

Modern Pharmacology-Toxicology Volume 8 Receptors and Mechanism of Action of Steroid Hormones Part II Edited by Jorge R. Pasqualini. (Pp. 736; illustrated; Sw.fr. 130.) Marcel Dekker: New York. 1977.

This is the second in a two volume publication on the receptors and mode of action of steroid hormones. Part I dealt with the general concept of intracellular cytoplasmic proteins as receptors for steroid hormones with the isolation of these receptor proteins and, finally, with oestrogen and androgens as examples. The present volume continues with the glucocorticoids and mineralocorticoids followed by the applicability of these ideas in assessing the degree of hormone dependence of breast cancer and, finally, the regulatory role of steroid hormone receptors in the brain.

The five chapters are essentially separate essays with little evidence of overall editorial supervision. For example, chapter 8 gives 40 pages of references and full titles, whereas the remaining chapters content themselves with author and journal, and a corresponding reduction in space.

Nevertheless, the subject matter is highly topical, and in breast cancer an important essay gives a clear description of our knowledge in these areas with extensive references to the relevant literature up to 1974/75. The book is essentially aimed, if not at the specialist, at least at those who have special reason for interest in these steroid hormones and to those the volume can be recommended.

J. S. GILLESPIE

Chemical Pharmacology of the Synapse By D. J. Triggle and C. R. Triggle. (Pp. 654; illustrated; £20.00.) Academic Press: London. 1976.

New discoveries in the chemical process of neurotransmission have been a fecund source both of greater understanding in biology and important advances in medical treatment. In recent years the rate of advance particularly in central neurotransmission has been such that it is difficult for those working in the field, and impossible for those in allied sciences, to keep up. This formidable text bridges this gap most ably. It describes, at a cellular and molecular level, the nature of the

synapse, the regulation of both pre- and post-synaptic elements and the events which follow the release of transmitter. Throughout, the emphasis is on the fundamental nature of these events and this, together with extensive references to the original literature, does not make for light reading. Nevertheless, the reward is there for those who apply themselves and there will be few, whether pharmacologists, biochemists, physiologists, or clinicians, who, after reading it, will not see their own problems in a new light.

The book is well produced; there is a clarity and unity of style in spite of the double authorship. It should probably be regarded as a reference book rather than one to be read through, and as such can be confidently recommended to all biological scientists and clinicians with an interest in neural function.

J. S. GILLESPIE

Neurological Development in Infancy By Bert Touwen. (Pp. 150; illustrated; £5.00.) William Heinemann Medical Books: London/J. B. Lippincott Co.: Philadelphia. 1976.

This book is the result of a detailed and systematic study of neurological development in 51 normal infants. Each infant was examined at home by the author every four weeks until the stage of independent walking. At each visit Dr Touwen recorded the developmental stage of each of an extensive battery of test items. By simple graphical display and more complex statistical methods, he now presents the mode of development of each of these items and their interrelationships. Items which did not develop after birth or which showed a very rapid developmental course in early infancy are presumed to depend on early maturing neurological systems and such test items are suitable for inclusion in neurological examinations in infancy. A large number of other items showed a clear developmental sequence with an initial and final change during the study period and an appreciable developmental range. The details of many of these sequences are of great interest to neurologists. Of particular note is the development of voluntary grasping, in the course of which Dr Touwen has noted an upsetting, but fortunately

brief, phase of index finger pointing or 'tipping' in which the infant cannot pick up a small object, manifest between the stages of inferior pincer and mature pincer grasping. This tipping is thought to signal the linking of cortical and non-cortical mechanisms which have been maturing independently. Other studies of the relationships between the developing items bring some surprises—for instance, the dissolution of the palmar grasp reflex is not a straightforward prerequisite for the development of voluntary grasping. Regarding the assessment of development, this book does not of course contain a set of normative data but it points to the pitfalls of assessment and demonstrates soundly the variability between infants and between aspects of development in the same infant, and shows convincingly that single examinations are inadequate for neurological or developmental assessment in infancy. As a basis for further understanding and research into infant development it is essential reading.

J. B. P. STEPHENSON

Brain Dysfunction in Infantile Febrile Convulsions Volume 2 Edited by Mary A. B. Brazier and Flavio Coccani. (Pp. 384; illustrated; \$33.00.) Raven Press: New York. 1976.

It is a special pleasure to review the proceedings of the IBRO symposium on fever and the developing brain which was held in Toronto in the fall of 1975 as a satellite to the First International Congress of Child Neurology. Unlike many large international gatherings it was an exciting and human meeting, and this well-knit book reflects and focuses that excitement. The problem posed is why millions of the world's children develop febrile convulsions with fever, and why certain of them have devastating neurological sequelae; the aim is the prevention of the latter, if not the former. Opening chapters illuminate cerebral microdevelopment, and the development of monoaminergic, cholinergic, and prostaglandin systems. Thermoregulation and mechanisms of fever production (and prevention) are discussed in detail. On the clinical side, the pathology of febrile convulsions (Meldrum), seizure duration in the genesis of neurological sequelae (Aicardi and Chevrie), and the ante-

cedents of mesial temporal sclerosis and cerebral hemiatrophy (Falconer) lend weight to Margaret Lennox-Buchthal's plea for the organisation of health services in every community to prevent long febrile convulsions. The reader will notice dispute regarding the importance of pre-existing brain lesions, and whether (and how) age and sex determine the side of acquired cerebral damage. There is a tendency to deny the possibility of heterogeneity of pathogenesis of febrile convulsions, and implicit assumption that, in the Gastaut sense, all convulsions are epileptic rather than anoxic. Occasional errors—for example, Fig. 1, p. 328—have crept in but are remarkably few for a symposium of this kind.

This stimulating book is expensive for the private book shelf but it should find a place in all neurological and paediatric libraries.

J. B. P. STEPHENSON

Encyclopaedic Handbook of Medical Psychology Edited by S. Krauss. (Pp. 585; illustrated; £13.50.) Butterworth: London. 1976.

Conceived by the late Stephen Krauss, psychiatrist and philosopher, this volume aims, 'in the best tradition of Encyclopaedists from Diderot to the present day, to bring together . . . articles which, when taken together, would mirror the face of psychological medicine as it exists today.' Alas, the days of Diderot are long since past—even the three-volume *Encyclopaedia of Psychology* (1972) does not succeed in covering the whole of a narrower field—and the direction 'take together' is one which can hardly be fulfilled for 573 pages of articles from Accident Proneness to Yoga Therapy.

The collection ranges from authoritative distillations of standard topics in psychiatry—for example, Anxiety by Lader; Developmental Dysphasia by Espir and Rose; Intelligence by Vernon; Skill by Welford, and many others—to idiosyncratic articles, presumably by Krauss's acquaintances, on topics of their choice—for example, Artistic Experience by Helen Rosenau, Economic Behaviour by Hultman, Folklore by Seguin, Hope by Stotland, Speech and Reason by Abse—which give rise to some odd juxtapositions, such as Child Guidance Clinics (Adlerian) followed by

Child Guidance Clinics (Great Britain), and include the entertaining suggestion by Allen that preventive measures for sexual deviations include 'weaning after breast feeding at the proper time, normal feeding with hard biscuits to bite, and no excessive interest in the bowels by the parents'.

Between these extremes lie summaries by authorities which are inadequate—for example, half a page on Autistic Children by Wing—and others which are (predictably) biased—for example, Child Development by Anna Freud (which is, however, compensated for by a masterly view of Life-span Psychology by Charlotte Bühler). These considerably diminish any interest, or use, which the volume might have, a diminution which is emphasised by numerous omissions from 'the face of psychological medicine as it exists today'. For instance, does a neurologist want to find out something about abreaction? He will not find it here; nor anything on dreaming; nor will the psychiatrist find any account of the various aspects of psychopharmacology, save a description of hallucinogens by Buckman.

The most interesting articles in the book are the unexpected excursions—Abercrombie on Psychological Aspects of Architecture, Taylor on Environmental Factors, three articles on Culture and Society, to name but a few. It would perhaps have been better to expand these into a *Festschrift* for Krauss, rather than to have persevered with this very uneven patchwork.

JOHN MCFIE

Acupuncture Anesthesia in the People's Republic of China (Pp. 73; \$5.75.) National Academy of Sciences: Washington. 1976.

Recurrently, the Western world discovers China; and whenever this happens, they turn to each other and say 'How amazing! The Chinese treat disease by just digging needles in'. A short and interesting report of this repeated awareness of acupuncture was written by McMenemey as an editorial for the *British Medical Journal* (22 December 1973). Let us hope that the present interest in acupuncture has come to stay. The amount of research now being undertaken in the United States into the interactions of different inputs from

various parts of the body is starting to be rewarding; and that is what acupuncture analgesia is all about.

The short pamphlet being reviewed here is a report of a group of North American neurologists, neurophysiologists, and anaesthetists who visited China to observe operations being done under acupuncture analgesia. It does not concern other aspects of acupuncture, such as the treatment of chronic painful conditions or various diseases. This short report has taken two years to come out, and so most of the information in it is now out-of-date.

Apparently well-planned research on the physiology of acupuncture analgesia used instead of general anaesthesia, is going on in China. It has not yet been established what peripheral receptors are involved, nor what the central mechanisms are. The American visiting group reported that 'the technique being employed are generally comparable to those being applied to the problem of pain in research centers in the West and the Chinese investigators were fully cognisant of the problems and current states of research on the neurophysiology of pain'.

For acupuncture analgesia, choice of points was not standardised. The group reported that 'an operation might be performed with needles inserted into the extremities or the lower bar region in one hospital and the same operation performed in another hospital with needles inserted in totally different sites, such as the pinna of the ear'. The needles were usually 'inserted into the underlying muscle mass'; and the muscles were always contracting repetitively. Electric stimulation of the needles was used; the pulse duration 0.1 ms, voltage 0.25 to 48 V, and the rate started off at about 3 Hz and was then increased up to 50 Hz; some acupuncturists increased it to 200 Hz. Acupuncture analgesia was not used on children under the age of 15 years.

Those who read this pamphlet will be left in the same mental state as I think the visiting group was left in, and which was well put to me by one of a group of Danish doctors who studied acupuncture in China. 'When I went to China I was confused. And when I left, I was still confused. But at a higher level'.

P. W. NATHAN