In summary, Molecular Neurobiology of Pain is a readable and authoritative reference book describing the current state of knowledge in peripheral and central mechanisms of pain. This book will likely prove most useful to students of neurophysiology and to researchers involved in the neuropharmacology of analgesia. Clinicians wishing to whet their appetite for the neurophysiological basis of neuropathic pain, particularly in peripheral nerve disorders, may be surprised at the depth of neurobiological information currently available to account for some of the many clinical accompaniments of neuropathic pain.

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THE LIFESPAN DEVELOPMENT OF INDIVIDUALS. 1997. By David Magnusson. Published by Cambridge University Press. 526 pages. $C58.44

Dr. David Magnusson has edited a textbook concerning the development of the individual. He describes this process as a "complex, multi-determined and integrated process which takes place progressively from conception to death. In this process, biological, mental and behavioral factors are involved on the individual side and social and physical factors operate in the environments which the individual encounters and has to deal with." Dr. Magnusson provides the reader with specific viewpoints, written by numerous authors, covering areas such as areal specialization of the developing neocortex, genes and environment, psychobiological development, neurotransmitter receptors, learning, memory and synaptic plasticity, cognitive development, language acquisition and the role of gonadal hormones in brain organization and function. There are further chapters on biology and culture, social behavior development, as well as the psychological, genetic and molecular biologic aspects of aging.

These chapters are interesting but, unfortunately, the supposed goal of this book, i.e., "to integrate the findings from the specialized areas, presented in this volume, and elsewhere, in order to form a holistic perspective" simply does not happen. We are provided with a massive amount of information and are left panting for someone to put it together and guide us. Dr. Magnusson whets our appetite in his forward by indicating "what is needed is a general model of homo and society ... which would ... serve as a common general theoretical framework for planning, implementation and interpretation of studies on the specific issues that are related to various aspects . . . across the lifespan." This model however is "in press" and we are left to determine it on our own. The writers all participated in a symposium sponsored by the Swedish Nobel Foundation, entitled "The Lifespan Development of Individuals: A Synthesis of Biological and Psychosocial Perspectives", held in Stockholm, in June 1994. The editor indicates that manuscripts submitted prior to the symposium were subsequently revised by the authors, apparently to take into consideration "the comments made during the discussions". This is not greatly reflected in the text which I read.

The amount of information presented is tremendous, dealing with lifespan issues which, as indicated, range from molecular to genetic to social levels. There is no question that any individual who deals in some ways with human health issues will benefit from the information presented, but the diversity is also quite daunting.

Baltes' and Graf's chapter on Psychological Aspects of Aging: Facts and Frontiers speculates about general strategies of mastery that can describe the effective management of life in the face of age associated losses. One such strategy mentioned is "selective optimization with compensation". Good or successful aging is noted to be based on the interplay between the three components of selection, optimization and compensation. Rubenstein, the famous pianist who played into his 80s is noted to have reduced the scope of his repetoire by playing fewer pieces and practiced more than during his youth. Thirdly, he used a special strategy, such as slowing down his play prior to fast segments, thus creating the impression of faster tempo.

One must utilize selection in deciding which chapters to read in The Lifespan Development of Individuals. Its strength is its attempt to place in one text varying viewpoints from the social, psychological and biological worlds. Its deficits are, despite the editor's best intentions, that the topics still remain rather disjointed, not well sewn together by a common thread.

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PRINCIPLES OF MEDICAL PHARMACOLOGY. 1998. Edited by Harold Kalant, Walter H.E. Roschlau. Published by Oxford University Press. 957 pages. $C85.95 approx.

This is the sixth edition of this highly regarded textbook that though multi-authored maintains a remarkably consistent literary style throughout. This is likely due to good communication between the editors and authors, who are for the most part faculty members of the University of Toronto. The illustrations are well proportioned and uniformly styled with legible legends. Another pleasant feature is the liberal use of boldface blue type to highlight key words or phrases throughout the text. Short case histories provide a clinical rational for the subject matter of each chapter and generic names of drugs are supplemented by the most common proprietary names. There are approximately twelve suggested readings at the end of each chapter that can be used as a source for more detailed references. The index is 16 pages in length and allows quick location of specific information.

The text begins with a 130-page section entitled General Principals of Pharmacology. Along with traditional items there is an excellent new chapter on signal transduction and second messengers. Following this substantial introduction are nine special sections. The one entitled Central Nervous System consisting of eleven chapters (55 pages) will be of particular interest to readers of this Journal. The first and major chapter in this section is entirely new and is an overview of the functional organization of the central nervous system. A series of 14 simple diagrams display the interconnecting pathways of the major CNS neurotransmitters from spinal cord to cerebral cortex while tables list the various receptor subtypes, ligands and their biological effects. Ten chapters that follow link various classes of drugs to neurological disorders. The chapter on agents modifying movement control includes a good review of medications employed in Parkinsonís disease. Another chapter discusses the pathophysiology of epilepsy demonstrating how the classification of epilepsy serves as a guide to the selection of the most appropriate antiepileptic drug. The section on antipsychotics provides a clear account of the receptor subtype profile of both classical and the newer atypical antipsychotics. Neurologists and neurosurgeons will also find the chapters on the autonomic nervous system and neuromuscular junction and spasticity to be concise accounts of current knowledge with a discussion of the latest medications.