Book reviews


This book is a more or less verbatim account of the transactions of a conference organized in 1972 by the Macy Foundation jointly with the 'centre international de l'enfance', in honour of Professor Robert Debre, who himself suggested the theme of 'pre- and postnatal development of the human brain.' The Foundation brought together a most distinguished group of workers in fields extending from biochemistry, through morphology, to clinical medicine and psychology, and was noteworthy for the presence of the late Herbert Birch and the late Bacon Chow (and for the absence of Dr. John Dobbing).

One must congratulate the editors for their services as midwives in introducing the material presented at the conference to the world at large, though a third stage of 2 years is rather long for a book of this kind whose major usefulness is in bringing the reader up-to-date with the state of a given field of inquiry. In 399 pages of clear though small print, the volume finds room for 28 papers divided into 6 sections entitled cell biology and morphology, biochemistry, stimulation, nutrition, electrophysiology, and behavioural components of neurological development. These, with summaries of the discussions that concluded each session, a table of contents, a preface entitled 'homage to Professor Robert Debre' by the president of the Foundation, and a useful list of abbreviations, but no index, comprises the contents. The papers are printed as given in English and French, respectively.

With such a large number of contributions covering so wide a field, the reviewer can only comment on the value of the book as a whole for the general medical reader and on those aspects of particular interest to himself. In what might be called the preclinical sections, one is particularly impressed by the amount and manifest quality of the work being done on the development of the brain relating chemical constitution to age and functional maturation. Equally fascinating is the description by Rakic and Sidman of the mechanisms of cell migration during development and of the possible role of glial cell processes in providing guide lines for neurones as they leapfrog peripherally to take up their final stations.

The clinical and behavioural sections are of equal quality with particularly interesting accounts by Blake and Birch on how to look at the structural and functional implications of psychological data about learning at various ages, and by Parmelee on the ontogeny of sleep patterns.

At first glance this might be thought to be a book for specialists in the various fields represented, but it will in fact probably be of most value to the generalist seeking to know what directions research has taken in the investigation of the physical substrates of behaviour and how this new knowledge interacts with clinical and psychological observations during human growth and development. It is particularly recommended to paediatricians and to psychologists working with children.

We are all indebted to the Macy Foundation, the editors, and to Karger for its production; but would it perhaps have been cheaper, more-up-to-date, and less cluttered if it had not been the edited record of a conference but a book in its own right. Did the conference really help the two sets of contributors to find common ground? As Herbert Birch said in introducing his contributions, we might perhaps make better progress in this difficult field were chemists and morphologists to be asked by physicians, psychiatrists, and psychologists, who work with whole children, to look for the structures and systems underlying behaviour rather than for each discipline to pursue parallel studies linked only by the diagonal of occasional multidisciplinary conferences.


Research on the pharmacology of the fetus and newborn has seemed to lag behind that on other aspects of perinatal medicine. Technical and ethical considerations are in part responsible, yet it is a vitally important field, and a consideration of the problems and priorities involved is to be welcomed. This volume is the result of a meeting organized by the Perinatal Biology and Infant Mortality Branch of the National Institute of Child Health and Human Development held in Bethesda, Maryland, in April, 1973. There were biochemists, paediatricians, pharmacologists, and physiologists among the 22 North American participants, and their papers and discussions that followed are grouped in 5 sections. The first deals with drug effects on tissue differentiation at various stages of development, the second with drug effects in tissue and organ culture, and the third with the placenta and its role in drug metabolism. The fourth section considers nutritive factors, covering such diverse topics as the relevance of the vitamin responsive inborn