**Book Reviews**

**Journal of Immunogenetics.** Vol. I No. 1. Jan. 1974. Edited by K. Bauer. Published by Blackwell Scientific Publications.

Growing points in medicine tend to occur mainly at the interfaces between disciplines and part of the phenomenon is the generation of "in groups". Since by definition we are all out of most "in groups", keeping up to date is often impossible and one can easily overlook quite important developments. In oncology, for example, relevant articles appear in specialist journals devoted to radiobiology, pharmacology, virology, immunology and genetics while clinical journals carry many articles of oncological interest. Abstracting services provide a partial solution to the problem of getting up to date, but paradoxically the appearance of new specialist journals covering contiguous areas of classic studies may be of great value. Such is perhaps the case with immunogenetics, a subject which involves antigenic polymorphisms and has recently come of age in studies of the genetic control of immune responsiveness and of antibody structure. There is much of interest in immunology and in genetics to cancer studies, particularly the antigenicity of tumours and the ability of the host to respond to them. The immunological and genetic interactions between oncogenic viruses, host genotypes, somatic mutations and environmental mutagens are, with cell kinetics and the genetic control of differentiation, areas of great interest in fundamental oncological research.

In his editorial introduction to Volume I, Number 1 of the *Journal of Immunogenetics*, Dr Bauer quite rightly includes workers in cancer research as being among those likely to be interested in this new journal. However, of the 6 articles in this first issue of *Immunogenetics* only one, that by Falk and Osaba, on the association of HL-A with Hodgkin's disease, is obviously related to a cancer. This should not put oncologists off, as the connection with cancer may be more subtle and the first article by Wang and Fudenburg on IgA is a good example. This deals with the development of ideas on the evolution of immunoglobulins, made possible by the study of myeloma globulins. An understanding of the structure and genetic control of the synthesis of immunoglobulins and of the nature of their specificity is being slowly developed and is important in our understanding of the way in which antibodies may paradoxically "protect" tumours, or alternatively may be instrumental in the destruction of tumour cells. Similarly, in a later article Festenstein and his colleagues report some of their work on the activation of mouse effector cells. It is believed that similar cells may in certain circumstances be destructive to tumour cells and are the basis for much current research in oncology. The genetic locus studied by Festenstein is closely linked to, but separate from, other components of the major histocompatibility locus of the mouse, H-2. Since this is now generally accepted as being homologous with human HL-A, the relevance of this work to man is clear. The final paper in the first number of *Immunogenetics* is a discussion of Ir (immune response) gene function by Marchalonis, Morris and Harris, in which it is suggested that the products of these genes may act to cover up self antigens and allow an immune response to "foreign" antigens (and perhaps tumour antigens) with which they cross react.

Few would dispute the relevance of immunogenetics in cancer and one must welcome the appearance of this new journal. However, it remains to be seen whether this journal will include many cancer orientated articles and whether a balance can be obtained between good review articles and detailed descriptions of new data. Many people, experts as well as those without formal training in either genetics or immunology, would undoubtedly greatly appreciate such a journal.

**R. Harris**

**Proceedings of the Tenth Canadian Cancer Research Conference 1973**
Edited by P. G. Scholefield. (1974). University of Toronto Press. 183 pp. £9.50.

This volume presents the 12 formal papers presented to that Conference, 3 papers on
each of four topical subjects in the field of cancer research: endogenous virus, environmental factors, tumour immunology and chemotherapy. Each batch of 3 papers includes one selected for its clinical implications, to ensure the interest of clinicians. It will be appreciated that 3 papers give a very restricted coverage of each topic.

The rest of the conference consisted of informal discussion Workshops under 20 different headings, none of which is published in these Proceedings.

Endogenous viruses

Zur Hausen describes the detection of EB virus in the epithelial cells of nasopharyngeal carcinomata. He failed to detect, however, Herpes simplex 2 in cervical tumours in spite of the extensive evidence of an association between them. Martin and Weiss give a general account of the evolution and genetics of oncorna viruses which they use as the basis of their own version of the oncogene-proto virus hypothesis. McCarter, Ball and Wong conclude that the leukaemic and sarcoma virus of the mouse (MLV and MSV) can be regarded as recombinants of each other.

Environmental carcinogenesis

Newcombe advocates the use of new computer technology for the complete prospective recording of the population of a province or even nation as the basis for epidemiological studies. Koestner presents evidence of transplacental carcinogenesis in the rat with MNU and ENU. Stich et al., in a general account of DNA repair processes, advocate their use to detect carcinogens, but the rate of repair of DNA is equally dependent on the amount of damage sustained and the efficiency of repair processes. Thus, for a known carcinogen, the amount of DNA repair would be inversely related to the carcinogenicity.

Tumour immunology

This topic is favoured with two clinical papers. Lewis has studied autologous antibodies in melanoma. He concludes that their presence delays metastasis and they are therefore the key to the control of the disease. Powles gives the shortest paper in the conference but it is probably the one of the greatest interest to clinicians. It describes the prolongation of remission (not cure) of myelogenous leukaemia by stimulating the patients' immune response with a combination of B.C.G. and irradiated allogeneic myeloblastic leukaemic cells. Prehn airs his scepticism of immunological surveillance as the natural method of controlling cancer. He avers that the patients' immune response to a tumour is both too little and too late.

Chemotherapy

Hall argues for a more scientific approach to the selection of chemicals and particularly of combinations of chemicals for clinical use. Bruce criticizes the criterion of size alone as a measure of the response of an animal tumour to treatment and recommends the use of transplantability also as a measure of its viability. LePage describes successes in chemotherapy by a combination of a sophisticated thio guanine derivative (\(\beta\)-2'-deoxythioguanosine) and cytosine arabinoside.

This slim volume is luxuriously produced and expensive. It is no doubt a boost to the morale of Canadian cancer research (though half of the 12 papers are from non-Canadian laboratories). One would expect most of the material to appear elsewhere before or after the conference. It is doubtful therefore whether it makes a worthwhile contribution to the world literature on cancer research.

A. J. Bateman