

CANCER RELATED ANTIGENS. Edited by P. Franchimont. New York, Elsevier, 1976. 266 pp, illustrated, \$25.75.

This text is the complete proceedings of the European Economic Communities Symposium, "Cancer Related Antigens" held at Liege, Belgium on May 3-4, 1976. Almost all of the participants are from Europe; none are from the United States. The book has ample, good quality illustrations, a subject index, a bibliography at the end of each proceeding, and a list of all participants with addresses.

The book is divided into four sections: (1) Heterogeneity and Specificity of Embryonic Markers, (2) Casein: Extraction, Characterization, and Clinical Applications, (3) Identification and Clinical Usefulness of New Antigens such as Isoenzymes or compounds isolated from cell membranes, and (4) Results of simultaneous assays of several tumor markers in the early detection, diagnosis, and therapeutic follow-up of cancer.

The proceedings provide a thorough discussion of the several categories of cancer related antigens. The proceedings which discuss laboratory techniques describe the sophisticated methods used to isolate and characterize cancer related antigens. These presentations are aimed mainly at the researcher who has access to these specialized research tools. The proceedings which discuss the clinical uses of cancer related antigens are of interest to anyone in the medical field who is involved in the care and management of cancer patients. These papers reveal how different antigens used singly or in combination can assist the clinician in detecting cancer at an early stage, to determine if metastases are present, and to follow the effects of different therapies on cancer management.

Cancer Related Antigens is aimed mainly at the cancer researcher and practicing oncologist. Physicians specializing in nuclear medicine, however, should be very interested in this text because tagging of these antigens with various nuclides could result in the development of new imaging agents. These imaging agents could be used: (A) to screen patients suspected of harboring a malignancy, (B) to detect metastases which are suspected by elevated levels of antigen, but which cannot be seen by other imaging modalities, and (C) to follow the effects of therapy in the management of a cancer patient.

LARRY D. GREENFIELD, M.D.
City of Hope National Medical Center
Duarte, California

RADIOPHARMACEUTICAL DOSIMETRY SYMPOSIUM. Edited by R. J. Cloutier, J. L. Coffey, W. S. Snyder, and E. E. Watson. HEW Publication (FDA) 76-8044, 1976. 518 pp, \$6.20.

This volume contains the proceedings of an international forum held at Oak Ridge in April, 1976, for discussion of current views on radiopharmaceutical selection, biologic distribution and retention, and the physics and mathematics

of dose calculations. The 43 presentations in the volume are quite variable in the level of presentation and complexity. A variety of subjects are covered from the basic concepts of internal dose calculation to complicated kinetics and computer applications. Evidently, the editors worked very diligently to make the publication available as soon as possible. In spite of this, the volume is relatively free of distracting errors in production. This commendable effort to publish these proceedings quickly has, however, resulted in a problem. The papers are grouped according to the day of presentation (perhaps this is logical for a proceedings) but headings such as "Wednesday morning session" are not as helpful as would be rearranging the order and subdividing them according to topic (methods of calculation of radiation dose, acquisition and use of biologic data, computer programs for dose calculation, etc.). This arrangement makes it quite difficult to locate information on a specific item of interest which is further compounded by the lack of even a rudimentary index.

In the abstract of the book the editors state: "An important goal is to provide a reference volume that will serve as a resource for nuclear medicine practitioners and clinical investigators." There is much useful material in this reference volume, and it is a bargain. It is particularly recommended to clinical investigators and scientists working in the field of internal dosimetry, but its utility for clinical practitioners is diminished by the lack of organization and the quantity of very technical information.

RICHARD L. WITCOFSKI, Ph.D.
Bowman Gray School of Medicine
Winston-Salem, North Carolina

FINANCIAL OPERATION AND MANAGEMENT CONCEPTS IN NUCLEAR MEDICINE. J. L. Bennington, H. Handmaker, and G. S. Freedman. Baltimore, University Park Press, 1977. 232 pp, \$16.50.

This book of 19 chapters is based on a symposium with the same name, held in New York City on October 9-11, 1975. Many topics are discussed, including economics (cost analysis), accounting (budgeting), space design (facilities planning), organization (central radiopharmacy), legal matters (professional liability), politics (influence of governmental agencies), and philosophy (value measurements of procedures). There are 17 authors from the disciplines of nuclear medicine, radiology, business administration, business, and the law.

Individual chapters will be of interest to many physicians and administrators but the cost/benefit ratio of the entire book will probably be low for most nuclear medicine physicians. Readers interested in efficacy studies will find the chapters on value measurements and social economic factors of interest; those interested in management will find the chapters on cost concepts and cost analysis, break-even analysis, and budgeting of value; administrative physicians

will find the chapters on equipment purchase and facilities planning useful; and those interested in bureaucracy will find the chapters on government agencies and regulation of radioactive drugs complex. The text is limited by a lack of unity and organization that usually results in a symposium being reproduced as a book. The volume should be available in university and larger department libraries.

RONALD G. EVENS, M.D.
Mallinckrodt Institute of Radiology
St. Louis, Missouri

INTRODUCTORY PHYSICS OF NUCLEAR MEDICINE. R. Chandra. New York, Lea and Febiger, 1976. 186 pp, \$12.00.

This text is primarily addressed to nuclear medicine residents and nuclear medicine technologists. As stated in the preface, the elementary concepts of general physics are assumed, and this book is intended to provide only the minimum physics basic to nuclear medicine. It should be understood that the material presented in this text is an introduction only and not for use as a reference source.

The initial chapters cover a basic review of the atom and radioactive processes followed by the production of radionuclides and radiopharmaceuticals. The interactions of radiation with matter are covered in some detail, and this section includes dosimetry and detection of radiation, both *in vitro* and *in vivo*. A chapter on nuclear medicine equipment is included with a discussion of contrast, resolution, and sensitivity of these instruments. Last, some of the biologic effects of radiation are covered, along with therapeutic uses and safe handling of radioactive sources.

The material is presented in a simple manner, but in some areas this simplicity can be somewhat misleading. The author does provide references at the end of the text so that the interested reader may find more information on a given topic. The illustrations are adequate, though many are amateurish.

This book fills a long standing need for a basic introduction to the physics necessary for the understanding of nuclear medicine.

RODNEY WILLIAMS, M.A.
Bowman-Gray School of Medicine
Winston-Salem, North Carolina

METABOLIC DISORDERS OF BONE. C. R. Paterson. Dundee, Scotland, Blackwell Scientific Publications, 1974, 373 pp. \$33.00.

This work is a text book, a reference book, and a readable book. Alone, this unusual combination of features commends the book. In 284 pages Dr. Paterson gives a lucid and well-illustrated account of metabolic disorders of bone. About 1500 references are cited and appropriate review articles are highlighted in the text. The reader finds himself stimulated to probe the cardinal papers for himself.

It is perhaps not surprising that many references and a fair number of the figures are taken from Fourman and Royer's classic book. In several ways this book resembles Fourman's but is easier to read. The many references are woven into the text in such a way that the sentences do not seem disjointed; and in a review of those references you discover that the parathyroid glands were first described in the Indian Rhinoceros, that nineteenth century animals in London Zoo had rickets, and that normal urine will delay the setting of cement.

This is essentially a practical book. It gives the distinct impression that the author's experience has caused him to form certain strong opinions about his subject; thus, "The only feature typical of hyperparathyroidism is the fact that it is so frequently atypical" or "the patient in whom a diagnosis is made probably owes a greater debt to the clinician who first suspects a disorder of calcium metabolism than to the specialist who confirms it" or again "the larger the pile of films of negative intravenous and retrograde pyelograms a patient has, the lower is the probability that the symptoms are due to stones." While one may be piqued by these generalizations, one cannot but be refreshed by an author who jolts you from your own entrenched position.

A few printing errors are dotted through the text. A couple of statements on the autonomy of the parathyroid seem contradictory, and it is not strictly true to say that the x-ray image of the soft tissues of the hand can be eliminated by immersing the part in water. Notwithstanding these minor points, *Metabolic Disorders of Bone* is a book from which any one interested in the skeleton will benefit and derive pleasure.

E. S. GARNETT
McMaster University Medical Centre
Hamilton, Ontario

BOOKS RECEIVED

The receipt of the following books is acknowledged:

Atlas of the Human Brain and the Orbit for Computed Tomography. Joseph Hanaway, William R. Scott, and Charles M. Strother. 75 pp, illustrated. St. Louis, Warren H. Green, Inc., 1977. \$22.50.

Xeroradiography: Uncalcified Breast Masses. John N. Wolfe, 187 pp, illustrated. Springfield, Ill., Charles C. Thomas, 1977. \$28.00.

Diagnosis and Treatment of Incorporated Radionuclides. Proceedings of a Seminar, Vienna, Dec. 8-12, 1975. 625 pp, illustrated. Vienna, IAEA, 1976. \$39.00.

Directory of High-Energy Radiotherapy Centres, 1976 ed. 260 pp. Vienna, IAEA, 1976. \$15.00.

Modification of Radiosensitivity of Biological Systems. Proceedings of an Advisory Group Meeting, Vienna, Dec. 8-11, 1975. 216 pp. Vienna, IAEA, 1976. \$14.00.

Tumour Localization with Radioactive Agents. Proceedings of an Advisory Group Meeting, Vienna, 139 pp, illustrated. Vienna, IAEA. 1976. \$10.00.