

Notices and Books

BRAIN TUMORS. Scientific Basic, Clinical Investigation and Current Therapy. Edited by D.G.T. Thomas and D.I. Graham. Published by Butterworths - London, Boston, Sydney, Wellington, Durban, Toronto, 1980. 382 pages. \$74.95 (U.S. Funds).

"He who cares for patients suffering from brain tumour must bring to his problem much thought and stout action. There is need also of a formidable optimism, for the dice of the Gods are loaded." This fifty year old quotation from Foster Kennedy opens Bryan Jennett's lucid forward to this multiauthored review volume. As Mr. Jennett pointed out, the fifty subsequent years of clinical and basic research effort into the secrets of malignant glioma have not led to dramatic results where it counts, — extended useful patient survival. Nevertheless, what progress has been made, has occurred in the last ten years because of collaborative efforts. As headway is made via various investigative modalities, there is every reason to believe that new, more complex collaborative efforts will yield further hopeful results.

In view of this, this book of eighteen tightly written chapters, represents a timely review of every clinical and research aspect of malignant glioma. Two-thirds are devoted to basic science and one-third to clinical aspects. In fact, only the last three chapters are devoted to the treatment of gliomas.

The authors are from both sides of the Atlantic and are acknowledged experts in their field. Although the data in this book could be obtained from a careful search of the recent literature, it is the bringing together of the diversified contents under one cover which is its strength.

The chapters in general are concise, objective and critical. Most chapters end with definite, sometimes provocative statements as to particular unsolved problems and directions in future research. The basic science chapters which could have been

overpowering for clinicians, are written in a very understandable fashion, often containing their own glossaries. The various chapters are well and recently referenced.

I thought that the chapters on Animal Models by Bullard and Bigner, Humoral Immunity by Kornbluth, Neuroradiology by Kendall, Pathology by Graham and the closing clinical treatment chapters were superb. The book is well edited with no repetition and with cross references used frequently. The illustrations are clear and well chosen.

I would highly recommend this book for neuroclinicians and oncologists interested in improving their understanding and handling of patients with malignant glioma. It would also be an excellent text for residents in the same fields to gain an overview of this complex problem.

D. Fewer MD

EEG TECHNOLOGY. Third Edition, 1980. Cooper R., Osselson J.W., Shar J.C. Butterworths & Co. Boston. 344 pp. \$29.95 (U.S.)

The third edition preserves the original format. Coverage of basic electrophysiological functions, electrode characteristics and virtually all problems associated with recording and subsequent evaluation are retained.

Although there is little change in the organization of chapters, there is updating wherever necessary. Discussion of frequency response controls is expanded and chapter IX on EEG Signal Analysis is revised in an attempt to clarify this complex subject. More detailed information on the description of power spectral analysis using digital techniques is available.

Electrical safety and in-phase potentials are small editions. A whole new chapter is devoted to the investigation of event-related potentials which has recently established itself along with electromyography and electroencephalography as a routine me-

thod of clinical neurophysiology. Something for the future, is a description of Hjorth's source derivation. The source concept measures the difference between the potential at one electrode and a *weighted* average potential of electrodes surrounding the electrode of interest. Hjorth claims that it gives a relatively less active electrode, and is useful for the emphasis of focal features in the EEG. Comparison is made between source derivation and the conventional techniques of referential and bipolar derivation.

All chapters are well referenced with advice in some on further reading.

Since the first edition in 1969, this book will remain invaluable both to the technologist and electroencephalographer as an understanding in basics and a guide in EEG technology.

N. Pillay, M.D.

THE ROLE OF PEPTIDES IN NEURONAL FUNCTION. Edited by Jeffery L. Barker and T.G. Smith, Jr. Published by Marcel Dekker Inc. - New York and Basel. 1980. 784 pages. \$95.00 U.S. funds.

Over the past decade, peptide neurobiology has been in its ascendancy, achieving a position of extraordinary prominence with the identification of the endorphins, the natural ligands for the opiate receptors. The editors of this volume point to the rapid developments in this field, exemplified by the fifteen separate symposia held and two journals on the neurobiology of peptides started during 1979 and 1980, alone. A host of peptides have been identified in brain, all of which can be reasonably designated as candidates as neurotransmitters or neuromodulators. This newly described family of peptides in brain comprises, among others, most of those previously designated for specific roles in the gastrointestinal tract such as secretin, cholecystokinin, gastrin and others. Conversely, peptides presumed to be specific products

of the central nervous system, including neurotensin and hypothalamic releasing factors, have now been identified in both nervous and secretory cells of the gastrointestinal tract and its accessory organs, and in other tissues. The distinction between nerve cells and non-nervous secretory cells is, to a large extent, arbitrary, since all nerve cells are neurosecretory and elaborate chemical mediators that act locally and/or at a distance.

Some of the contributions in the present volume have been presented in identical or similar form in previous publications. This book is clearly not one that can be read by the non-specialist. However, it is the editorial aim "to illuminate a significant area of neuroscientific endeavor by reviewing the principle strategies that have evolved in observations on peptides which have thus far received the most extensive, multidisciplinary study". On this basis, it is noteworthy that there is scant coverage of storage, secretion and neuronal actions of the endorphin peptides; however, this apparent neglect may have been intentional because of the extensive treatment this family of peptides has received in numerous symposia, monographs and reviews.

For the non-specialist striving for an introduction to peptide neurobiology, the individual contributions represent summaries of research in the forefront by acknowledged leaders in their respected fields. In addition, several chapters are in the nature of reviews of specific peptides and include new and original insights into the physiological roles of these putative transmitters. For those more versed in some area of neurobiology, this collection of papers presents an up-to-date description of current knowledge and approaches to the study of the physiology, pharmacology and pathology of specific neuropeptides. Literally, every facet of neuropeptide research is covered:

microscopical localization, brain distribution, biosynthesis, storage, release and degradation, electrophysiological effects, receptor types and distribution, and behavioral and other effects including those in man.

A book on neuropeptides of more value to the non-specialist should probably include consideration of neural and non neural actions of a given peptide in the economy of the body, the multiplicity of biological messages contained within the amino acid sequence of a single peptide, the multiplicity of actions exerted by each of the known neuropeptides, the complexities of peptide neurotransmission derived from co-storage and co-secretion of multiple peptides or of peptides plus amines in the same neuron, and consideration of the criteria that designate a brain peptide as a viable candidate as neurotransmitter. Some of these aspects are competently and thoroughly treated for specific peptides in individual chapters.

Although this book is valuable in its own right, I look forward to a treatment of the neuropeptide field, eventually, which goes beyond the cataloguing of new effects of old peptides and of standard pharmacological tests applied to new peptides. There appear to be few, if any, central circuits that are not influenced by each of the known neuropeptides. Perhaps it is time for assessment of known neuropeptides for common threads in their storage, secretion and actions that may provide a basis for new hypotheses that can create order out of apparent chaos. Such a reappraisal may have the salutary effect of directing future research to solution of fundamental problems of multiple peptide transmitters with overlapping structures, targets, specificities and effects.

Frank S. LaBella

Books Received

Annual Research Reviews: Endocrinology RENIN - Volume 5. By Suzanne Oparil, Richard E. Katholi, Sherry R. Winternitz. Published by Eden Press, 245 Victoria Avenue #10, Westmount, PQ H3Z 2M6. January 1981. 368 pages. \$38.00 Canadian Funds.

THE FACIAL PALSIES - Their Physiopathology and Therapeutic Approaches. By Joseph Moldaver and John Conley. Published by Charles C. Thomas, Springfield Illinois. 1980. 258 pages.

Progress in Pharmacology - Volume 3, Number 2. ACTION OF DRUGS ON THE CEREBELLAR ELECTRICAL ACTIVITIES. By G. Gogolak and Ch. Stumpf. CYCLIC NUCLEOTIDES AND THE NERVOUS SYSTEM. By V.V. Myllyla, E.R. Heikkinen, E. Hokkanen, H. Vapaatalo. Published by Gustav Fischer Verlag, Stuttgart-New York. 1980. 106 pages. \$42.50 U.S. funds.

THEORETICAL APPROACHES IN NEUROBIOLOGY. Based on a Work Session of the Neurosciences Research Program. Edited by Werner E. Reichardt and Tomaso Poggio. Published by MIT Press, Cambridge-Mass. 1980. 252 pages. \$20.00 U.S. funds.

THE BORDERLAND OF EPILEPSY - A Reappraisal. By Mogens Dam and Jill Gordon Klee. Published by Scriptor Publisher ApS, Copenhagen, Denmark. 1980. 104 pages.

EEG PRIMER. By R. Spehlmann. Published by Elsevier/North-Holland and Biomedical Press - Amsterdam, New York, Oxford. 1981. 473 pages.