

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