

**PRACTICAL GERIATRIC MEDICINE.** Edited by A. Norman Exton-Smith and Marc E. Weksler. Published by Churchill Livingstone 1985. 475 pages. \$78.50 Cdn.

Fifteen percent of the population today is over the age of 65. This fraction will increase with each passing decade and the number of older persons we are called upon to look after will increase proportionately.

This book is divided into three sections: the first deals with general aspects of aging, the second deals with illness in the elderly with chapters addressing disease in each of the systems. The third section deals with society and the elderly patient. For the most part this book is aimed at the general practitioner who is looking after a geriatric population. The subjects, especially those dealing with the nervous system, are too superficial to be of much value to a neurologist.

There are, however, three chapters which might be of some interest to the specialist in neurology who is dealing with an elderly patient. The first is a unique chapter dealing with the approach to a patient who has fallen where a useful paradigm is presented which takes the reader through an orderly approach to the diagnostic possibilities. Another useful chapter deals with the prevention and care of bedsores, seen not infrequently in the elderly patient with stroke confined to bed. The last chapter deals with prescribing habits in the elderly and some of the pitfalls to be avoided.

In summary, therefore, this book presents a comprehensive but superficial approach to the elderly patient which, with the few exceptions mentioned, is of little value to the practicing neurologist.

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**BIOLOGY OF THE NERVE GROWTH CONE.** Edited by Stanley Kater and Paul Letourneau, 1985. Published by Alan R. Liss Inc., New York. 351 pages. \$62 Cdn. approx.

In 1890 Ramón y Cajal was the first to see the elongating tips of developing nerve fibres, using Golgi silver techniques. He labelled this embryonic axonal projection the 'growth cone', thus confronting the prevalent theories of Schwann (1839) that nerve fibres arise from fusion of chains of sheath cells and of Hensen (1864, 1876) that axons develop by maintenance of daughter cells that migrate apart to differentiate into still connected neuron and target pairs, as well as Golgi's (1886) postulate of a neural syncytium. This book is an up-to-date statement of our present knowledge of the growth cone for establishing the many near and distant synaptic connections of the developing nervous system.

The monograph actually is a reprinting of a collection of original articles published in 1985 in the *Journal of Neuroscience Research* (vol. 13, nos. 1/2). After an interesting historical introduction, it is divided into three groups of chapters written by 50 contributing developmental neuroscientists: growth cones in vivo; growth cones in vitro; and electrophysiology of growth cones. Morphological, ultrastructural, physicochemical, and electrophysiological aspects of neuronal development are all discussed, as well as a consideration of external influences on axonal growth, such as chemotaxis, steric guidance, haptotaxis

(substrate adhesiveness), the attraction to or repulsion from other cells upon physical contact, and orientation in electric currents. Directional movement of other kinds of cells (e.g. tissue macrophages; growth of capillaries into tumours) is compared with neuronal growth (JP Trinkaus). The proliferation of ribosomes under developing spine synapses is discussed in context by Steward and Falk. Some chapters deal with specific examples of specialized growth cones, as in the retinotectal pathway of the frog (Reh and Constatine-Paton; Harris et al.). Experimental and genetic models of abnormal growth cones also are considered such as the weaver mouse cerebellum (Willinger and Haaksva).

I found this book to be a good summary and perspective of embryologic axonal projection systems since Cajal's original work, while again confirming Cajal's genius of insight into dynamic biological processes from studying static morphological appearances. The volume is attractively produced and the photomicrographs are of good quality. The only annoying distraction I found was that the U.S. publisher, with typical linguistic arrogance, has deleted all accent marks from the titles of French reference citations (punctuation of English titles is retained); even in the preface when Cajal's original term « *cône d'accroissement* » is mentioned, the printer has managed to misspell both French words! Nevertheless, I recommend this book.

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**TEXTBOOK OF NEUROPATHOLOGY 1985.** By Richard L. Davies and David M. Robertson. Published by Williams & Wilkins. 900 pages. \$170 Cdn approx.

All aspects of Neuropathology with the exception of neoplasms, peripheral nerves, muscles, the pineal gland and the pituitary gland are covered in this multi-authored textbook. An explanation for the omission of each of the above subjects is readily available. The text is comprehensive but certainly not encyclopedic.

The first 5 chapters are devoted to cell types and cellular reactions: Chapter 1 — Neurons and Astrocytes, Chapter 2 — Oligodendrocytes, Chapter 3 — Microglia, Chapter 4 — Meninges, and Chapter 5 — Choroid Plexus, CSF, Cerebral Edema and Herniation Phenomena. Each chapter is well-illustrated, comprehensive and up-to-date.

Separate chapters are devoted to Congenital Malformations of the Nervous System, Perinatal Pathology, Inherited Metabolic Disease, and Exogenous Toxic Metabolic Diseases. Norenberg and Gregorios' chapter on Central Nervous System Manifestations of Systemic Disease is novel, informative and current. Raine's treatment of Demyelinating Disease provides excellent illustrations and a relevant clinical text. Garcia's chapter on Circulatory Disorders is well illustrated and the concepts well presented; yet the chapter does not contain a single CT scan. Infections are treated in two chapters, Viral Infections and Infections due to Bacteria, Fungi and Parasites. Degenerative Diseases including most of the dementias are dealt with in an insufficiently illustrated chapter separate from a concise short chapter on Alzheimer's disease by Terry. Cerebrospinal trauma is presented in a traditional fashion.