flow cytometry (high speed cell counting and analysis in aqueous solutions). This technology has now developed into a sophisticated science with a range of commercially available instruments (Ortho Cytofluorograf, Fluorescence Activated Cell Sorter, Coulter Two-Parameter Sorter, Pulse Cytophotometer, Technicon Hemalog D, Block Engineering Cytomat-R System: all individually discussed at the end of this book). These instruments considerably expand the technical facilities for experimental and clinical work alike. It would be difficult to follow the latest developments from the literature published by clinical journals. It is therefore most fortunate that the first major summarising book in this area can be regarded as an unqualified success (and may turn out to be a classic). The secret of this book lies in its three assets: the remarkable collaboration between pathologists and engineers during its preparation, the strict editorial discipline, and the excellent illustrations. All these are needed to promote clear presentation of a primarily technical subject to a medical readership. The editors (who are medically and scientifically qualified) first give an historical review followed by an introduction and résumé of 41 individual chapters. These chapters, written by the undisputed leaders of each field, deal with cytophysical methods (principles of cell measurements, physical basis for cell sorting), sample preparation (tissue disaggregation, selective cell enrichment, cell electrophoresis), cytochemical methods (principles of cytochemistry, quantitative DNA staining for flow cytometry, fluorescence probes for nucleic acid analysis, enzyme analysis of single cells), standards and data processing, and a series of chapters on the application of flow cytometry in cell biology (cell cycle analysis, study of viral effects, flow cytogenetics, study of cell differentiation), in immunology (analysis and sorting of lymphoid cells after labelling with fluoresceinated antisera), in haematology (enzyme analysis and differential leucocyte counts) and in oncology (analysis of cytology specimens for cancer detection, leukaemia analysis and drug effects). The details given in the book may help to plan your laboratory for the next decade but also indicate that none of these instruments will fully substitute for a good bench microscope and a careful investigator. A reasonably priced book with page size larger than usual and extensive reference lists at the end of each

chapter, this is strongly recommended for all pathology departments and medical libraries.

G JANOSSY

Diagnostic Parasitology. Clinical Laboratory Manual. 2nd ed. Ed LS Garcia and L Ash. (Pp viii + 174; illustrated; £9.) YB Medical Publishers. 1979.

Although there are many books on medical parasitology, this ring-back bench manual is one of the few that is concerned first and foremost with laboratory diagnosis. The subject presents the problem that there is no practicable routine that can be relied on to uncover all parasitic infections. Even in the UK there must be few, if any, diagnostic laboratories with the staff to perform in full the procedure followed here, except for special cases and projects. However it is valuable to have this lucid account in simple language of the methods which the authors have found most useful. Apart from everyday techniques there are sections on animal inoculation, the rôle of egg counts and serodiagnosis, and much emphasis on stained permanent preparations, all supported by references. Succinct descriptions of parasites in the phases used for diagnosis, with good illustrations and a glossary, do all that a book can do to help with identification.

Whether for routine use or reference this book will be most helpful to anyone who has to find and diagnose parasites.

DS RIDLEY

UICC Technical Report Series. 'Screening in Cancer'. Ed AB Miller. (Pp 338; illustrated; 20 Sw Fr.) UICC. 1978.

This volume records the workshop held in Toronto in April 1978 where some 23 experts, many of them epidemiologists, reported results and reviewed policies of a number of the major and significant screening programmes on cancers of the cervix uteri, breast, lung, stomach, and colon.

There are papers on basic epidemiological issues, on identification of the target population and its responses, the sensitivity and specificity of tests, of length-biased sampling, lead time, the detectable clinical phase, and the predictive value of a programme. Methods of assessment of results are discussed, and each cancer is separately considered with

a summary of the State of the Art and concise recommendations for policy and research.

The cervix appears to gain greatest acceptance with consideration of a number of major surveys and a review of the Walton Report of two years earlier. There are still some doubts as to whether disease cycles, cytological screening, or the excess of hysterectomies are the cause of alteration in mortality rates, but the age of commencement and frequency of screening comes in for much discussion in achieving cost-effectiveness.

The breast is still requiring further clarification of the feasibility of screening of ages below 50, though it is admitted that physical examination and mammography have produced a sizable effect on women between 50 and 60 years. Technical improvement in mammography, trials of self-palpation, and the screening by ancillary staff are also discussed.

The effectiveness of the four-monthly chest x-rays and sputum cytology schedules in the three American trials, especially that of the Mayo Clinic, is featured. Photofluorography in stomach cancer screening appears to be almost cost-effective in high-rate countries but not elsewhere.

With the colon, interest concentrates more around an effective occult blood test and less on carcinoembryonic antigens or cytology.

The report is informative, stimulating, and critical and a useful publication for those pathologists interested in this field of preventive medicine.

OGAN HUSAIN

Environmental Health Criteria. 14. Ultraviolet Radiation. (Pp 110; illustrated; 10 Sw Fr.) WHO. 1979.

Amidst all the agitation over radiation hazards, the effects for good and ill of ultraviolet radiation tend to be overlooked. Most of the ultraviolet hazard, of course, is natural so there is no antinuclear or antitobacco lobby to march in protest against the serious increase in skin cancer and melanoma that is now occurring. A slim monograph in the WHO Environmental Health series is a good reminder of the subject. It covers all aspects of photobiology concisely but with enough references to allow for detailed study. Recommended for photopathologists.

HEM KAY