Books Received

A HISTORY OF NEUROSURGERY. IN ITS SCIENTIFIC AND PROFESSIONAL CONTEXTS. 1997. Edited by Samuel Greenblatt, T. Forscht Dagi, Mel H. Epstein. Publishd by The American Association of Neurological Surgeons. 625 pages. $C156.00 approx.

CLINICAL NEUROLOGY – SECOND EDITION. 1998. Edited by C. David Marsden, Timothy J. Fowler. Published by Oxford University Press Canada. 446 pages. $C71.50 approx.

DIAGNOSTIC NEUROPATHOLOGY. 1998. By Harry V. Vinters, Michael A. Farrell, Paul S. Michel and Karl H. Anders. Published by Marcell Dekker, Inc. 669 pages. $C292.50 approx.

DISORDERS OF BRAIN AND MIND. 1998. Edited by Maria A. Ron, Anthony S. David. Published by Cambridge University Press. 373 pages. $C110.50 approx.

DIZZINESS, HEARING LOSS AND TINNITUS. 1998. By Robert W. Baloh. Published by F.A. Davis Company. 256 pages. $C84.50 approx.

EPILEPSY AND OTHER NEUROLOGICAL DISORDERS IN COELIAC DISEASE. 1997. Edited by G. Gobbi, F. Andermann, S. Naccarato, G. Banchini. Published by John Libbey & Co. Ltd. 378 pages. $C148.20 approx.

GAMMA KNIFE BRAIN SURGERY. 1998. Edited by L.D. Lunsford, D. Kondziolka, J.C. Flickinger. Published by Karger. 228 pages. $C244.40 approx.

HUMAN BEHAVIOR. AN INTRODUCTION FOR MEDICAL STUDENTS, 3rd EDITION. 1998. Edited by Alan Stoudemire. Published by Lippincott Raven. 532 pages. $C38.94 approx.

INCLUSION-BODY MYOSITIS AND MYOPATHIES. 1998. Edited by Valeris Askanas, Georges Serratrice and W. King Engel. Published by Cambridge University Press. 393 pages. $C162.50 approx.

ISCHEMIC STROKE: FROM BASIC MECHANISMS TO NEW DRUG DEVELOPMENT. 1998. Edited by Chung Y. Hsu. Published by Karger. 166 pages. $C179.73 approx.

MOLECULAR AND CELLULAR NEUROBIOLOGY CORTICAL PLASTICITY LTP AND LTD. 1998. Edited by M.S. Fazeli and G.L. Collingridge. Published by Oxford University Press Canada. 253 pages. $C108.00 approx.

MOLECULAR AND CELLULAR NEUROBIOLOGY. GLIAL CELL DEVELOPMENT: BASIC PRINCIPLES AND CLINICAL RELEVANCE. 1998. Edited by K.R. Jessen and W.D. Richardson. Published by Oxford University Press Canada. 255 pages. $C108.00 approx.

MOLECULAR AND CELLULAR NEUROBIOLOGY. MOLECULAR BIOLOGY OF THE NEURON. 1998. Edited by R.W. Davies and B.J. Morris. Published by Oxford University Press Canada. 399 pages. $C121.50 approx.

OUTCOMES IN NEUROLOGICAL AND NEUROSURGICAL DISORDERS. 1998. Edited by Michael Swash. Published by Cambridge University Press. 612 pages. $C156.00 approx.

RUSSELL AND RUBINSTEIN'S PATHOLOGY OF TUMORS OF THE NERVOUS SYSTEM, VOLUME 1: EPIDEMIOLOGY. VOLUME 2: PATHOLOGIC ANATOMY. 1998. Edited by Darell D. Bigner, Roger E. McLendon, Janet M. Bruner. Published by Oxford University Press Canada. 1372 pages $C421.95 approx.

SURVEYING AND PREVENTING THE COMPLICATIONS OF DIABETES IN NOVA SCOTIA. 1997. By Diabetes Care Program of Nova Scotia Complications of Diabetes Subcommittee. Published by Diabetes Care Program of Nova Scotia. 80 pages. $C26.75 approx.

THE CNS IN ACTION – 2 CD'S. THE OCULAR MOTOR SYSTEM AND THE VESTIBULAR SYSTEM. 1998. By Jean-Marie Peyronnard, Louise Charron. Published by SSB Multimedia Medical Series. $C221.00 approx.

Book Reviews

NEUROMUSCULAR DISEASES DURING DEVELOPMENT. 1997. Edited by Fernando Cornelio, Giovanni Lanzi and Ermellina Fedrizzi. Published by John Libbey & Co., Ltd., London, U.K. 154 pages. $C88.00

This small volume contains a wealth of mostly up-to-date data on a variety of childhood myopathies. Though the title implies a correlation with ontogenesis, this aspect is not a particularly strong theme of the book. The tome is actually the published papers of the Postgraduate Course of the Peirfranco and Luisa Mariani Foundation, which was held in Pavia, Italy, 8-10 March 1995. Of the 15 chapters, preface and conclusion, two were written by French authors, one by Swiss authors and the rest are Italian works. It is refreshing to read these authors and compare their concepts with the more familiar North American approaches to myology. I was both reassured, but also a little disappointed, to find that most of these chapters could easily have been written by Canadian or American authors and that Italy is indeed "in the loop" with us in neuromuscular diseases. The number of figures is small but they are well chosen. The book is well indexed and the references at the ends of each chapter are current.

The first two chapters deal with metabolic myopathies in general and mitochondrial cytopathies in particular. They are well written, authoritative, modern in concept and data presented, and are excellent summaries of an increasingly important topic. Chapter 3 is a brief but concise and authoritative statement by Michel Fardeau and his colleagues. Chapter 4 entitled "Dystrophinopathies" is too brief and does not discuss the most recent concepts of dystrophin-related glycoproteins and their relation to dystrophin, and does not discuss a possible role of dystrophin in diseases other than classical Duchenne/Becker muscular dystrophy. Chapter 5 on congenital myopathies by Carlo P. Trevisan contained many correct facts, but I disagree with the attempt to incorporate congenital muscular dystrophy, infantile myotonic dystrophy and other progressive degenerative myopathies in the category of "congenital myopathies" because their expression at birth or in early infancy does not automatically

qualify them for this specific rubric which is traditionally defined in part as nonprogressive diseases. Specificity is a precious scientific treasure and should not be degraded to generality. I also found the discussion of congenital muscle fibre-type disproportion (CMFTD) to be misleadingly incomplete because only the pure congenital myopathy was discussed, and the broad differential diagnosis of this syndrome defined by muscle biopsy was not presented, though brief mention was made that CMFTD may accompany some other specific myopathies. The important association with cerebellar hypoplasia was not noted, and is an example of a nongenetic cause of this congenital myopathy. I also disagree with the statement that CMFTD exhibits well documented transmission as either an autosomal recessive or dominant trait. The autosomal dominant form is poorly documented and, in my experience, many of these patients later are proved to have autosomal dominant nemaline rod myopathy.

Chapter 6 deals with myotonic disorders and presents modern concepts of ion channel defects. Other chapters address various childhood neuropathies, spinal muscular atrophy, and issues of rehabilitation including orthopaedic treatments with emphasis on scoliosis, respiratory physiology in neuromuscular diseases and home ventilation. Final chapters deal with molecular genetic prenatal diagnosis and genetic counseling.

In general, I found this book to be authoritative, particularly in the presentation of molecular and genetic information, and would recommend it to paediatric neurologists and especially to those with a particular interest in neuromuscular disorders, despite some concepts with which I disagree. Even these provide intellectual stimulation if one already is familiar with the diseases. I do not know how available the volume will be in Canada, but surely it can be special ordered from a medical bookseller.

Harvey B. Sarnat
Seattle, Washington, U.S.A.

MAGNETIC RESONANCE IN MULTIPLE SCLEROSIS. 1997. By David H. Miller, Jürg Kesselring, W. Ian McDonald Donald W. Paty and Alan J. Thompson. Published by Cambridge University Press. 200 pages. $C110.50

This book, written by an internationally renowned group of multiple sclerosis experts is a welcome addition to multiple sclerosis literature. Using a well organized approach, the authors thoroughly review the key areas of magnetic resonance imaging as it relates to multiple sclerosis. The book covers the impact of magnetic resonance imaging (MRI) in multiple sclerosis, magnetic resonance techniques, spectrum of abnormalities in multiple sclerosis, differential diagnosis, role of MRI in assigning prognosis, MRI's impact on understanding pathogenesis and mechanisms of disability, and use of MRI in clinical trials.

The book assumes a basic understanding of the underlying principles of magnetic resonance imaging. The chapter on techniques primarily focuses on conventional imaging although newer techniques such as fast magnetic resonance imaging, magnetisation transfer imaging, and magnetic resonance spectroscopy are also included. The role of functional MRI in multiple sclerosis (MS) is not discussed. The MRI findings in specific sites particularly germane to the study of multiple sclerosis (optic nerve and spinal cord) are nicely reviewed. The chapter covering the spectrum of abnormalities in multiple sclerosis is thorough and well written. Its only omission is failure to include MS variants of Balo, Schilder and Marburg.

The chapter on differential diagnosis is extremely comprehensive and includes not only mindful discussion of MRI findings of relevance to the differential diagnosis of MS but also frequently mentions distinguishing clinical, evoked potential and CSF findings. The chapter on assigning prognosis covers MRI abnormalities in healthy individuals, healthy relatives of patients with multiple sclerosis, clinically isolated syndromes (including subsequent risk of developing multiple sclerosis and risk of disability) and risk of disability in established multiple sclerosis. A separate chapter provides interesting insights into the biology of multiple sclerosis and discusses the role of MRI in advancing understanding of the pathological evolution of lesions in multiple sclerosis including disruption of blood brain barrier, inflammation, demyelination, gliosis, and axonal loss. A final chapter addresses the utility of MRI in clinical trials and reviews natural history, serial MRI studies, implications of clinical MRI relationships, MRI results from clinical trials performed to date and provides practical recommendations for the use of MRI in clinical trials. Specific helplful guidelines are provided in three appendices.

The book is generally very well written and highly readable. There is overlap between some chapters but often this serves to reinforce important points. The book is extensively referenced up to 1996 and accurately indexed. Tables are well used throughout the book to summarize concisely significant findings. The MR images are generally of high quality although some appear somewhat out of focus.

In summary, this is an excellent, up-to-date and thorough review of magnetic resonance in multiple sclerosis. It is to be highly recommended to neurologists, neuroradiologists and neuroscientists with an interest in MS.

Marika Hohol
Toronto, Ontario.

THE NEURON: CELL AND MOLECULAR BIOLOGY 2nd EDITION. 1997. By Irwin B. Levitan & Leonard K. Kaczmarek. Published by Oxford University Press. 543 pages. $C66.95

We are in the midst of a revolution in the diagnosis and treatment of neurological disorders based on the spectacular developments that have occurred in neuroscience today. To have a grasp of the fundamental science underlying our rapidly changing clinical world, this book fits the bill. Levitan and Kaczmarek are two internationally recognized cellular neurobiologists. The first edition of this book was published in 1991 and the profound changes in the second edition reflect the developments in neuroscience research over the past several years. They emphasize the unity of cellular biological mechanisms from invertebrate to vertebrate preparations. There is no doubt that the application of concepts from fundamental cell biology to the nervous system has laid the foundation of our understanding of neurological diseases today. These concepts are well described in this book. For example, much of our understanding of the cellular mechanisms of learning and memory come from important work done on the marine sea slug. The book is very up-to-date and the concepts are very clearly presented with diagrams that are simple and easy to understand. Some interesting historical context is given.

This book does not specifically address the foundations of neurological disease, but rather gives one an understanding of the fundamentals of neurobiology. Like any introductory book of this nature, not all subjects can be covered in depth. For example, it is assumed that the reader understands some molecular biology, which