

unchanged with the exception of the addition of a new section on "Magnetically evoked motor potential"). In each of the 27 chapters, the reader will find carefully written, and thorough summaries of background and new knowledge. Almost without exception, the sections are comprehensive and contain a wealth of information that will be of interest to a wide audience. The chapters are well illustrated with excellent tables and informative figures and most are followed by encyclopedic reference lists which will be useful to all readers. There are four new chapters on experimental models of autoimmune demyelination, aminopyridines, treatment with intravenous immunoglobulins, and antigen-specific immunotherapies reflecting the interest in these areas in recent trial research. The MRI chapter (Stone, et al.) contains a much needed and clear review of modern MRI techniques and the overview of immunosuppressive drug therapies (Ellison), an area of considerable recent controversy, is particularly well done.

There is much in this book that will be of interest to physicians and scientists engaged in basic and clinical research of the demyelinating diseases. In addition, as is implied by the title, the clinician caring for patients with these illnesses will find information that will be useful in making the diagnosis, and recommending treatment options to patients. Residents in their last year of training, MS post-doctoral fellows, neurologists, and scientists working in this area, and clinicians who regularly see these patients (neurologists and psychiatrists, particularly) will want to read this excellent text.

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THE BIOCHEMICAL BASIS OF NEUROPHARMACOLOGY. 7th EDITION. 1996. By Jack R. Cooper, Floyd E. Bloom, Robert H. Roth. Published by Oxford University Press Canada. 518 pages. \$C42.00

The first edition of this volume appeared in 1970, and I can still recall using it as a graduate student to learn about acetylcholine, the monoamines and, at that time, the potential (but still suspect) amino acid transmitters, glutamic acid and GABA. Those categories pretty well covered the neurotransmitters of the time. Now in its seventh edition, the volume has doubled in size from its first appearance, yet, the above neurotransmitters still occupy a dominant place in the book. Other features of early editions include a highly accessible price, a lack of colour illustrations (most likely responsible for the former), figures of biosynthetic pathways and structural analogues and the occasional play on words (an *axon* to grind...). However, the authors, who are among the most distinguished neuropharmacologists of our era, have placed this edition firmly in the currents of modern neuropharmacology. A substantial number of references date from 1992 or later. The chapters on the tried and true transmitter candidates described above include the latest molecular descriptions of receptor subunits and alternate splicing variations. Indeed, there is an entire chapter devoted to "Molecular Foundations of Neuropharmacology", where the reader is briefly introduced to some of the modern strategies used to identify new transmitter candidates and receptors. Another, on neuromodulation, describes the complex intracellu-

lar pathways that can be activated and gaseous modulators that can be elaborated after ligand binding to a receptor. Selected neuropeptides of the 50 or more known to be present in neural tissue are dealt with in their entirety in one chapter, and other deals with the popular, yet controversial data obtained from some model preparations of learning and memory. A new appearance in this edition is a chapter dealing with the pharmacological basis of neurological and psychiatric diseases and possible avenues for their treatment.

This small book is extraordinarily successful in distilling the significant findings in neuropharmacology into a clear and very readable format. Enough history is presented to show how the field developed (often in the authors' own laboratories), and the modern developments are presented in a fashion that is understandable even to the novice. I particularly like the way in which the authors point out the many unresolved problems and new directions; these surely give hope to the novice student that they can still make their mark in this exciting field.

Given the number of subject areas that are covered in this book, I found very few errors. One that did jump out to a Canadian is the description of the domoic acid poisoning incident as a *west* coast phenomenon; despite the uncertainties of the Canadian political scene, I am certain that Prince Edward Island has always been on the *east* coast of Canada. It also appears as if the care and attention given to the body of the text did not extend to the index. As examples of the many inaccuracies, LSD is indexed to a brief mention of its effect on learning, but to find the very extensive text detailing its involvement in serotonergic pathways, one would have to look under "hallucinogens". Marijuana is only indexed under "hashish" and the index to amphetamine only refers to its involvement in norepinephrine systems and ignores the fairly extensive discussion in the subsequent chapter on its interaction with dopamine.

Some biases obviously have to exist in terms of deciding what to include in this ever expanding field. Nonetheless, it is odd that angiotensin II has been dropped from this edition, despite the impressive evidence for its involvement in central control of blood pressure and drinking behaviour. The authors titillate by introducing the cytokines as molecules "too important to pass by", but plead that space constraints preclude much attention to their powerful central effects on the immune system. Has the time come to drop some of the detailed descriptions of biosynthetic pathways and structure-activity relationships of the monoamines to deal more adequately with some of these new and exciting molecules?

One cannot dispute the success of a book that endures 25 years or more and goes into a seventh edition. I recommend it most highly as *the* source for all who aspire to learn how neurons communicate, and how drugs act in health and disease.

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MENINGITIS: 100 MAXIMS 1st EDITION, 1996. By Karen L. Roos. Published by Oxford University Press Canada. 208 pages. \$C50.50

This book is the fourth in the "100 Maxims in Neurology" series and, like its predecessors, attempts to fill a special niche

in neurology teaching. The aim of the series is, as series editor Orrin Devinsky puts it in the series' foreword, "to bridge the gap between the didactic presentation of information in a review article or text [and] the clinical wisdom and pearls presented on clinical rounds or a phone consultation with a colleague." In this latest volume of the series, Professor Roos has accomplished this admirably.

The book is arranged in twelve chapters beginning with a brief but engaging historical perspective and culminating in chapters on fungal, tuberculous, syphilitic and carcinomatous meningitis. The main body of the book (and the majority of the maxims) is, appropriately, focused on the various aspects of bacterial meningitis: pathophysiology, clinical presentation, CSF findings, etiologic organisms, treatment and prevention. The index is extensive and allows quick location of specific information.

Most of the maxims themselves, by their very nature, will be quite familiar to any practicing neurologist and therefore this book will be of interest primarily as a teaching tool rather than as a reference. The brief discussions that support the maxims are presented in a very readable and enjoyable fashion, and, for the most part, are informative and well-referenced, although it is somewhat disappointing that the sections on immunology and future treatment strategies contain relatively few post-1990 citations. Neurology trainees preparing for exams may find this book particularly useful, however with a cover price of more than \$50 for a book with such a narrow focus, it may have to rely on training programs and institutional libraries to reach this audience.

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CLINICAL CHILD NEUROPSYCHIATRY. 1995. By Christopher Gillberg. Published by Cambridge University Press. 366 pages. \$C104.00

Child psychiatry has numerous unhelpful traditions: The separation of organic and functional in psychiatry still informs child psychiatry to an extent where the physical examination of the child presenting with psychiatric symptoms is often totally neglected. The divide between what is perceived as clinical work and research affects child psychiatry powerfully. Reading of the erudite volumes by "experts", (usually researchers) appears unrewarding to the non academic clinician. Perhaps this is because the issues being researched do not readily lend themselves to practical application, or because the researchers seem out of touch with ordinary clinical child psychiatric problems. Professor Gillberg provides some remedies. This book is a powerful antidote to the inclination to conceptualize children's psychiatric problems in vague functional, social, or moral terms. It highlights the relevance of the medical perspective. The book gives convincing reasons for considering potential organic aetiology in child psychiatry. It succeeds in making the notion of discovering relevant aetiology challenging and exciting. Professor Gillberg writes with enthusiasm about his clinical practice and is very evidently mindful of practical clinical applications throughout his book. The book should appeal to those child psychiatrists already committed to a neuropsychiatric

approach by providing an excellent source of information and encouragement. It should also interest clinicians less orientated towards the neuropsychiatric approach by virtue of its "unstuffy" style and the fact that it does not presuppose a wealth of prior knowledge on the part of the reader.

Initially there is an overview of a range of conditions including Autism and Aspergers syndrome, Dyslexia, Tourette's Syndrome and DAMP (Deficits in Attention Motor control and Perception). A chapter on background factors includes interesting discussion of the concept of optimality in the pre and perinatal period and from a clinical viewpoint the chapter provides a most powerful argument for the importance of obtaining a full medical/family/developmental history in the clinical assessment of the child.

Numerous specific clinical disorders are dealt with in detail in part II including disorders of empathy (which Professor Gillberg suggests may be much more widespread than is currently accepted) and DAMP. Both receive very full consideration. There follow descriptions of a number of less common specific syndromes (Angleman, Cornelia de Lange, Duchenne's Muscular Dystrophy). Foetal Alcohol Syndrome and Fragile X are included, each with clear indications of appropriate diagnostic work up. The attention to diagnostic investigations throughout the book is very thorough. Though these may seem beyond the reach of ordinary clinical practice at times, clear indications are given of which investigations should receive priority. Chapters on psychotic disorders, sequelae of head injuries, epilepsy and other neurological disorders follow.

Part III, "Assessment" gives a comprehensive overview of assessment and laboratory investigations and includes a review of neuropsychological work up. Professor Gillberg offers sufficient detail and discussion in this section to enable the child psychiatrist to have a meaningful and creative discourse with the psychologist in the team (if there is one).

Part IV is about intervention in rather more summary form. A broad view is taken including psychoeducational approaches, support groups and psychopharmacology.

The strength of the book is in its clear and non-patronizing presentation of information including that which may appear rather basic but is not necessarily common knowledge; and in the enthusiastic encouragement of clinicians interested in understanding the medical and neuropsychiatric issues relevant to their patients problems. I found it a friendly book to read and thought it might even win over some trainee child psychiatrists presently disenchanted with medicine by its enthusiastic tone and reassuring practicality.

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MAGNETIC RESONANCE IMAGING OF THE BRAIN AND SPINE. 2nd EDITION. 1996. Edited by Scott W. Atlas. Published by Lippincott-Raven. 1675 pages. \$C319.00

This new version of an already highly regarded text in Magnetic Resonance Imaging reflects the rapid changes that have occurred in the last five years in the field. It has expanded, both in numbers of chapters (from 28 to 32), and pages (from 1121 text pages to 1653 text pages) from the first edition in