reader for the subsequent complex terrain. The book includes chapters which
catalogue topics such as efferent-afferent neuronal circuitry (M. Palkovitz and
L. Zaborszky), limbic and brainstem connections (J. Sutin and R. McBride), and
Golgi analysis of the major cell types in the hypothalamus (O. Millhouse). It includes
a phylogenetic description of the hypothalamic monoamine and acetylcholinesterase
systems (A. Parent) and a cytoarchitectonic atlas representing the rat hypothalamus
in the three cardinal planes (R. Bleir, P. Cohen, and I. Siggelkow). The atlas
regrettably does not include a calculated stereotaxic coordinate system, an omission
which detracts from its overall usefulness. Highlights are the historically indepth chapter on the development of the hypothalamus (A. Keyser) and a remarkably
detailed color and black and white angioarchitectonic pictorial analysis of the
rat hypothalamic blood supply (G. Ambach and M. Palkovitz). Glaringly absent
from this volume is an account of the “new wave” immunocytochemical anatomical
research which has played a major role in repopularizing the hypothalamus among
neuroscientists.

The major focus is on rodent anatomy, an understandable selection, as this has
been the principal laboratory animal of choice in most neuroanatomical investigations. Each chapter includes a plethora of drawings, photographs, tables and charts,
or diagrams. While this organization prevents the chapters from reading as smoothflowing treatises, it facilitates the search for even the most obscure bits of information. Indeed, almost any anatomical fact can be extracted from this book. As is the
case with most scientific books of this type, the references are two to three years out
of date. This, however, does not detract from the general usefulness of the volume.

The major drawback of this volume is the paucity of detailed written descriptions
and discussions in some of the chapters. I was left with the feeling of having traversed
well-mapped, complex geographical terrain without having gained an understanding
of what the hypothalamic experts feel the importance and meaning of the geography
is. Perhaps this is beyond the scope of such a book, whose editors have successfully
chosen an alternate route of documenting the anatomy of the hypothalamus in
extensive tabular, graphic, and pictorial fashion. This illustrated collection should be
a worthwhile addition for the personal library of the “hypothalamic neuroscientist,”
but may be too costly for those having only a casual interest.

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Pulmonary Vascular Diseases. Volume 14. Edited by Kenneth M. Moser. New
York, Marcel Dekker, Inc., 1979. 706 pp. $69.75.

Under the broad title “Lung Biology in Health and Disease,” Dr. Claude Lenfant,
Director of the Division of Lung Diseases, National Institutes of Health, Lung and
Blood, has initiated a series of multi-edited books which includes almost every
facet of lung structure, physiology, immunology, development, metabolism, et cetera.
The composite effort is by far the most comprehensive collection of information ever
assembled on the respiratory tract. The series is presently projected to contain 17
volumes, but the option to add more is open, according to Dr. Lenfant. The series has
been well accepted by the pulmonary and research community, and a standard of
high quality has been achieved. The present volume, number 14, Pulmonary Vascular
Diseases, edited by Dr. Kenneth Moser, appeared in late 1979.
Although the pulmonary vasculature is an integral part of the "lung," it has not been foremost in the interest of many pulmonary physicians and scientists until lately. Diseases such as pulmonary embolism and primary pulmonary hypertension or the effects of congenital heart disease on the pulmonary circulation usually have been managed by cardiologists rather than pulmonary physicians. Pulmonary research generally has focused on the air side of the lung with emphasis on mechanics and air exchange physiology, and scant attention was given to the other side of the alveoli—the vasculature—which was just a necessary conduit for oxygenated blood to enter the systemic circulation. Recent appreciation that the capillary circulation in the lung is an important blood filter, perhaps a rival of the spleen and the liver; an integral part of the lymphoreticular system; an endocrine organ, in effect; and the site of injury for such important diseases as the adult respiratory distress syndrome—has aroused interest in the pulmonary vasculature. Moreover, a variety of immunologic diseases which can affect the vessels, including sarcoidosis, collagen vasculature disorders, and pulmonary arteritis, remain important clinical problems and enigmatic with respect to pathogenesis. This volume, therefore, has an important function; that is, to examine all features of the pulmonary vascular bed, including the often overlooked bronchial circulation. As Dr. Moser writes in his Preface the "lesser circulation has grown up as an object of research interest. . . ." An impressive group of authors has contributed chapters to this book; their diverse backgrounds are evident and range from pathology to clinical pediatric cardiology. In fact, the book moves rapidly through many facets of the vascular system and may try to address too many topics. Such an example might be the juxtaposition of control of the normal pulmonary circulation and an assessment of diagnostic methods used in clinical medicine.

The first two chapters detail the normal anatomy of two circulations which supply the lungs—the pulmonary and the bronchial. These are excellent, and the copious use and quality of many photomicrographs and illustrations add greatly to that quality. Information about the bronchial arterial circulation (Chapter 2, L. Cudkowicz) is helpful and a nice balance between historical and current perspectives is achieved. A chapter by Dr. Bergofsky on "Active control of the normal pulmonary circulation" is most timely and important. His discussion of humoral agents, such as angiotensin, kallikreins, and prostaglandins, and of drugs including catecholamines, histamine, and serotonin, which affect vasoactivity in the pulmonary circulation, points to an area of increasing research interest. Such factors which alter vascular tone and permeability of the blood-air barrier are likely to be important in the pathogenesis and treatment of various non-cardiac capillary leak syndromes, of which ARDS is the most familiar example. Dr. Lewis Dexter has been an innovative contributor to the circulation literature for many years, and his perspective, plus his inclusion of considerable patient data, has resulted in a critical and well done chapter on "pulmonary vascular disease in acquired heart disease." This contrasts nicely with several chapters about congenital diseases and the pulmonary vasculature. The review of primary pulmonary hypertension (Drs. Voelket and Reeves) is thorough and critical; on balance, much still needs to be learned about this important disease. One of the criteria listed to establish with certainty the diagnosis of primary pulmonary hypertension was the "absence at autopsy of other etiologies . . ." (p. 574). This indicated the difficulty in diagnosis and lack of therapeutic success generally encountered with these patients.

In summary, this volume is rather inclusive and is much more clinical than others which have appeared in the series (with the exception of volume 9, Chronic
Obstructive Pulmonary Disease, edited by Dr. T. Petty). The topic of the lung vasculature is emerging rapidly and will be an important area of lung research in the next few years.

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MOLECULAR NEUROBIOLOGY. By Gordon Guroff. New York, Marcel Dekker, Inc., 1980. 571 pp. $53.50.

Gordon Guroff has attempted in this volume to provide an outline of neurochemistry "designed to progress from structure through chemistry to function" and, indeed, to pathology as well. Any criticism of the book must keep in mind the sheer enormity of the task that Dr. Guroff chose to undertake.

The present volume is most useful and readable in the areas of amino acid metabolism in brain, its differences from other tissues, and in the pathology produced by discrete biochemical lesions in many of the pathways. These are areas in which the author has made important original contributions and where the incorporation in the text of clinical "case histories" is most successful. Unfortunately, many topics are shortchanged; for example, all of synaptic neurobiology, from membrane potential through a catalogue of neurotransmitters, is given no more than 25 pages. Other important areas, such as bioenergetics, fare even worse.

The book seems to have suffered from publishing delays, and carelessness. Few developments beyond 1976 are mentioned, and the handful of 1977 references are mostly from the Bethesda campus. This is most regrettable, and leads to startling statements such as "there are no serotonergic neurons known outside the brain" (p. 196). A careful editor would have also corrected the contradiction on the distribution of CAT on p. 421. One can only hope that a second, more carefully prepared edition would better do justice to Dr. Guroff's gargantuan undertaking.

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ETHICAL ISSUES IN MENTAL RETARDATION. TRAGIC CHOICES/LIVING HOPE. By David F. and Victoria S. Allen. Nashville, Tennessee, Abingdon, 1979. 172 pp. $5.95. Paperbound.

In recent years the public has shown an increasing willingness to integrate the physically handicapped into the mainstream of society. In contrast, attempts to integrate the mentally handicapped (both mentally retarded and psychiatrically ill individuals) have often been met by community opposition. The Allens' discussion of the ethical issues concerning the mentally retarded demonstrates the community's ethical obligation to help the mentally handicapped lead a "normal" deinstitutionalized life.

In a free-flowing, cogently written manner, the book deals with such ethical issues as selective abortion, confidentiality, euthanasia, the dangers of labelling and behavior modification. Poignant vignettes illustrate major points and heighten the reader's interest. Despite the Allens' sermonesque style and lack of philosophical sophistication, their arguments are sound and appeal to the reader's intuitive sense of justice and responsibility. The book reads like a sermon by a preacher determined to