

some types of fainting response in man. In the rabbit there is both the classic defence response and the "playing dead" reaction indicating that there are always several different pre-programmed patterns of behaviour and these can be switched in and out at will, depending on the environmental clues provided.

This complex account is much enlivened by good illustrations, careful editorial control and clear introductions and summaries to each section. The editors should be congratulated on providing a most valuable review which will be much welcomed by all those seeking to keep up with the accelerating pace of knowledge of central autonomic regulation.

ROGER BANNISTER

**Neurobiology of Incontinence.** Ciba Foundation Symposium 151 Series. (Pp 336; Price: £35.95.) 1990. Chichester, John Wiley & Sons Ltd. ISBN 0-471-92687-6.

CIBA have brought together many of the world authorities on urinary and faecal incontinence to discuss the problems of pathogenesis. Contributors are gathered from the disciplines of physiology, pharmacology, neurology, urology and proctology. The book starts with a review of innervation and pharmacology and proceeds to a consideration of functional assessment in the human patient. There is then a discussion of operative therapy with rather more of a bias towards anal incontinence than in most books of this type.

The eminence of the contributors ensures that the information in the reviews is comprehensive, up-to-date and critically presented. CIBA are to be congratulated for bringing together so many experts. While the adequacy of the review articles will be the attraction of this volume for those who are relatively unfamiliar with this interesting subject, it is the discussion section which may fascinate the more initiated reader. The overwhelming impression is of how relatively small the interdisciplinary understanding remains and of the very considerable value of looking at preconceived ideas from the point of view of other disciplines. The book will be provocative reading for all those who are already working in the field of incontinence and an essential introduction to all those who wish an overview of the subject whether from the aspect of basic science or clinical medicine.

M TORRENS

**Review of Biological Research in Aging.** Vol. 4. Edited by M ROTHSTEIN. (Pp 387; Price: \$175.00.) New York: Wiley-Liss, 1990. ISBN 0-471-56697-7

As the title indicates, this volume is part of a series directed at presenting reviews of recent work for biological scientists rather than clinicians. It covers a number of different aspects of aging ranging from evolution and genetics, through immunology and cell biology, to biochemistry. The coverage of species is similarly wide involving work on

protozoa, fungi, mice and man. This is not to mention the inevitable drosophila.

As far as readers of this journal are concerned, the main interest will lie in a collection of contributions on the neurology of aging with work relating to Alzheimer's disease being particularly well represented. There are reviews of such things as recent findings on the genetics of Alzheimer's disease, work on amyloid and the role of the striatum in aging. In addition, a useful discussion of some of the methodological problems that can be encountered in biological research into aging is worth a special mention.

In general, the standard of the contributions appears high, at least as far as can be ascertained by a reviewer who is less than expert in some of the topics covered. On the other hand, the more clinically relevant contributions, like that on the genetics of Alzheimer's disease, tend to deal with material that is also recently reviewed elsewhere. This reinforces the view that the present volume is essentially of interest to those whose concerns extend into fundamental biological issues. It is not an obvious purchase for the typical hospital library.

E MILLER

**The Human Nervous System.** Edited by G PAXINOS. (Pp 1195; Price: \$195.00.) San Diego, USA: Academic Press Inc, 1990. ISBN 0-12-547625-6

Interest in the anatomy, chemistry and pathology of the human brain has never been greater. Therefore, a book which is intended to provide a comprehensive account of human neuroanatomy is timely. The editor has commissioned acknowledged authorities to contribute the chapters that make up the book.

The book opens with an evolutionary perspective followed by five chapters on the spinal cord and peripheral nervous system. The three chapters on the spinal cord present an account of its organisation and connections and include high quality photomicrographs and drawings. The latter, particularly those which show three-dimensional representations, are very informative and provide good teaching material. The next group of chapters, a rather heterogeneous group, is devoted to the brainstem and cerebellum. There are chapters here which should not have been included because they are not about the human nervous system. For example in Chapter 10, G Holstege acknowledges that almost nothing is known about the descending limbic projections to the human brainstem and spinal cord and yet an entire chapter, based on work in the cat, is about these projections. There is an excellent review of the anatomy of the cerebellum by J Voogt and colleagues (Chapter 14) complete with superb illustrations. The following section includes nine chapters on the fore-brain. This section, too, contains a number of inconsistencies. Since there is a chapter devoted to the thalamus, why have a separate chapter on the limbic thalamus? Similarly, there is a 50 page chapter on the cerebral cortex, and yet an additional eight page chapter is devoted solely to the motor cortex. The sections here on the hypothalamus, basal ganglia, amygdala and hippocampus are of

exceptionally high quality, although the review of the amygdala is overdetailed (127 pages). A more homogeneous discussion describes the various sensory systems. This is followed by descriptions of the main neurotransmitter systems in the brain. It is rather unfortunate that this section is not accompanied by accounts of transmitter receptor localisation. Numerous studies have recently examined the distribution of receptor binding sites in the normal and diseased human brain.

Overall, this book fulfils its objective to be a useful guide to researchers and students. However, like so many multi-authored books, it is made up of chapters of uneven quality and depth of coverage. I do not think that too many individuals will rush to buy it at \$195. However, it is a good reference book and libraries should make it available to their readers.

JG PARNAVELAS

**Steroids and Neuronal Activity.** Ciba Foundation Symposium 153. Edited by D CHADWICK AND K WIDDOWS. (Pp 284; Price: £35.95.) Chichester: John Wiley & Sons, 1990. ISBN 0-471-92689-2

Each year the Ciba Foundation organises several multidisciplinary symposia on topics that seem ready for discussion by a small group of research workers. Steroids and Neuronal Activity is the published proceedings of such a meeting and contains the transcripts of 14 scientific papers and the general discussion which followed each presentation.

The general theme of the symposium was the examination of the mechanism of action of various steroidal substances on nervous tissue. These agents may act via known neurotransmitter systems, for example GABA, via induction of physical change in the lipid bilayer of the membrane or by indirect effects via the genome. Much of the work presented relates to the actions of progestins and oestradiol at cellular level and is undiluted "neuroscience-speak". Despite the technical complexity of the papers and discussion (predictably the most baffling being the presentations from Greece) the overall impression was one of fascination with the diversity of action of the steroid molecules on the central nervous system where parallel processing of hormonal substances in different nervous pathways seems a probable explanation for different modes of action.

Steroids and Neuronal Activity is well produced and clearly illustrated but is not a book for the clinical neurologists I know, despite its interesting insights. It will almost certainly adorn the workbench of most basic neuroscientists although at £35.95 it is relatively expensive.

DAVID JEFFERSON

**Otoneuro-surgery.** By W PELLE, M CANNONI AND A PECH. (Pp 220; Price: DM 298.) Heidelberg: Springer-Verlag, 1990. ISBN 3-540-50979-8

This book represents the collective experience in the surgery of lesions around the