Book Reviews

Journal of Medical Genetics (1973). 10, 400-404.

Oogenesis. Edited by John D. Biggers and Allen W. Schuetz. (Pp. 543; figures+tables. £8.00.) London: Butterworth; Baltimore: University Park Press. 1972.

This volume is the published account of a Symposium organized by Drs Biggers and Schuetz in 1970 at Johns Hopkins University. The avowed purpose of the meeting was to bring together experts working in the three prime areas of the study of oogenesis (meiosis, developmental aspects of information storage, and endocrine control of oocyte maturation and release) for the purpose of exchanging information and concepts. The book stands as a remarkable testimonial to the success of the endeavour.

Twenty-six presentations including such subjects as ultrastructural aspects, nucleic acid and protein metabolism, studies *in vitro* and *in vivo* of oocyte maturation, chemical and hormonal mediation of meiosis, and effects of follicular cells on oocytes are all detailed. Significant features of each of these as they are represented in many species of the animal kingdom are well described and each presentation is followed in the printed text by a very useful and comprehensive list of references.

Characteristic of the quality of this volume are the reports by Zamboni on the 'Comparative studies on the ultrastructure of mammalian oocytes', Davidson and Hough on 'Utilization of genetic information during oogenesis', Pedersen on 'Follicle growth in the mouse ovary', and Donahue on 'The relation of oocyte maturation to ovulation in mammals'. Zamboni organized a well-illustrated discussion of the transmission electron microscopy of mammalian oocytes during the embryonic and post-embryonic phases. The quality of photomicrographs was high and is well reproduced in this volume. Salient features peculiar to various species are emphasized and considerable perspective on the value of studying oocyte ultrastructure is achieved. The outstanding work of Davidson and his colleagues on lower form oocyte RNA succinctly highlights the need for similar investigations on developmental information in mammalian eggs. The quantitative study of follicular growth is presented in a very careful study by Pedersen which turns one's attention to the long-standing questions of atresia and the control of ovarian follicular development as a mathematical concept. Donahue provides a very tightly organized survey of the state of the art of *in-vitro* maturation of mammalian oocytes, and the effects of exogenously induced maturation. Valuable reference tables are included in this article which collate observations on *in-vivo* and *in-vitro* timing of maturation for various species including human.

For anyone interested in female reproductive endocrinology and more particularly those working in the investigative areas of oogenesis, this volume is invaluable and well worth the modest cost.

GEORGIANA JAGIELLO

Genetic Factors in 'Schizophrenia'. By Arnold R. Kaplan. (Pp. xxvi+698; figures+tables. US \$43.00.) Springfield, Illinois: Charles C. Thomas. 1972.

The nature of the genetic factors in schizophrenia remains obscure, and the traditional type of family and twin study may have reached the limit of usefulness. This book is a kind of stocktaking of the capital of ideas and observations accumulated after 50 years' research, with one eye on future investment. After a short introduction, there is a section on the concept of schizophrenia, and this is followed by the main part of the book dealing with the monogenic and multiple factor possibilities that can currently be considered in a genetical analysis. This section also contains a thoughtful discussion by Planansky on phenotypic boundaries and genetic specificity; an exposition by Mitsuda of his views on heterogeneity; and an illuminating analysis of the effects of mutation, heterozygote advantage, maternal age, and social class on the schizophrenic polymorphism by Moran. A chapter on genetic counselling is contributed by Reed. The following section is mainly concerned with biological, biochemical, and cytogenetic studies but social, cultural, and interpersonal aspects also receive attention, and there is an interesting account by Anthony of his studies of children of schizophrenic parents. In the final chapters the issues raised are critically discussed. The 34 contributors make up a formidable international team, and though much of the ground is well trodden, it is invaluable to have the evidence for the main hypotheses so skilfully presented, and defended, by experts who have committed themselves to certain views.

The reader may form his own opinion from the wealth of information and argument provided, and select areas likely to be productive in the future. In genetic research, psychiatric parameters need to be supplemented by studies of (reported) biological correlates of schizophrenia, such as arousal states, capillary patterns, leucocyte abnormalities, and autoimmune responses. It will, however, remain very important to give adequate psychiatric information, and to describe the method of selection of cases with care. Among cytogenetic studies, the reports of X-chromosome aneuploidy mosaicisms and of acentric chromosomal fragments in female schizo-