

Book Reviews

Cancer in Pregnancy. Larry McGowan. I. Newton Kugelmass (ed.). Springfield, Illinois: Charles C Thomas, 1967. 142 pp. \$7.50.

Cancer in pregnancy is one of the most tragic problems a man can encounter in medicine. The patient is youthful, and the time ought to be one of joy and hope. Her husband and her family are overwhelmed with fear. And over a little child a shadow of fate that all our sensibilities tell us should not fall until the afternoon and evening of life has come already at its dawning.

The weights of all these troubles come down on the physician not only as a man of medicine but as a man of his people as well. Certainly the decision for abortion has often been urged with the unexpressed thought that the child's sad future and the suffering of a young father faced with the constant reminder of the loss of his wife and the innumerable problems of providing for an infant in a motherless home are past bearing. These problems, rather than special pathophysiological complexities, constitute the problem of cancer in pregnancy.

In modern times, whatever surgery is advisable for the nonpregnant woman is manageable for the pregnant. Radiotherapy not directly focused on the uterus itself does no harm. Chemotherapy begun after organogenesis is complete has not interfered with intrauterine development sufficiently to prevent the delivery of children normal by all available standards of clinical and laboratory examination.

Dr. McGowan has drawn together a series of short chapters about cancer of the various organ systems complicated by pregnancy. His focus is on the newly discovered, surgically or radiotherapeutically treatable, primary neoplasm appearing in the pregnant woman. The manner of presentation is discursive prose. Tables and graphs are not used. The information is drawn from reviews of the literature. The citations are not intended to be comprehensive. They are not critically evaluated. This leaves open the question whether the literature reviews upon which the author based his chapters are representative. Since he has not related his conclusions from the literature to an extensive and well-analyzed personal or institutional experience, nothing new is added either in terms of data or interpretive judgment.

As a ready reference guide into the clinical literature of the subject, the book may be of use to obstetricians and surgeons and for hospital libraries.

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Specific Tumor Antigens. UICC Monograph Series, Vol. 2. A symposium organized by the International Union Against Cancer and the U.S.S.R. Academy of Medical Sciences. R. J.

C. Harris (ed.). Flushing, New York: Medical Examination Publishing Company, Inc., 1967. 366 pp. \$22.

This volume is a record of the symposium which was held in Sukhumi, U.S.S.R., in May 1965. It brings together a good cross section of what is known about antigens which are present in various tumors and the specificity of the antibodies produced against them. Antigenic analyses of tumor substances are described and discussed for various types of malignancies. Papers are presented dealing with antigens from chemically induced and viral-induced tumors and with the appearance of embryonic components in the tumors. The discussions following the presentations have been well worked out and are enlightening. The question of the meaning of tumor specificity is discussed frequently. The papers represent a true international view of the type of work going on in all parts of the world and are of particular interest as a survey of the work going on in the eastern part of Europe.

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Methods in Cancer Research. Vol. 3. Harris Busch (ed.). New York: Academic Press, 1967. 755 pp. \$33.

Since cancer research encompasses a wide variety of disciplines, it is the beneficiary of methodology from many other areas of research. Even a biochemist interested in mechanisms of drug action for studies on cancer chemotherapy has difficulty keeping abreast of the rapidly developing methods available in molecular biology. This third volume of *Methods in Cancer Research* deals with the methods available from molecular biology. Chapters are included on the nucleic acids and nucleoproteins, their isolation and fractionation, and on enzymes concerned in their synthesis or degradation. In many instances there is sufficient detail to permit direct use of the methods. Good coverage of the original literature is provided, and critical comments are included concerning alternative methods. A section on sources of antitumor agents includes a chapter on the design and synthesis of anticancer drugs and one on natural products. The former paints a somewhat pessimistic picture.

This volume contains the type of material that would lead many investigators to want it for personal use, but its price would probably limit it to availability in libraries.

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Macromolecular Synthesis and Growth. Ronald A. Malt (ed.). Boston: Little, Brown and Company, 1967. 251 pp. \$10.

A series of seven superb brief accounts of progress in some of the major areas of molecular and cell biology appeared in the *New England Journal of Medicine* in 1967. These have

now been assembled and presented in book form, with editing and an introductory chapter by Ronald Malt. Dr. Malt's introduction offers a brief consideration of nucleic acid structure and some of the technics used in the field, such as cell fractionation and density gradient centrifugation. His selection of Ptashne's work on the lambda-phage repressor as an illustration of the power of these technics sets the pace for the up-to-date treatment in the chapters to follow. Jonathan Warner and Ruy Soeiro have written two excellent chapters called "The Organization and Function of Cellular RNA" and "The Direction of Protein Synthesis by RNA." The following chapters by Gerald Medoff and Morton Swartz, "Structure of DNA" and "Enzymatic Synthesis of DNA," are presented in terms lucid for the biochemist, but portions may be difficult for a clinician. Sheldon Penman's accounts of "RNA Metabolism in Mammalian Cells" offers a contemporary summary of events in the processing of ribosomal RNA's and rightly emphasizes the new and unsolved problems, such as the function of the large polydisperse RNA of the nucleus and the role of 5 S RNA in ribosome structure. "Animal Virus Replication" by Donald Summers is a clear, incisive account of the methods and results of molecular virology. The final chapter, "RNA Metabolism in Embryogenesis" by Paul Gross, offers a superb introduction to problems of genetic control during differentiation and development.

Though there is some duplication of subject matter, the book is highly readable and makes a fine impression. It certainly succeeds in its attempt to present molecular biology to interested physicians, clinicians, and medical students and warrants a much wider audience.

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Proceedings of the Fifth Berkeley Symposium on Mathematical Statistics and Probability. Vol. 4: Biology and Problems of Health. Lucien M. Le Cam and Jerzy Neyman (eds.). Berkeley: University of California Press, 1967. 934 pp. \$28.50.

The increasing use of mathematical languages and electronic computers in biomedical research is a matter of some interest—and perhaps of some concern—to investigators in the cancer research area. For those who are not familiar with this area but who would like to get some picture of what is going on, there is at present no readable introductory text. However, a judicious selection of about a dozen of the 56 articles in this massive 934-page symposium volume will give a fair idea of the worthwhile work in the area. Some of the articles (e.g., by Armitage and by Schneiderman) can be read by nonmathematicians, while others (e.g., by Neyman *et al.*) are informative even if the mathematical details are skipped over. For readers who might like to scan this material, I would recommend the articles which start on the following pages: 115, 147, 229, 349, 367, 511, 549, 657, 707, 745, 777, 791, 813, 855, 867.

Most of the above articles show how mathematical languages can be used to some advantage in a biomedical problem; many of the remaining articles show that mathematical languages are not an unmixed blessing. Unless mathematical language is firmly anchored in experimental realities, the results tend to be somewhat sterile—as in the articles on abstract epidemic theory. Worse yet, there are more than a dozen articles in this volume which are not only devoid of scientific value but proceed to make sweeping claims that are mythical, misleading, or outright false. A horrible example is an article by Bellman on "intelligent machines." He writes down a dozen abstract equations, and *ergo* "machines think." This is mathematical pseudoscience. It is usually not difficult to distinguish genuine science from pseudoscience in this area. Merely ask: Is the computer used in order to *say* something or in order to *do* something? In genuine research, *human* investigators use computers as a tool to avoid burdensome chores in carrying out arithmetic operations on actual data. In pseudoscience, computers "think" and "do" research. Publication of pseudoscience alongside genuine biomedical research confers respectability on pseudoscience and does a serious disservice to the health sciences.

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Cancer Chemotherapy. Medical Outline Series. Edward S. Greenwald. Flushing, New York: Medical Examination Publishing Company, Inc., 1967. 215 pp. \$6.

There has long been a need for a textbook on cancer chemotherapy for the practicing physician. The paperback volume by Dr. E. S. Greenwald fulfills this need admirably. There is not too much emphasis on speculative or controversial matters nor is there an overemphasis on personal, limited experience, but rather this volume provides the reader with a critical review of the ever-expanding published work on clinical cancer chemotherapy. The bibliography is extensive yet critically selected. The recommendations are based upon the author's experience as well as familiarity with major published studies.

This book of 215 pages has an introductory chapter on the pharmacology of the useful cancer chemotherapeutic agents and major chapters on each of the frequently used drugs in clinical practice. Reference to new agents likely to be available to the practicing physician is also included, and there are special chapters on hormonal therapy, special problems in toxicity, and the chemotherapy of specific human malignancies.

This volume is heartily recommended to the practicing physician who wishes a compendium on this important clinical area.

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