

In spite of the above criticisms, this book is a very readable and practical introduction to the subject of body CT scanning. It will not appeal to those who already have read some of the comprehensive texts on the subject, and it is definitely not a replacement for texts of CT anatomy and pathology. Nevertheless, for those new to the science or who have a limited understanding of CT scanning, this handbook is an excellent means of gaining information about this imaging modality. It is well worth the modest price.

DARYL A. ADAMSON  
Oregon Health Sciences University  
Portland, Oregon

**RADIATION-INDUCED CHROMOSOME DAMAGE IN MAN.** T. Ishihara, M. S. Sasaki, Eds. New York, Alan R. Liss, Inc., 1984, 650 pp, \$98.00

Ionizing radiation is well known as a potent inducer of chromosomal damage in mammalian cells. Indeed, many of the early studies of the cellular effects of radiation focused on the structural changes produced in chromosomes. Such damage has been closely related to the cytotoxic effects of radiation, and increasing attention is now being paid to the role of chromosome rearrangements in gene mutations and in the process of malignant transformation of mammalian cells. The present volume represents a comprehensive review of current knowledge concerning radiation-induced chromosomal aberrations in mammalian cells. Its 28 chapters offer a balanced view of mechanistic studies, assay techniques, and studies of induced aberrations in human populations. They include contributions by a number of the world's leading experts in the field.

The book is divided into six sections on the origin and nature of

radiation-induced chromosomal aberrations, chemical and biological modifications, chromosome damage in relation to other biological consequences, chromosomal aberrations in germ-line cells and in human populations exposed to radiation, and finally a section on the study of aberrations in risk assessment. Several chapters focus on the role of DNA damage and repair in the production of chromosomal abnormalities, and there is an interesting chapter that examines the relationship between specific chromosomal aberrations and radiation-induced mutations. Another particularly useful and well-written chapter reviews current knowledge concerning the radiosensitivity of cells from cancer-prone individuals, and the possible role of hypersensitivity to DNA-damaging agents in genetic predisposition to neoplasia. The six chapters summarizing our knowledge of chromosome aberrations in radiation-exposed human populations include the study of atom bomb survivors, of patients treated for ankylosing spondylitis, and of individuals exposed through their occupations, as well as an interesting chapter reviewing the studies of populations from areas with elevated natural background radiation.

The various chapters in this book are generally well written, with the obvious goal of reviewing the available data in the subject area rather than covering the personal research of the authors. As a result, there are comprehensive bibliographies, and this volume should thus prove to be a valuable reference text on the chromosomal effects of radiation from environmental, medical, or accidental exposures. It also serves as a valuable source of information concerning current knowledge of the nature and biological consequences of radiation damage to human chromosomes.

JOHN B. LITTLE  
Harvard School of Public Health  
Boston, Massachusetts

### BOOKS RECEIVED

*Radiation Protection Procedures in the Use of  $^{99}\text{Tc}^m$ .* M.D. Short, J.H. Todd, P.J. Mulvey, N.W. Ramsey. London, The Hospital Physicists' Association, 1984, 16 pp, £2.50

*Christensen's Introduction to the Physics of Diagnostic Radiology.* Third Edition, T.S. Curry, III, J.E. Dowdey, R.C. Murry, Jr., Philadelphia, Lea & Febiger, 1984, 515 pp, \$30.00

*Fundamentals of Nuclear Medicine.* N.P. Alazraki, F.S. Mishkin, Eds. New York, The Society of Nuclear Medicine, 1984, 191 pp, \$12.00

*Biological Effects of Ultrasound: Mechanisms and Clinical Implications.* National Council on Radiation Protection, Bethesda, MD, National Council on Radiation Protection, 1984, 266 pp, \$15.00

*Atlas of Sectional Anatomy: Head, Neck, Trunk.* Philomena McGrath and Peter Mills, Basel, Karger, 1984, 238 pp, \$49.25