

tunities to improve while research on better techniques continues. His argument sounds reasonable and not over-reactive.

The following abstracts seemed to me to be worthy of special mention—the prognosis of hyperactivity in children and the prognosis of childhood seizures, the improvement brought about by chronic cerebellar stimulation in epilepsy but the doubts cast on the treatment on humanitarian grounds, the sensory symptoms in Parkinson's disease, the treatment of the tardive dyskinesias, an interesting review on excessive daytime sleepiness, neuro-psychological manifestations in divers, the myelopathy of Eales disease, a study of lesional topography in medullary infarction, the microsurgical treatment of hemifacial spasm, and a controversial and stimulating neuro-surgical look at various spinal conditions.

Not unexpectedly the neurosurgical section has many abstracts concerning the use of CAT scanning. There is the usual call for an "aggressive" diagnostic approach when the neurological status in stroke is rapidly changing. There is, however, consensus that angiography and carotid surgery should be avoided in acute severe stroke, in those with fixed neurological deficits, and in total carotid occlusion. Thus surgical enthusiasm in occlusive arterial disease remains; the assessment of the surgical results remains as difficult as ever.

IAN D. MELVILLE

**Modern Pharmacology Toxicology Series Volume 11 Receptors in Pharmacology** Edited by John R. Smythies and Ronald J. Bradley, Jr. (Pp. 516; illustrated; Sw fr 128.00.) Marcel Dekker: New York and Basel. 1978.

Drug receptors, once the sole province almost of the pharmacologist, were until recently known only indirectly through the nature of the drugs which interacted with them and the effect this had on the activity of the tissue. In recent years new and powerful biochemical and biophysical tools have provided a wealth of new information at the cellular and even molecular level. Some receptors, like enzymes, have been isolated and their molecular structure identified. Many of these drug receptors are the natural target for hormones and neurotransmitters, and their study has on occasions led to the

discovery of a whole new class of naturally occurring compounds as with the opiate receptor and the endorphins.

In such a rapidly developing field there is value in a book which provides a collection of reviews on receptors in which progress has been particularly rapid. Ideally such reviews should avoid concentration on any particular line of research (particularly the author's own) in favour of a broad definition of our present knowledge and an indication of the most important remaining problems. The chapters in this book, if unevenly, do serve this purpose. The authorship is mainly American but the coverage both in the opening chapter on general drug-receptor interaction and in subsequent chapters on the steroid, insulin, acetylcholine,  $\beta$ -adrenoceptors, opiate and brain amino-acid receptors, is international. Important remaining problems, such as the influence of the membrane lipid environment on the functions and properties of receptors and the mechanism of coupling receptor interaction with cell activity, are emphasised.

For a pharmacologist it is rather sad to note that of the 23 authors only two have as their address a department of pharmacology. On a brighter note the addresses of the remaining 21 in departments of cell biology, biochemistry, psychiatry, pathology, medicine, and neurosciences, illustrate the wide range of readers who will find much of value and of interest in this book.

J. S. GILLESPIE

**Modern Pharmacology Toxicology Series Volume 12 Noncatecholic Phenylethylamines** Edited by Aron D. Mosnaim and Marion E. Wolf. (Pp. 536; illustrated; Sw fr 135.) Marcel Dekker: New York and Basel. 1978.

This book consists mainly of research papers given at two scientific meetings in 1975 and 1976 with some additional material to update and improve the balance of the presentation. Phenylethylamine is well known to pharmacologists as a molecule possessing all the basic requirements for sympathomimetic action but is probably unfamiliar to clinicians for the very good reason that, until recently, it was not believed to occur naturally in the body. In recent years there has been increasing

recognition that the enzymes involved in the production of noradrenaline and adrenaline may, by acting on unusual substrates or by missing out some stage in the synthetic pathway, produce other biologically active amines. Dopamine, as a transmitter in its own right, is the most firmly established of such compounds, and now there is the possibility that octopamine and phenylethylamine may also be of importance, especially in pathological conditions. Phenylethylamine rather than noradrenaline is the amine formed from phenylalanine when the early synthetic steps of introducing hydroxyl groups to form first tyrosine, and then dopa, are omitted. These papers describe the laboratory evidence that the amine occurs normally in the brain and can be released by electrical stimulation, that its levels are altered by drugs known to alter mood such as antidepressants and tetrahydrocannabinol, and that both it and its precursor phenylalanine have powerful effects in animals. Some clinical papers describe the use of phenylalanine in the treatment of depression. For those with a specific interest in this area of research, either as neuropharmacologists or psychiatrists, the book would be a useful research reference. For the more general pharmacologist, psychologist, biochemist, or for clinicians involved in mental illness, the importance of the amine is still so speculative and the standard of the contributions to this collection so variable that it is doubtful if it could be recommended either as an appropriate time in the research or a suitably condensed and balanced assessment of the problem.

J. S. GILLESPIE

**Muscle Disorders in Childhood** By Victor Dubowitz. (Pp. 282; illustrated; £15.00.) W. B. Saunders: London. 1978. This book is aptly titled and is a comprehensive survey of muscular problems in childhood. The first of the 12 chapters is concerned with the clinical and laboratory diagnosis of muscular disease in infancy, and thereafter the muscular dystrophies and myopathies, diseases of the lower motor neurone, myasthenia gravis and inflammatory myopathies are presented. The commentary is rounded off by the four final chapters which cover the floppy infant syndrome, conditions with muscle con-