moortality statistics generated by the National Cancer Registration Scheme—the aim of which is to obtain data on every cancer case in England and Wales. As usual, tables are given for each individual year and/or for the total period (1968–70) which show the numbers of cases of different cancers registered, and the corresponding registration rates and/or standardized registration ratios, for males by occupational order and for each sex by hospital region, by age, and by degree of urbanisation of place of residence. Annual standardized registration ratios for 1962–70 and updated versions of some tables from the last report were also included, as are analyses of cancers of selected sites by stage when diagnosed; and much more information than ever before is given about survival, including survival rates for the 1962–63 cases at 5 years and for the 1954–55 cases up to 15 years.

The latter figures confirm that there are substantial proportions of patients with some cancers who survive after treatment to a point at which they can be regarded as “cured” in the sense that their mortality thereafter is no higher than normal. In cancer of the colon or rectum this point seems to have been reached within ten years, when the corrected survival rate (the actual number alive divided by the number who would have survived if mortality had been the same, age for age, as in the general population) was about 25%. The corresponding rates for several other common sites (breast, uterus, bladder) were high enough and showed little enough decline after 10 years to suggest that they too might eventually stabilise above 20%.

Although it is a pity that the survival figures could not be broken down by stage of tumour at diagnosis, a much graver weakness of this report as a whole, as of its predecessors, is the incompleteness of the data on new registrations. State at diagnosis was not recorded for the majority of these; and a comparison of the numbers of registrations listed here and the mortality statistics in Part I of the Registrar General’s Review suggests that registration itself is very incomplete in some hospital regions. In most, the deaths attributed to lung and stomach cancer outnumbered the cases registered, by nearly 20% for lung cancer and 50% for stomach cancer in one region in 1970, and the regions with high ratios of deaths to registrations tended to be the same for each cancer.

Although the incompleteness of registration is not likely to have biased seriously the long-term survival figures, it seriously detracts from the value of the other tables in the report; those giving registration rates by site and sex for each hospital region, for example. Until the standard of registration improves in the regions where it is low, the moortality data from these sources are unlikely to add much to what mortality statistics, like those in the Atlas reviewed earlier, can teach us about the geographical distribution of cancer.

IAN LECK

Differentiation and Control of Malignancy of Tumor Cells. Ed W. Nakahara, T. Ono, T. Sugimura and H. Sugano. (1975) Baltimore: University Park Press. 544 pp. Price £18.00

This book, which contains papers presented at the 4th International Symposium of the Princess Takamatsu Cancer Research Fund (Tokyo, 1973) is well laid out and discusses a wide variety of topics ranging from gene expression and control of differentiation to studies on tumour “reversibility”. Because of this, there is something for everyone—biochemists, molecular biologists and cell biologists—including those people not necessarily working in cancer research. Covering such a range of subjects, the book is particularly good for references and each presentation is followed by an adequate discussion which adds greatly to the merit of the book.

It is divided into four main sections, each containing several contributions. The first part, on the regulation of gene expression, is well covered by authors such as Tomkins, investigating the mechanism of action of glucocorticoids; Paul, studying haemoglobin synthesis in Friend leukaemic cells and showing that both transcriptional and translational controls of several genes are involved; Dubé, with a comprehensive section on the effects of DMSO and cyclic-AMP on differentiation of erythroleukaemic cells; Rutter who, discusses the role of RNA polymerases in both transcription and replication of the genome; and Weber, giving a detailed, highly personal view of the work in his laboratory in analysing the biochemical patterns of neoplasia (molecular correlation concept).
The second part, on phenotypes of tumour cells, is less satisfying but includes contributions by Weinhouse and Schapira on the expression and significance of foetal enzymes during tumour development.

The third part, on control of differentiation, is for cyclic AMP and BrdU "addicts" and includes a nice section written by Silagi who has been investigating the reduction in tumorigenicity of cultured melanotic melanoma cells following treatment with BrdU. Host rejection of BrdU treated cells is put down to an enhanced production of C-type virus particles leading to increased antigen levels, hence stimulating an immune response which results finally in the rejection of the treated cells. Also in this section is a stimulating article by Holtzer who argues that differentiation is the sum of multiple binary decisions made during quantal cell cycles.

Finally there is a very good section on tumour reversal. This is opened by Barski with a good account of the contribution of somatic cell hybridization to the understanding of malignancy. His conclusion that "no systematic and significant relationship could be established between the tumour-producing capacity and a particular karyological pattern" is somewhat at variance with the recent results of Wiener, Klein and Harris and obviously more work along these lines is needed. In this section also, is an article by Pierce who argues that stem cells are the target cells in carcinogenesis. This is not as specific a target as first appears since stem cells are defined as "any cell capable of synthesising DNA whose progeny undergo further differentiation" (!).

Finally, there are several articles on factors stimulating differentiation of mouse leukemic cells (myeloid and erythroid).

Though quite expensive this book is well worth having in the library.

T. M. DEXTER

Synopsis of Gynecologic Oncology.
PHILIP J. DiSALIA, C. PAUL MORROW and DUANE E. TOWNSENDE. (1975) New York: John Wiley & Sons. 344 pp. 138 illus. 64 tables. Price £10.00 net.

This book is one of a series of monographs designed to assist obstetricians and gynaecologists to maintain high standards of professional knowledge despite heavy clinical workloads. Based on material presented in the Continuing Education Programme of the American College of Obstetricians and Gynecologists, it is clearly aimed at those who have chosen gynaecological oncology as their specialty. In North America it will be of equal value to candidates for subspecialty qualification and recertification and to established gynaecological oncologists; similarly in Britain, it will provide valuable reading for those preparing for the relevant higher qualifications and also for those gynaecologists, radiotherapists and physician oncologists who are active in the field of gynaecological cancer.

As leaders of the section of Gynecologic Oncology at Los Angeles County, University of Southern California Medical Center, the authors have been able to draw upon their own considerable expertise and clinical material, but they have also made use of the experience or other experts in the field, notably the senior staff of the M. D. Anderson Hospital in Texas.

The general rules for clinical classification and staging of gynaecological cancers adopted by the International Federation of Gynaecology and Obstetrics (FIGO) are set out in the initial chapter, and each appropriate section of these rules is usefully repeated in the subsequent chapters on cervical and endometrial cancers, ovarian tumours and cancers of the vulva. Each of these chapters provides a concise yet comprehensive account of the relevant aetiology and epidemiology, pathology, diagnosis, treatment and prognosis; an exception is the very scant reference to the use of progestins in the treatment of endometrial adenocarcinoma, no cross-reference being made to a more detailed account of this mode of treatment which is somewhat surprisingly included in a separate chapter on chemotherapy.

In addition to cancer chemotherapy, there are other separate and very useful chapters dealing with colposcopy, trophoblastic tumours, and tumour immunology. Many readers will be grateful for the comprehensive immunology glossary included in the last mentioned chapter. Short chapters on hyperalimentation and on the management of intestinal stoma reflect the authors' very extensive experience of the surgery of gynaecological malignancy, while the detail and clarity of the sections on radiobiology and radiotherapeutics in each of the