

on prions and the other on cerebral amyloidosis; while well written, their references are for the most part anterior to 1992 and important new information such as the interaction between ApoE and amyloid is not included. It is important to note that the book is biased towards degenerative diseases and excludes other areas of human disease where molecular techniques have greatly enhanced our knowledge and are now assuming diagnostic importance such as brain tumours and mutations in myelin related genes. The concept of trinucleotide repeats is not discussed. None of the techniques related to protein alterations are presented (protein purification, gel electrophoresis Western blotting) leaving out the entire topic of cytoskeletal changes in human neurodegenerative diseases. Finally, the techniques related to cell death/apoptosis are covered. This book will be useful mainly to clinicians who wish to become familiar with the basic molecular techniques currently used, keeping in mind that the topics covered are quite selective. Those who are actually contemplating the possibility of setting up molecular techniques to study human brain diseases should refer to more detailed publications and "how to" books.

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BIOPSY DIAGNOSIS OF PERIPHERAL NEUROPATHY. 1995. By Gyl Midroni and Juan M. Bilbao. Published by Butterworth-Heinemann. 477 pages. \$C208.00

I quite enjoyed this new atlas of nerve biopsies by Midroni and Bilbao. There are a number of very positive features about this book that suggest it should be included in all neuropathology laboratories and in the libraries of neurologists interested in peripheral nerve disease. Unlike several books about peripheral nerve there are more photographs than words and the photographs are of superb quality. This is exactly what the field needs, i.e., a pictorial "tour de force" of nerve biopsies from a lab with a great deal of experience in the area. In my mind there aren't any texts quite like this. Its closest rivals are either largely text or particularly EM. The pages are large allowing the illustrations to be very well portrayed. An additional plus is also the inclusion of a segment with clinical information on each of the conditions presented. Many publications on peripheral nerve disease fail to include such nice combinations of semi-thin sections and EMs. I particularly enjoyed the sections on sarcoidosis, vasculitis and lymphomatoid granulomatosis. To visualize these conditions in the past it would require digging through reprints.

It is the bias of these authors that they do not emphasize teased nerve fibres, although there are some pictures in the text. I think these are well illustrated in other texts. As the field progresses, a text like this and others will probably include more immunohistochemistry but there is some in the text and frankly I really wouldn't want to displace the other pictures because it would distract from the comprehensiveness of what is included.

The authors present their viewpoints on usefulness of nerve biopsy and some interesting information to help guide clinicians as to when biopsy may or may not be as helpful. Of course, some of this is subjective and based on their particular experience but these are important questions that need to be addressed.

We have been waiting for a text like this for a while now,

expecting it to come from the authors of some other well known peripheral nerve books. I am pleased that this group, with its depth of experience has shared the images with us.

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NEUROBEHAVIORAL PLASTICITY. 1995. Edited by Norman E. Spear, Linda P. Spear, Michael L. Woodruff. Published by Lawrence Erlbaum Associates, Inc. 472 pages. \$C104.00.

This book consists of papers presented in honour of Robert L. Isaacson by his former students and collaborators in research at a symposium held in association with a 1993 meeting of the International Society for Neurobehavioral Science. The papers fall under three main headings, namely, the relationship between the limbic system and behaviour with an emphasis on learning and memory, the phenomenon of neuroplasticity controlled at a molecular level including changes after brain damage and, thirdly, the neural and chemical determinants of normal and abnormal behaviour. In the first part, the papers deal with the effect of hippocampal lesions on conditioning to complex non-spatial events, with a quantitative model for the assessment of processing of temporal and spatial information by the hippocampus and of the effect of lesions, the experimental effects of the injection of a cholinergic antagonist or a GABA-ergic agonist into the medial septal area on maze behaviour, an innovative technique for assessing memory after short retention intervals in rodents, a review of the research and conclusions of the neurophysiologic analysis of limbic function in the Buzsaki Laboratory, the consequences of lesions in the septal area and experiments on the relationship between neurotrophic factors in the hippocampus in rats and Alzheimer's disease.

The papers on plasticity in behaviour and the brain discuss the modulatory memory system as demonstrated by McGaugh's Laboratory and the central role of the amygdaloid complex, the evidence for varieties of synaptic change derived from experience, the application of neural grafts and other techniques as treatment of experimentally-induced brain damage, the puzzling effects of implanting fetal tissue into the damaged hippocampus of adult rats, the advances in understanding of neuroplasticity through the techniques of neurochemistry and molecular biology, experiments aimed at trophic factors that mediate neuronal plasticity and the role of hormones associated with stress as studied in the laboratory of Bela Bohus and their observations on kindling in the dorsal hippocampus and amygdala which result in measurable neurophysiologic and behavioural changes.

The third part contains papers which deal with an experimental rat model of fetal alcohol syndrome, a study of the age-dependent effects of early disruption of the dopamine system, a review of the issues and evidence with respect to the four major neural transmitter systems (adrenergic, serotonergic, dopaminergic and cholinergic) and their role in combination with the brainstem for cognition, the effect of neuropeptides on cognitive behaviour in rats and in humans, the phenomenon of reinforcement and the suggested interaction of the amygdaloid complex, the hippocampus and the ordering effect of the prefrontal cortex, the application of animal research to a greater understanding of Alzheimer's disease in which analogous perseverative