

processes, which do not occur in normal bone. These are not original determinants of bone disease but are secondary expressions of cellular and metabolic functions. These functions are affected at equal rates in all areas of bone. Unusually low blood supply, tissue pressures, and ill-defined factors modify the rates of various cellular functions in various areas. In the study of these diseases, one can presume a genetically-determined defect in metabolism is present and that the expression of this defect varies only under certain conditions of activity and nutrition and hence only at particular sites and times in bone development. The sites and times determining the morphological lesions of a particular disease. Dr. Rubin is very much aware that the limitations of his classification indicate our ignorance and presents his book with an unambiguous and more intense attack on these diseases from the biochemical quarter.

One can easily quarrel with a few details in his use of his classification. Why should osteophosphatasia, a metabolic defect present throughout the body even if observed clinically only in bone, be classified as an "intrinsic defect" or "dysplasia," while osteoporosis, with a metabolic defect obviously present throughout the body affecting bone and affecting bone form, is classified as a "dystrophy" or metabolic disorder "intrinsic" to bone? And isn't "osteogenesis imperfecta" in Siamese cats primarily a calcium deficiency osteoporosis? The text is turgid and wordy in places, but due to the clarity of Dr. Rubin's schematic excellence of his illustrations, and the thoroughness of his review of the clinical literature, his book is an important and valuable monograph, and it should come to the attention of orthopedists, pediatricians, radiologists, pathologists, and even the internist with a special interest in bones.

EDWARD J. HUTH

Radioisotopes and Radiation: Recent Advances in Medicine, Agriculture, and Industry. By JOHN H. LAWRENCE, M.D., BERNARD ANOWITZ, and BENJAMIN S. LOEB, PH.D. 394 pages. McGraw-Hill, New York, 1964. Price, \$3.00.

THE ANNOUNCEMENT OF THE publisher states that "Radioisotopes and Radiation is one of our volumes in the U. S. Atomic Energy Commission's presentation package for the 1964 Geneva Conference on Peaceful Uses of Atomic Energy. It highlights recent

progress in using radioisotopes and radiation for practical purposes (as opposed to their use as a tool in basic research). The authors are highly selective in their coverage, giving examples of applications in medical diagnosis, medical therapy, agriculture, industry, and other fields. This approach permits more penetrating discussion than in the more usual general survey. The book is artistically designed and contains numerous illustrations."

There is very little more that a reviewer can say. As a part of a presentation package, this book appears to fulfill its purpose of indicating main lines of development of applications of radioisotopes and radiation since the 1958 Geneva Conference on Peaceful Uses of Atomic Energy. It should be of much more interest to the general reader than to the physician, and in fact it was written with the layman in mind. Although a great many topics are mentioned the coverage is uniformly superficial and journalistic. The tone is reminiscent of the periodic reports of the Atomic Energy Commission. Lacking an index and references to scientific literature it is of little value to anyone who is seriously interested in learning more about a particular subject. The text is uneven suggesting that many hands participated in its preparation. In some cases the scientist responsible for the work on a specific application is named (last name only) and his affiliation may be mentioned; in other cases only the institution is cited. There are, then, some clues to the serious student.

This reviewer is fascinated by the price tag: \$3.00, and by the fact that the copyright has been assigned to the General Manager of the U. S. Atomic Energy Commission. It is surprising that there are pictures on nearly every page as well as one colored print as a frontispiece, but neither the contents nor the appearance of the book seem worth that much.

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Brain Function: Cortical Excitability and Steady Potentials: Relation of Basic Research to Space Biology. Edited by MARY A. BRAZIER. 394 pages. University of California Press, Berkeley, 1963. Price, \$10.00.

THIS EDITED TRANSCRIPT PRESENTS the proceedings of a conference held at the Brain Research Institute, University of California, Los Angeles, in 1961, a conference mainly concerned with changes in the steady potential of the cortex as a sign of cortical excitability. It has been known for many years that there is a potential difference between the cerebral

cortex and indifferent structures. This steady potential is influenced by wakefulness, anesthesia, and various stimuli.

Reviews and new work are presented on the influence of epileptic lesions, learning (measured by conditioned reflex responses), ionic shifts in the cortex on this steady potential. Comments are made on the technics of measuring the steady potential (as in electroencephalography) in astronauts. Ultrastructure of the synapse, part of the morphologic substrate for the electrical effects, is described. There are nice discussions on the difference in the electroencephalograms between animals deprived of various sensory stimuli (as visual and auditory) and normal animals, the relationship of these to certain problems encountered in space travel, and on the neuropathologic changes observed in animals on exposure to cosmic rays in the stratosphere and to cyclotron-accelerated particles.

A considerable portion of the book is discussion; however, the whole hangs together very well, a result of excellent participants, leadership, and editing. While much of the material reported is highly technical, considerable amount would be highly interesting and informative to the nonspecialist.

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Positive Disintegration. By KAZIMIERZ DABROWSKI, M.D. 132 pages. Little, Brown and Co., Boston, 1964. Price, \$4.50.

KAZIMIERZ DABROWSKI IS A DIRECTOR of the Institute of Children's Psychiatry and Mental Hygiene of the Polish Academy of Science (except for the period of German occupation), and has served in this capacity since 1935. Dabrowski's theory of personality has its roots in concepts of evolutionary development, hierarchical levels, and dissolution of the central nervous system elaborated by Hughlings Jackson, the English neurologist.

In his monograph, Dr. Dabrowski stresses the positive and constructive function of conflict, anxiety, and psychopathological symptoms in his theory of positive disintegration. Disintegration is defined as disharmony within the individual and in his adaptation to his environment, with symptoms of anxiety, neurosis, and psychosis. Personality is regarded as developing through dissatisfaction with and fragmentation of the existing psychic structure—a period of disequilibrium or disintegration—followed by a secondary equilibrium of a higher level.

Dabrowski feels that no growth occurs without previous disintegration; in other words, personality growth depends on favorably adaptive responses to conflict and stress.

This little book of nine brief essays discusses in addition to personality development the dynamics of multilevel disintegration, discontent with "self," character types, psychopathy and neuropathy, child development, and mental health. Personality patterns are identified as primitive integration types, positive disintegration types, chronic disintegration types, and pathological disintegration types.

Dabrowski uses an unfamiliar and loosely defined vocabulary in his approach to personality theory, an initially serious handicap to the reader more familiar with psychoanalytic concepts. The described phenomena can be depicted in other terms. Some of Dabrowski's ideas are intriguing enough, however, to suggest that they may be capable of eventual effective clinical use.

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Congenital Malformations. Papers and Discussions Presented at the Second International Conference on Congenital Malformations, New York City, July 14, 1963. Edited by MORRIS FISHBEIN, M.D. 442 pages. The International Medical Congress, Ltd., New York City, 1964. Price, none given.

WHILE THE MEDICAL PROFESSION lacks a standard text in human or medical genetics, proceedings of congresses and symposia are still good reading for staying abreast of the field. The topics presented in this volume from The Second International Conference on Congenital Malformations are drawn from many fields of interest in genetics, including cytogenetics, cell genetics, genetic variations in proteins, gene action in differentiation and development, developmental mechanisms, extrinsic factors in malformations, and epidemiologic studies. A final session in the conference presented the management of the patient with congenital defects including genetic counseling. Each section in the text is followed by a discussion that highlights areas of agreement and dissent.

Dr. Bentley Glass has masterfully summarized the first seven sessions, including cogent comments for those of us with severe degrees of myopia, hyperopia, or astigmatism. All of the participants and the panelists are acknowledged leaders in their field. However, the nature of such compendia do not allow uniform excel-

lence of content. Most of the presentations are lucid with good illustrations and good bibliographic documentation even though several of the papers are foreshortened to the point that they might better have been omitted. Though the information is now well over a year old in this rapidly changing field, I believe the book would prove useful to the general practicing physician, more for information than for advice on therapy.

A. DONALD MERRILL
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Chemistry and Prevention of Congenital Anomalies. By HIDEO NISHIMURA, M.D. MED. SCI. (JAPAN). 119 pages. Charles C. Thomas, Springfield, Ill., 1964. Price, none given.

SERVING AS AN EXCELLENT introduction to the subject, this book not only reviews important developments in teratology but also includes important contributions apparently previously unpublished. Six chapters discuss in detail congenital abnormalities, environmental factors as metabolic inhibitors in teratogenesis in man, nongenetic maternal causes associated with human anomalies, and the prevention of congenital anomalies.

This clearly written book is strongly recommended not only to those with clinical research interest in teratology but to those involved in clinical and research practice in the care of all pregnant and potentially pregnant women. Since the potentially pregnant women represent almost all who are in the bearing period, this book should be of particular interest to internists, obstetricians, gynecologists, and general practitioners.

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Animal and Clinical Pharmacologic Techniques in Drug Evaluation. By J. H. NODINE and PETER E. SIEGLER. 660 pages. Book Medical Publishers, Inc., Chicago, 1964. Price, \$18.00.

CLINICAL PHARMACOLOGY HAS experienced an impressive growth during the past decade and is now ready to detach itself from its parent discipline as an independent scientific endeavor. The need for more drugs and the real opportunities offered by basic research are, however, not always met by a sufficient number of competent investigators. The evaluation of drugs may be in the hands of physicians with inadequate basic training, who generally

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