Anthracycline analogues, such as adriamycin, have been studied in many countries since its original discovery in Italy, and the U.S. contribution to this field by R. S. Benamin reviews the more recent work. The clinical use of adriamycin is not as frequent in Japan as in Europe and the U.S., being replaced to some extent by mitomycin C. However, H. Furue and T. Komita have reviewed the Japanese application of this agent. Specialized papers of macromomycin aclacinomycin and neocarzinostatin also appear.

A paper by Y. Sakurai, apparently out of context with the main theme of the book, discusses some of the synthetic analogues of nitrosoureas, alkylating agents, antimetabolites and platinum complexes under present study in Japan.

The whole book is a most useful addition to the library of both students and practitioners of oncology. As with many such books, however, the lack of an index is inexcusable. Its value could have been immensely enhanced by even the shortest listing, of drug and tumour data contained within it.

B. W. Fox

Radiobiology for the Radiologist. 2nd Edn. E. J. Hall (1978). Maryland, U.S.A.: Harper and Row. 460 pp. £25.00 net.

This is the second edition of an already highly regarded text. The subjects presented are wide-ranging, in order to cover material relevant to Diagnostic Radiology and Nuclear Medicine, as well as to Radiotherapy. Modifications in this edition include an expansion of the section on carcinogenesis and genetic effects, with a discussion of risk versus benefit which is similar to the ideas embodied in the new ICRP recommendations. Also, for the radiotherapist, sections on sensitizers and hyperthermia have been expanded in the light of much new information, and the sections on high LET and human tumour kinetics have been updated.

On the radiotherapy sections, the reviewer has a few comments. The mathematical reason why 37% survival is chosen as a parameter for defining the slope of cell-survival curves is not given, and it could help students in their understanding. In discussing LD_{50} endpoints, *e.g.* for mouse lung, the rather ambiguous statement that a dose-response curve is not obtainable may surprise many radiotherapists who recognize such curves for the incidence of complications or recurrence. The rationale for low-dose-rate radiotherapy includes reoxygenation and overall time, but the still-controversial facet of a reduced cellular "oxygen effect" is not mentioned. The phrase "thermal tolerance" is used here and widely by others to denote acquired resistance to heat after prior heating. This conflicts with the accepted meaning of tolerance in radiotherapy, and can be a source of confusion.

The new S.I. units are quoted in some cases as footnotes, but as this volume appears during the coming-of-age of S.I. units, a table of common comparative values would have been useful. In general, the presentation is lucid, concise and quantitative. Key words are emphasized in bold type, and sufficient examples are given for teaching purposes. This book is strongly recommended for students of Radiology and Radiobiology. It covers the syllabus of many teaching courses, including Diagnostic Radiology for the Radiological Society of North America.

J. H. Hendry

Asbestos and Disease. J. J. Selikoff & D. H. K. Lee (1978). New York: Academic Press. $31.50.

This book has taken a long time to appear, and many of us have been apprehensive about the contents. Now that the waiting period is over, we are relieved to find that it is a comprehensive review of the literature on the diseases associated with exposure to asbestos dust. As it has had a long preparation most of the references are about 5 years old, but in places it has been brought up to date by addenda or with current reports from the Mount Sinai School of Medicine in New York. Further, there is a loose page labelled "Comments, Clarifications and Errata", which keeps getting mislaid.

The literature has been studied in a most thorough manner, nearly a third of the 3000 references being quoted. From many, the highlights have been used verbatim, and a large number of tables from acknowledged sources appear. The authors have covered most of the hard-fought controversial facets of the story and have, on the whole, been impartial. The major exception to this is the failure to quote the full evidence implicating

exposure to crocidolite dust as the major factor in the development of diffuse mesothelioma in man.

It is claimed in the preface that the book is for those involved in one of the many fields of knowledge required to study an occupational hazard, so that they will be able to appreciate each others' problems. If this is the aim, then it is too detailed for the non-specialist. It also suffers from the "multiple authors syndrome" with sudden changes of style, including verbatim quotations in the clinical and pathology section. The Pathogenic Mechanism section is most disjointed.

The book follows the routine course for the study of an industrial hazard, starting with an historical background, moving through asbestos as a mineral, mining, manufacture, identification and quantitation of asbestos fibres and environmental distribution. This completes Part I of the book, in which one feels the information is too detailed, particularly in the discussion on identification of the fibres, where most of the methods described have been modified or replaced in this rapidly developing field of study.

In Parts II and III the detailed descriptions are given of the 4 diseases associated with asbestos: parenchymal asbestosis, pleural asbestosis, mesothelioma, and asbestos-associated carcinoma. These are all considered separately under similar headings and the association with asbestos dust confirmed by an updated version of Koch's postulates. Although the facts are clearly stated, this repetitive method becomes monotonous, and the information could have been dealt with in a much crisper fashion. Part IV on pathological mechanism is a mixture of solid fact and flight of ideas. A detailed description of a flow chart of the human gastro-intestinal tract is unfair on the reader. The final statement in this section is Jack Harington's suggestion that the anus could be a portal of entrance for asbestos fibre. Surely this is a comment of fundamental importance.

Incidentally, in the section on "Tumorigenicity of Short Fibres" we are misquoted. The chrysotile fibres we used were straight and fine, but not short in the terms of fibres used in implantation experiments.

Part V on prevention and control gives a sober account of methods used mainly in the United States and in Britain, with somewhat dated notes on the action taken by other countries.

On the whole this is a useful and detailed review of the subject. I would not suggest that everyone concerned with industrial hygiene should have a copy, but it certainly will be used as a reference book in all faculties concerned with occupational health.

J. C. WAGNER

National Cancer Institute Monograph 48. Gene Expression and Regulation in Cultured Cells. Ed. K. K. SANDFORD (1978). U.S. Dept. HEW. 401 pp. $10.00 net.

This massive volume contains papers presented at the conference held in Lake Placid, New York in September 1976. The papers cover a wide area of research in the field of tissue and organ culture, with topics ranging from molecular cloning of DNA to *in vitro* research in neurobiology. The papers are collected together in the sessions in which they were presented, 10 in all, and each paper is preceded by an abstract and followed by the relevant discussion. The amount of detail presented by individual authors is, however, variable.

In the session of Molecular Cloning of DNA, 3 papers were presented, 2 of them almost in abstract form, whilst the third presents much experimental detail.

In session II, Fusion and Cellular Modifications, 6 papers are presented all with considerable experimental detail and well illustrated, the quality of reproduction of the electron micrographs being particularly good. The topics covered range from cell genetics as studied by hybridization methods to red-cell-mediated microinjection techniques.

Two sections were devoted to growth factors and control of cellular proliferation, comprising 11 papers in all. Sato, in his introductory remarks as chairman of this session, reviewed the recent advances which include the establishment of functionally differentiated cultures which retain normal responses, the isolation of new growth factors, the development of better tissue culture media and the realization that the main role of serum is to provide hormones necessary for growth and maintenance. The papers covered many aspects of growth control, in a variety of epithelial and fibroblastic cell systems, and represent a valuable reference collection for