

# BOOK REVIEWS

## Scientific Medicine

*The Emergence of Scientific Medicine.* By W. P. D. Wightman. (Contemporary Science Paperbacks No. 44.) Pp. 109. (Oliver and Boyd: Edinburgh, 1971.) 37½p.

ANYONE who has studied the reference literature of medical history will know how few books there are that really compel the reader to think beyond the commonplace. Dr Wightman's book belongs to this small group. Its text, based on lectures given over many years to medical undergraduates at Aberdeen, is dense and compressed with not a wasted word. In these days of verbosity it is to be welcomed for that reason alone.

More than anything, Dr Wightman dislikes the kind of prejudices that spring from perverted logic or ignorance of history. One of his particular hates is the fallacy that the Church impeded the progress of science and medicine in the Middle Ages and he quite obviously takes the greatest pleasure in setting the record straight, following the lead set by Dr Talbot in his *Medicine in Mediaeval England* (1967). He also delights in shaking us out of our arrogance, as for instance when he claims that a belief in the procedures of temple incubation is not *ipso facto* irrational "provided that . . . the opinion . . . as to right action . . . is based on a conscious relation of ideas".

His chief concern is with plotting the course of non-magical attitudes to the body, from Greek times to the seventeenth century. This he does by interposing his own comments between cleverly chosen extracts from the works of a dozen or so seminal writers. Here he explains their apparent contradictions; there he marks out the line that divides true originality from high competence. No hero worshipper, he gives credit to Aristotle for "imposing system upon the flux of experience" and yet recognizes, in respect of logic, the philosopher's debt to his teachers and predecessors; while Galen is praised not only for his experimental genius but in addition for the persuasive consistency of his humoral theory. In a sense, as Wightman points out, the latter can be said to prefigure the modern theory of endocrine balance.

As for Harvey, even he, in his Aristo-

telean view of the blood, is shown to be a product and disciple of tradition; whereas that sworn enemy of the orthodox, the "God-intoxicated ranter" Paracelsus, emerges almost as a blood brother of Francis Bacon, at least insofar as both men followed similar methodical lines of thought. Again, Fracastoro was a scientist in the modern mould, not so much because he formulated a contagion theory as because of the "critical manner in which he confronted theory with facts".

This short book should be read twice over, and not only by newcomers to the subject. It helps us to glimpse some of the conceptual difficulties that faced our forebears and it arouses admiration for the experimental methods evolved by men such as Richard Lower.

E. GASKELL

## On Being Neurochemical

*Methods in Neurochemistry.* Edited by Rainer Fried. Pp. xi+374. (Marcel Dekker: New York, 1971.) n.p.

THIS book's preface claims neurochemistry as one of the fastest growing of the life sciences, and this is probably true: the *Journal of Neurochemistry* is now as large as was the *Biochemical Journal* of a previous generation. The contents of *Methods of Neurochemistry* suggest that one of the methods of growth of the subject is by capture. It is to cover "all important areas of the neurosciences, mainly in the fields of biochemistry and pharmacology". Of the book's six chapters, that by Donough O'Brien on biochemical screening in mental retardation could equally count as clinical biochemistry; while that of Krnjević on microiontophoresis embraces much physics and pharmacology. The neurochemical aspect of each contribution is nevertheless undoubted; the neurosciences by their nature encourage interdisciplinary work and thinking. Thus O'Brien's account, which is the largest in the book, gives both clinical and technical commentaries on some twenty metabolic abnormalities in man which are related to mental dysfunction. It lists briefly seventy to eighty such conditions and avoids discussion of those which are adequately recounted in books of reference; it also demonstrates well the need for expanded laboratory facilities in this field.

The stated editorial intentions regarding *Methods in Neurochemistry* are to present several distinct areas of research, rather than obey a unifying concept, and the book begins with accounts of the purification and properties of myelin isolated from neural systems (L. C. Mokrasch), and of the purification and properties of phospholipids (G. B. Ansell and S. Spanner). Methods of determining catecholamines and their metabolites are also described (D. F. Sharman); the three contributions include excellent experimental details.

Of very different character is the final and second largest contribution, which is by the editor and a co-worker and is a tabulation of "compounds of importance to neurochemistry". Errors in this section include the relatively harmless mis-spelling of names of substances, but also mistakes among less well known compounds. Saccharopine, an amino-acid derivative found as a urinary constituent in a form of mental disorder, is given the structural formula of a C<sub>10</sub> compound and the molecular formula of a C<sub>11</sub> compound. Three successive entries are: chlorpromazine, depicted with triply-bonded chlorine in a 6-membered ring; cholesterol with structure lacking angular-bonded methyl groups; and cocaine, with the molecular formula of a C<sub>17</sub> compound and the structural formula of a C<sub>18</sub> compound. *Neurochemistry: important, expanding, should be able to command better service.*

H. McILWAIN

## Blastocyst Biology

*The Biology of the Blastocyst.* Edited by R. J. Blandau. Pp. xi+560. (University of Chicago: Chicago and London, March 1971.) £12.40.

THE current publication explosion has produced torrents of books on almost every conceivable aspect of reproduction. Prospective readers are thus likely to scan new books very carefully for quality, price and comprehension before being tempted to invest their money. *The Biology of the Blastocyst* sets a high scientific standard, covers a comprehensive set of topics (perhaps too wide) and has a price that even by current standards is not cheap. It is obvious that this book will prove of considerable value to the rapidly in-