

Book Reviews

Cancer Incidence in Five Continents: A Technical Report.

Richard Doll, Peter Payne, and John Waterhouse (eds.). New York: Springer-Verlag, 1966. 244 pp. \$9.50.

This volume is packed with information and wisdom. It presents a strong case for the usefulness of extranational comparisons as a source for clues on which to base hypotheses concerning the origins of cancer. In reporting cancer incidence around the world, the editors have properly confined themselves to data from population-based registers. Their thinking is thoroughly modern, as they include a succinct section on data processing, and their discussion of the limitations as well as the usefulness of registry data in the evaluation of treatment policy are well handled. The introductory chapters constitute a valuable short course on what a register is, what it can do, and how to make it operate well. Data are reported from 32 registries in 24 countries. Each specific report is preceded by a description of the registry, how registrations are made, what follow-up is undertaken, physical and demographic descriptions of the area and people covered, and some remarks made on medical services and publications. The volume concludes with a direct comparison of incidence recorded by each registry—age standardized according to three populations, African, World, and European, with appropriate cautions about comparisons made between registries.

The editors of this volume are to be commended for a thoughtful, scholarly work replete with information that should stimulate much good work on the etiology of cancer. This book should be on the reference shelf of everyone concerned with cancer in man.

Marvin A. Schneiderman

Hereditary Factors in Carcinoma. Recent Results in Cancer Research. Henry T. Lynch (ed.). New York: Springer-Verlag, 1967. 186 pp. \$6.

This small volume has an admirable purpose: "to illuminate . . . [the] genetic etiology for certain malignant neoplasms." All but two of the twelve chapters were written by Dr. Lynch. His task was immense, for it included review of a long list of inherited disorders with high risk of cancer and the genetics of six common and eleven uncommon cancers, as well as separate chapters on lymphoreticular neoplasia, tumors of the nervous system, cancer and congenital defects, "cancer families," genetic cancer counseling, and emotional factors in the delay of cancer detection. Almost half of each chapter is bibliography (through 1966), and, though there are important omissions (e.g., references on childhood leukemia in mongolism or twins), this feature, plus the listing of evidence concerning the inheritance of human cancer, are the main assets of the book.

Unfortunately, the presentation is impetuous rather than scholarly. It lacks integration and perspective, and is

plagued by repetitious, irrelevant descriptions of symptoms and of therapy (e.g., stomach cancer and pheochromocytoma). There are numerous paragraphs quoted from other authors, redundancies ("digital finger" and "dolichocephalic head"), awkward phrases ("in some the disease while in others palpation of the masses [exostoses] or X-ray examination will confirm the diagnosis"), an abundance of typographic errors, including "a recent interview of the literature" and "taughtness" (tautness), and no index. The printing is from an ordinary typewriter, so the right-hand margin undulates widely and the lettering varies in intensity and alignment. It is almost as if the book were published by the underground. In consequence of the many deficiencies, the illumination which the author hoped to cast on his subject is greatly dimmed.

Robert Miller

Regulation of Nucleic Acid and Protein Biosynthesis. V. V. Koningsberger and L. Bosch (eds.). Amsterdam, The Netherlands: Elsevier Publishing Company, 1967. 412 pp.

The general principles of the function of genes in the storage, expression, and reproduction of biologic information seem to be clear; it is, however, apparent that the interlocking mechanisms whereby these processes are controlled within the organism are only vaguely understood, and in most cases exact chemical descriptions of these macromolecular interactions are lacking. A symposium was organized and held in The Netherlands in June of 1966 to review and critically evaluate work on this subject; this book is the compilation of 34 papers presented there.

Under the subject "DNA Synthesis and Its Regulation," the enzymology of replication and repair of DNA was reviewed (Kornberg, Setlow) and related to genetic parameters in phage-bacteria systems (Cuzin, Van de Putte, Devoret). The ultrastructure of animal chromosomes was also discussed (Ris). In a session on "RNA Synthesis," recent work on polynucleotide phosphorylase (Ochoa) and asymmetry of transcription by RNA polymerase (Martin, J. A. Cohen) was described, together with a review of the enzymic replication of phage RNA (Spiegelman, Weissman, Fiers). Under the subject "Protein Synthesis, new work was described on amino acid activation (Zamecnik), formation of the peptide bond (Lipmann), extraction of messenger RNA from reticulocyte polysomes (Arnstein), and the role of ribonuclease (Elson).

The symposium also included a number of topics under the heading "Regulation of RNA and Protein Synthesis." Reviewed here were the effects of hormones and histones on the transcription mechanism (Bonner, Sluyser, Langan, Sekeris), the use of viral RNA as messenger in protein synthesis (Capecchi, Bosch), biochemical and genetic aspects of the synthesis of histidine, tryptophan, and α -glucosidase (Ames,