes: chromosomal abnormalities in tumours; the relationship between ionising radiation and tumour production; congenital malformations and cancer; the clonal origin of certain tumours; the effects of oncogenic viruses on cells; the effects of carcinogens on cells and nucleic acids; some ultra-structural studies; and three papers on somatic cell hybridisation, all containing material very largely published elsewhere. There is, however, a very interesting article by Beatrice Mintz on Neoplasia and Gene Activity in Allophenic Mice, which contains material I have not seen before.

I suggest that readers boycott this type of book, in the hope (perhaps forlorn) that publishers will eventually refrain from producing out-of-date symposia, and that the organisers of symposia will eventually stop asking participants for manuscripts.

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HUMAN POPULATION CYTOGENETICS. Edited by Patricia A. Jacobs, W. H. Price and Pamela Law. Edinburgh University Press, Edinburgh, 1970.

This book contains the papers read at the fifth Symposium of the Pfizer Foundation, held in Edinburgh in 1969. In addition to the contents of an opening address by the Secretary of the Medical Research Council there are seventeen papers on such topics as karyotype descriptions in man, meiosis in females with normal and males with normal and abnormal karyotypes, population surveys and the automation of cytological analysis.

In the context of this book, human cytogenetics provides information about man that is of great significance but the provision of information that is new to cytogenetics is slight. In the larger field of human cytogenetics, however, the situation is changing and results of wide interest are emerging. This is because work is no longer restricted to the description of the contracted chromosomes of spindle-inhibited metaphases of mitosis. Techniques are now available for the detailed study of meiosis and for the examination of replication patterns. Mouse-man chromosome addition lines are being used for the association of genetic activities with particular chromosomes, applying principles first used in plant cytogenetics 30 years ago, and the occurrence of greatly increased frequencies of mitotic chiasmata in association with Bloom's syndrome (K. Patau and E. Therman, 3rd Oxford Chromosome Conference) is of great interest and potential significance.

But *Human Population Cytogenetics* does not deal with these aspects of the subject, consequently, although the papers will no doubt be of considerable value to those working with mammalian chromosomes, other cytogeneticists will find much less of interest. Nevertheless anyone wishing to appreciate the genetic structure of the population of which he is a member should look at the papers of Jacobs, Carr, Lubs and Ruddle, Gerald and Walzer, Turner and Wald and Smith and Jacobs, on the distribution of alternative variants of the human karyotype in the population at large. There is also a nice contribution by J. H. Edwards on the related topic of the effects of selection on the chromosomally abnormal components of the population.

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HUMAN GENETICS AND MEDICINE. Studies in Biology No. 20. Cyril A. Clarke. Edward Arnold, 1970. Pp. 74. 75p.

The introduction tells us this book was sponsored by the Biological Education Committee, set up jointly by the Royal Society and the Institute of Biology for "the production of a series of booklets dealing with limited biological topics in which recent progress has been most rapid and important".

Human Genetics and Medicine, or rather, as it should be called, "Human Genetics in Medicine" hardly conforms to any limits suited to a booklet. A survey on rhesus disease, on transplantation, on chromosome mapping, or on any of the many facets surveyed by this title could fill a booklet; to attempt all is an unreasonable request. None of the other 33 titles in the series is quite as ambitious.

Professor Clarke, the Professor of Medicine at Liverpool, has accepted the challenge, and leads the reader on a high-speed tour, following a somewhat original route, with unexpected sudden and stimulating detours from the beaten track implied by the chapter headings.

The first page is on dominant inheritance, the second on the problem of controls in assessing a mutation rate. And so we continue, through various deep, and sometimes bottomless, waters, including suppressors, multi-local cistrons, statistical tests for subtle forms of disturbed segregation, and the rhesus locus as a super-gene, until we reach firm ground with such demonstrable elements as the chromosomes, and home ground with excellent chapters and the latest news on drug sensitivity and on rhesus disease, whose