reference for graduate students and postdocs beginning a research career in this specific area, but feel it is probably too focused and unbalanced to be of general interest to senior scientists and clinicians.

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Alzheimer's Disease and Related Disorders Annual 2001. Edited by Serge Gauthier and Jeffrey Cummings. Published by Martin Dunitz. 216 pages. C$87.00 approx.

What is common to β-pleated sheets and PET therapy or to axial FLAIR and the neuropsychology of the capacity to consent? Well, it is all in a day for those specializing in dementia and for the editors of an annual collection of reviews and essays in this field. This is the second annual collection edited by Gauthier and Cummings (unfortunately, contents of the first annual collection are not listed) and is as eclectic as any deliberation in the field or indeed as in any field in medicine. The untoward deterioration of manifold higher brain functions with aging now has the attention of clinical professionals and researchers from a remarkably wide range of disciplines that reflect the complexity of both the etiology and pathogenesis and management. This management in wide measure needs to consider the social setting of the affected individual. Early chapters address etiology and pathogenesis and pharmacotherapy of particular interest to neurologists and neuropathologists; three chapters address depression, behavioural manifestations of interest to neuropsychiatrists and psychiatrists, and a final chapter addresses geriatricians and family physicians caring for patients in the later stages of debility. I first read chapter 3 by Scheltens on neuroimaging, hoping for clarification of the indications in diagnosis. Recent studies of mesial temporal atrophy, regional cortical atrophy and white matter change have given conflicting results that suggest that findings will mainly support what is clinically obvious. Although research studies superimposing MRI and PET or SPECT appear to give greater precision in detection of Alzheimer's disease, guidelines of the American Academy of Neurology recommend against use of metabolic imaging in daily practice. There is room for considerable skepticism about the value of imaging of conditions where multiple pathologic processes appear to intersect. One of these processes that I suspect enters discussion in the memory clinic infrequently, amyloid angiopathy, is thoughtfully reviewed by Vinters. We learn that the amyloid does not form in the vessels of the white matter although leukoencephalopathy is seen in some forms. We also learn that 5% of patients dying with Alzheimer's disease will be found to have cerebral hemorrhages.

The possibility that effective disease-modifying therapies are in sight is reflected in two chapters. The first by Cole provides a detailed discussion of mechanisms of amyloid formation and disposal and the second by Peterson reviews "mild cognitive impairment", the term used to include subjects exhibiting the earliest manifestations of Alzheimer's disease and most likely to benefit from these therapies. This latter syndrome is identified through clinical judgement and the development of a definition suitable for clinical studies will require some ingenuity. One of the editors, Gauthier, reviews studies of cholinergic agonists that have been overshadowed by the recent success with cholinesterase inhibitors. It is too early to abandon this approach to symptomatic therapy. The other editor, Cummings, contributes to one of three chapters updating well-trod approaches to diagnosis and therapy of depression and the psychosis and agitation in dementia. Correlation of behaviour with the anatomy of neurodegeneration in the different dementias provides insights of potential use in therapy. The penultimate chapter by Marson and Briggs provides an informative review of competency and its neuropsychologic assessment in dementia, citing their recent studies in this new field research. Volicer's chapter, perhaps unavoidably, last reviews issues in management arising in the late stages of dementia. Few patients die in a persistent vegetative state so that provision of meaningful activities and sensory stimulation is a requirement for most patients. Among medical, behavioural and caregiver issues, I found that his discussion of tube feeding very informative.

Professionals interested in dementia will find something of interest here in their own fields as well as enlightenment in the related disciplines. Unlike other annual collections of reviews, this one is well-indexed. I found some irritating redundancy in exposition, suggesting a need for greater use of the red pencil by senior authors and editors. Figures are well-reproduced (chapters 2 and 3), except that a blow up of medial temporal lobe images in chapter 3 would have been helpful.

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Basal Ganglia and Thalamus in Health and Movement Disorders. 2001. Edited by K. Kultas-Ilinsky, I.A. Ilinsky. Published by Kluwer Academic/Plenum Publishers, New York. 378 pages. C$142.50 approx.

This text is notable for the authors selected. There is a "who's who" of movement disorders beginning with Anne Young, Jack Penney and Mahlon DeLong and including the Toronto Western Hospital group (including Jonathan Dostrovsky, William Hutchison, Karen Davis and Andres Lozano). Do not be put off by the dry title. There is vertical integration from basic science to clinical application. For those who wondered how pallidotomy works in Parkinson's disease when the classic model of basal ganglia predicts chorea or excessive movement, the answers are approached in these chapters.

There is logical division of the formidable topic into Historical Perspectives, Anatomical and Functional Organization, Neurotransmitters, Receptors and their Role in Motor Behavior, Movement and Sleep Disorders, Plasticity in Movement Disorders, Neuronal Activity in Movement Disorders, Mechanisms and Efficiency of Novel Treatment for Movement Disorders. Each section is further divided into chapters that touch upon every aspect of basal ganglia and thalamic circuitry and their implications in movement disorders.

The chapter on microcircuits could benefit from more diagrams, the text itself being quite dense. Whereas, the chapter on local and efferent neurons has lavish histochemistry panels that add to its comprehension. The editors' chapter dealing with primate organization and connection of the motor thalamus is well-organized and well-written. The subject matter is key to understanding the organization of the basal ganglia and thalamus.

The sections on plasticity in movement disorders and neuronal activity in movement disorders deal with primate and human studies. These findings explain much of the paradox of the classic basal ganglia model. Finally, there is a brief transcript of discussions from the meeting on which this work is based.

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