Book Reviews

Cancer—Science and Society. J. Cairns (1978) San Francisco: W. H. Freeman. 199 pp. $12.00 (HB), $5.50 (PB).

Anyone concerned with cancer research must have been struck by the gulf which nearly always divides the clinician treating patients and the cancer research worker in his laboratory. One side’s view is well put right at the end of this excellent book: ‘‘. . . doctors who treat patients . . . believe they will gradually find better and better combinations of drugs for treating more and more types of cancer and, in this way, will eventually start to make major inroads into cancer mortality without having to understand very much about the mechanism underlying the origin and spread of the disease.’’ The cancer research worker, on the other hand, believes that only a scientific study of the causation and nature of the different kinds of cancer cell will lead to rational preventive and therapeutic measures. He can reasonably hope that such a treatment will have fewer side-effects, be cheaper and more effective than those resulting from empirical study, but if he is honest he will have to admit that he has no idea now which of the many lines of current cancer research will give him his breakthrough.

The great merit of this book is that it covers shortly and in admirable style nearly all the major approaches to cancer research. Starting with the varieties and cellular origins of cancer, it goes on to cover the complex epidemiology and environmental factors affecting the disease. This is followed by an introduction to current molecular biology and genetics which lays the foundation for a major section of the book, which is a survey of cancer research, considering first, the role of chemicals, radiation and viruses. Most emphasis is given to chemical carcinogenesis, reflecting our current preoccupation with this subject. The point is made that despite a 100-fold increase in the production of pesticides, plastics and artificial rubber in the United States in the last 30 years, the incidence of most types of cancer, except that for the lung, is still falling.

The discussion of viruses in cancer is helpful and realistic, reflecting the author’s view, however, that viruses are probably not important for the naturally occurring cancers of man, but nevertheless are important in their own right as experimental systems for the study of carcinogenesis.

The second part of the survey of cancer research is concerned with the properties of normal and malignant cells. The discussion of the differences between them at both the histological and the cellular level reflects rather a pessimistic view about our current ability to identify cellular differences sufficiently large to be exploited therapeutically, but this is still the area which has greatest potential.

Finally, the author considers the time course of cancer, its often long latent period, its several intermediate clinical stages, and returns to the theme derived earlier from epidemiology, that there must be several steps in the development of the disease. One of these must involve, almost invariably, a change in the genetic level (in the DNA) but the other steps may occur elsewhere and provide different possibilities for intervention.

This is a humane and scholarly book; short, at less than 200 pages, and, for these days, very cheap. It is well illustrated and each chapter is provided with references for further reading. It can be recommended to both medical students and to cancer research workers. Most of it should be readily understood by the educated layman concerned about cancer. It is compulsory reading for all pressure groups in the cancer field.

P. M. B. Walker

Hodgkin’s Disease and the Lymphomas, Vol. 3 (Ann. Res. Reviews). Ed. C. R. Taylor (1979); Churchill Livingstone. 437 pp. £16.50.

Clive Taylor opens this review by stating that it is directed towards assisting the histologist to understand the immunologist, the immunologist to communicate with the histologist, and the clinician to interpret the
histologist’s report and the immunologist’s functional finding. This is a mammoth task when one realises that there were over 1500 references to be reviewed in the 1977 literature alone. It is not surprising, therefore, that in this, his 3rd annual review, Clive Taylor has invited other workers from the University of California to assist.

The subject matter covers a wide range of conditions which may be considered to fall under the general heading of malignant lymphoma, including lymphocytic leukaemias and myeloma. The first third of the review deals with surface marker, ultrastructure, cytochemistry, genetic and kinetic studies of lymphoid malignancies. The rest of the review deals in detail with the pathological and clinical aspects of the different disease groups. The authors are to be congratulated that the subjects are dealt with in a clear, easily readable style rather than a simple list of references. Despite the high quality of the reviewers, after reading the chapter on the pathologic classification of non-Hodgkin’s lymphoma, I felt that the quote of R. Willis (1948) which opened Chapter I was still true: “Nowhere in pathology has a chaos of names so clouded clear concepts as in the subject of lymphoid tumours”.

Research workers and clinicians alike will find this a valuable review of a difficult subject.

J. H. Scarffe

Breast Cancer. Advances in Research and Treatment. Vol. 3—Current Topics. Ed. W. L. McGuire (1979) New York: Plenum Publishing Corp. 271 pp. $39-50.

This is the third book in this series covering all aspects of breast cancer; its subtitle “Current Topics” aptly describes the range of contributions to the book, and the chapters are all written by experts in their particular field. The authors give lucid evaluations of the present state of research into the basic biology of breast cancer and into modern techniques of assessment and treatment of the disease.

There are chapters on the factors influencing metastasis and on mechanisms of tumour regression. Much attention is paid to the effect of the hormone environment on the natural history of the disease, in both males and females. All are intriguing, as they pose as many questions as they answer and they pin-point avenues of future research.

The position of steroid-receptor analysis in the assessment of breast cancer is well established, and the chapter by the editor of this book, Bill McGuire and his co-worker Gary Chamness, gives a clear summary of the assay methods available, and some of the pitfalls that may be encountered by newcomers to the field.

There is an interesting chapter on mammography which summarizes the recent reports on the risks and benefits from the procedure, and the author emphasizes the factors that should be considered before launching into screening programmes.

The real value of the book is that it has been written by people actively involved in their particular area of breast-cancer research. Each author gives a comprehensive literature survey and builds on that background to highlight the direction in which they think that research should proceed in the future.

D. Barnes

Carcinogenic Risks: Strategies for Intervention. Proceedings of a Symposium organised by IARC and l’Institut National de la Santé et de le Recherche Medicale, 1979. Ed. W. Davies (1979) WHO. 283 pp. 50 Sw. Fr.

The object of the symposium was to highlight experiences and problems in this subject area which spans scientific, legislative and public opinions. The reader is spared a detailed description of legislative actions in various countries, although sufficient information is provided to give a flavour of the legislative approach in France, Finland, Sweden, the U.K. and U.S.A.

The proceedings of the symposium consist of 25 papers organized into an introduction, 5 sections and a summing up, with each section carrying a discussion summary. The 5 sections, on smoking, occupational risks, food additives, drugs and pesticides, measurement of carcinogenic risk and strategies of intervention, use some of the problems and paradoxes in the control of carcinogenic risks to illustrate its complexity. A welcome feature is the attempt by some speakers to identify the role of scientists as those responsible for providing data which should be