the biology of dystrophin . . . has obscured a focused, scientific commitment to the needs of the patient . . . The main aim point of our research is not the making of dystrophin, or even restoring normal muscular histology; is the successful treatment of skeletal and cardiac muscle affected boys hoping they will lead normal lives".

This sets a sense of urgency which is clear throughout the monograph.

This book can be recommended to every Neurologist and Scientist working in the field of Duchenne/Becker Muscular Dystrophy for their personal shelves and should be in the Library of all Departments who are charged with the care of these boys.

It is to be hoped that this series will continue.

WJK CUMMING

Stress, The Aging Brain, and the Mechanisms of Neuron Death. By ROBERT M SAPOLSKY (Pp 429; Price: £49.50). 1992. London, The MIT Press. ISBN 0-262-19320-5.

This book is a comprehensive account of the role of glucocorticoids in cellular aging and neuronal death. The author has made many important contributions in this area. Inevitably the book is angled from the author's own perspective. The book is well structured and the text written in entertaining and engaging fashion. Dr Sapolski uses his imagination to help the reader understand certain concepts; for instance I found his parallel between neurons destined for programmed cell death and the trappings of a construction site such as scaffolding and porto-toilets and the work sheds interesting, if not slightly surprising given the oligophrenia that usually characterises such sites.

There are several useful "summaries of the book so far". This allows the reader to enjoy the "story" even though he may have missed previous episodes. The chapter on programmed cell death (apoptosis) was particularly well written and relatively up to date. The role of glucocorticoids and stress particularly with relevance to lymphocyte function and immune competence was particularly interesting.

The cause of aging and the biochemical changes that accompany it are the subject of increasing attention in the neurosciences. This is particularly so because of the relevance of these processes to neurodegeneration and selective neuronal death in the CNS. Does the aging process play any part in accelerating this phenomenon and if so, can these diseases (and presumably the aging process itself) be retarded? The suggestion that excessive exposure to glucocorticoids over lifetime can accelerate brain aging may be relevant in this respect. A feature of this theory is the self-regenerating cycle of hippocampal degeneration caused by glucocorticoid excess and glucocorticoid hypersecretion caused by hippocampal degeneration. It is proposed that degeneration of the hippocampal neurons is consequent upon the action of glucocorticoids in impairing the capacity of these neurons to "survive coincident neurological insults". These include hypoxia and ischaemic reperfusion damage, seizure activity and oxidative stress. It will come as no surprise to the reader that these activities are associated with the accumulation of excitatory amino acids.

Overall I believe this book will find interested readers amongst the steroid community and perhaps a small section of the neuroscience community but I doubt whether the bulk of neuroscientists involved in neurodegenerative research will find anything but certain sections of this book of value.

AHV SCHAPIRA

Epidemiology and Control of Neural Tube Defects. By JM ELWOOD, J LITTLE and JH ELWOOD (Pp 926; Price: £85.00). 1992. Oxford University Press. ISBN 0-19-261884-9.

This volume sets out to be a new edition of "Epidemiology of Anencephalus and Spina Bifida" by Elwood and Elwood (1980), but events overtook it. In addition to updating the original ground, including substantial advances in pre-natal diagnosis, it became necessary to review developments in the field of primary prevention, and the ethical and legal issues associated with neural tube defects (NTD).

Most of the book (more than twice as large as its predecessor) discusses the classical approaches to the epidemiology of NTD, each chapter reviewing the relevant literature *in extenso* and ending with a summary and comment. The generous use of Figures and Tables helps the reader to grasp the tremendous amount of information presented.

In the field of primary prevention, the results of the MRC vitamin supplementation trial were published as the book approached completion. The authors have, however, included a comprehensive account of its confirmation of the protective effect of high dose folic acid against recurrence of NTD. They could not wait for the outcome of the Hungarian study showing prevention of *first* occurrence of NTD by low dose folic acid & multivitamins (Czeizel and Dudas, *N Eng J Med* 1992;**327**:1832–5).

The ethical and legal issues relating to prenatal diagnosis, pregnancy termination, clinical trials and post-natal treatment (or non-treatment) of babies with spina bifida are thoroughly and thoughtfully reviewed by Professor Alastair Campbell. I wish Chapter 15 had been entitled "Nutrition" rather than "Diet", for there is more to the vitamin story than what people eat. Otherwise there is little to criticise. The book is beautifully produced and is a superb work of reference.

DICK SMITHELLS

Behavioral Endocrinology. Edited by J B BECKER, M BREEDLOVE and D CREWS (Pp 574; Price: £31.50 (P/bk), £58.50 (cloth)). 1992. London, The MIT Press. ISBN 0-262-52171-7 (P/bk).

Behavioural endocrinology is written as an undergraduate text book which reviews in a clear and interesting manner current knowledge of the effect of hormones on behaviour and of behaviour on the release of hormones. The main areas covered are sexual behaviour, parental behaviour, aggressive behaviour, the stress response, ingestive behaviours and biological rhythms. The main species covered are rodents but a wide number of other species are covered from invertebrates, to which a whole chapter is devoted, to frogs, snakes, lizards, birds and hyenas. The comparative approach makes for enjoyable reading and indicates how the influence of hormones on behaviour is inversely related to the development of the cerebral cortex. So what then does the book have to say about human behavioural endocrinology?

In the area of clinical psychoendocrinology some parts are disappointing. It is true that there are few findings that would merit detailed discussion but the endocrinology of depression and the behavioural consequences of Cushing's Syndrome would have merited a chapter in their own right but yet are hardly mentioned. There are also areas which provide useful "bridges" between basic and clinical behavioural endocrinology. Thus the development of learned helplessless—an animal model for depression—is dependent upon the activation of central glucocorticoid receptors. If undergraduates reading such a textbook do not know of the existence of such bridges they will never cross them.

For someone wanting an introduction to the effects of hormones on behaviour in the animal kingdom this is an excellent buy, and a very enjoyable read. It is not an ideal text for trainee psychiatrists or neurologists: but then it was not written for them.

S CHECKLEY

Handbook of Cerebellar Diseases (Neurological Disease and Therapy Series 16). Edited by RICHARD LECHTENBERG. (Pp 592 Illustrated; Price: $185.00). 1993. New York, Marcel Dekker, Inc. ISBN 0-8247-8776-5.

This multi-authored volume provides extensive coverage of cerebellar disease under major sections such as structural, neoplastic, vascular, degenerative, infectious, demyelinating, and metabolic categories. There are many strong contributions including chapters on embryology, anatomy and imaging diagnosis. Tumours, von Hippel-Lindau disease, radiation therapy and paraneoplastic disease are all covered well; for example I found it particularly helpful to see an account of the autoimmune aspects of paraneoplasia, and tabulation of the different cerebellar, antibodies. For the vascular specialist four chapters on cerebellar infarctions, haemorrhage, venous disease and transcranial Doppler seem the most impressive and reflect much of the recent interest in this area. The section on degenerative disease was clearly the most challenging to organise for it consists of assorted subject matter, often in brief contributions, including three chapters on Machado-Joseph disease, seven on Fridreich's ataxia and many contributions appropriately reflecting local experience. Nevertheless the range of authors and experience will be of particular interest to specialists. The chapter on alcohol, including considerable detail of animal studies of foetal toxicity, struck me as being appropriate justification for the US Surgeon General's warning to expectant women.

There are relatively few publications dedicated to cerebellar disease, and although this book does not include comprehensive coverage of the degenerations, it does contain some fascinating contributions and a feast for the hungry mind of the generalist. Specialists should also see it.

WRG GIBB