the cortex, and to a dementia score. The importance of vascular disease to the general causation of dementia rests somewhat precariously; Tomlinson's group found evidence of an ischaemic basis in 16% of their demented, contrasting with a much larger incidence obtained by other methods. O'Brien highlights the dilemma: does vascular disease produce dementia by the production of multiple infarcts (recognisable in life as strokes), or can chronic anoxic cells remain viable for long periods during which they contribute to the dementia and ultimately cause atrophy? O'Brien favours the latter explanation on the basis of his cerebral blood flow studies, though many will remain sceptical of the conclusions reached by means of a single method which to date has yielded no therapeutic dividend.

These topics hint of the stimulating and controversial value of this book. In a complex field no clear message stands out, unless it is the self-evident need for further work of the calibre of the Newcastle and NIH schools. It is perhaps a pity that there is no serious account of the clinical approach to the assessment and investigation of the demented, but this is a book better suited to the established expert than to the embryo neurologist, or dare one say psychogeriatrician. It is well produced with clear tables, and should command a wide readership.

J. M. S. PEARCE

Biochemical Correlates of Brain Structure and Function Edited by A. N. Davison. (Pp. 345; illustrated; £14.00.) Academic Press: London. 1977.

This book represents a collection of review articles on selected topics of the biochemistry of the nervous system, the aim of which is to attempt some correlation between structure and function. The individual authors are all acknowledged experts in their field, and the accounts are generally clearly written and well illustrated. The first three chapters provide the clearest basis for correlating structure and function—that is, on the morphological and biochemical changes which occur during brain development. The first chapter is a concise statement and summary of general aspects of development, and it is followed by a valuable description of the rapidly expanding and related field of

nucleic acid metabolism. I would have liked to have seen included here some assessment of current views on the effects of nutritional deficiency. Chapter 3 deals well with the effects of drugs and hormones on the developing brain.

The central section consists of chapters on cyclic nucleotides and retinal disorders, the functions of monoamine neurones and on energy metabolism. All are excellent reviews but do not seem to fit any particular overall theme, and the relevance of this section to the stated objectives of the book is not clear. The final three chapters on behaviour learning, memory, and sleep, provided the most interesting reading for this reviewer, and the book is, therefore, recommended particularly for this section which gives a nicely balanced perspective of value to all neurobiologists.

H. S. BACHELARD

Clinics in Endocrinology and Metabolism Volume 6 No. 3 Catecholamines Edited by Lewis Landsberg. (Pp. 279; illustrated; £7.50.) W. B. Saunders: London. 1977.

This is a useful and stimulating book, about the adrenergic nervous system rather than about catecholamines. It is not a textbook of catecholamine chemistry or pharmacology and is not concerned with schizophrenia or Parkinsonism. The subject is the peripheral rather than central, hormonal rather than neurotransmitter, actions of catecholamines. There are 10 chapters by 11 North American authors which give a selective review of the behavioural responses to adrenaline and noradrenaline. One wants to read most of them. The sections on adrenergic receptors (Steer), neuroendocrine tumours (Metz and Levine), and the brief discussion of diseases of the autonomic nervous system (Moskowitz) are particularly good. The initial chapters describe current knowledge of catecholamine metabolism and release from the adrenal medulla, and other subjects discussed include the sympathetic system in hypertension and hyperthyroidism.

On the practical side, catecholamines play a role in the pathogenesis of many diseases, and the management of pheochromocytoma and the diagnosis of autonomic malfunction are reviewed succinctly. The book is well written,

produced, and illustrated with a lot of references and is reasonably priced. Without question it will repeat the success of earlier volumes in the Clinics series.

DAVID PARKES

Basic Human Neuroanatomy—An Introductory Atlas Second edition By Craig Watson. (Pp. 141; illustrated; \$8.95.) Little, Brown, and Company: Boston. 1977.

The purpose of this short book, as stated in the foreword, is to separate the core from the minutiae of neuroanatomy and thus confer a sense of proportion upon the student. The text is divided into three main sections—a review of the organisation of the nervous system with special emphasis on the cranial nerves, a brief summary of the functional neuroanatomy of the major motor and sensory pathways, and an atlas of the brain and cord. Two useful features of the third section are the use on freshly cut brain sections of a staining technique which leaves white matter unstained while colouring grey matter blue, and the presence adjacent to each horizontal brain section of corresponding scans obtained by computerised axial tomography.

The atlas of the brain and cord is a strong feature of this book. The photographs are so labelled as to encourage self-testing, and there is ample space on each page to add personal notes if desired. The index is excellent and there is an adequate list of references for further reading, but this is confined to North American works and omits to mention, for example, *Neurological Anatomy* by Brodal.

This book is worth having at the modest price, by today's standards, of \$8.95.

W. F. DURWARD

Neuro-regulators and Psychiatric Disorders Edited by E. Usdin, D. A. Hamburg, and J. D. Barchas. (Pp. 627; illustrated; £25.50.) Oxford University Press: New York. 1977.

This volume contains the proceedings of a conference on "Neuro-regulators and hypotheses of psychiatric disorders" held in 1976. The conferees include many of the leading figures in the field of psychopharmacology. The book is