are well referenced and indexed, and discussions are included. The presentation of the book is of a high standard and is recommended as a detailed and comprehensive treatise on the use of tissue temperature in diagnosis and in therapy. It is unlikely to be bettered until many of the problems discussed have been largely solved.

J. Hendry

Long Term and Short Term Screening Assays for Carcinogens: A Critical Appraisal. IARC PUBLICATION REPORTS. (1980). Geneva: WHO. 426 pp. 40 Sw. Fr.

This is definitely one of the more worthwhile appraisals in this series and offers an acceptable foundation for anyone entering the field of carcinogen screening and a useful reference source for those already in the field.

The first report is concerned with long-term assays, and details practically every pitfall of such systems. This is so important in assay systems which have so many inherent variables. Everything from the administration of the test substance, through animal caging/beding selection, to processing of the data is discussed.

The reports on 'Mutagenesis Assays in Bacteria', 'Mutagenesis Assays in Mammalian Cells', 'Transformation in Cell Culture' and 'Cytogenetic Damage as an end point in short-term Assay systems' are well and enthusiastically presented, detailing the advantages and disadvantages of both, the particular class of screening test and the detailed and varied methods encompassed within each class.

Perhaps the most interesting report in the book is that on 'Mutagenesis Assays with Whole Mammals'. This is an area that has been relatively poorly studied and theoretically represents the situation closest to that in real life. Conversely, the Yeast, Drosophila and DNA-repair chapters tend to demonstrate that these areas are outmoded.

A. Kinsella

The Occurrence of Tumours in Domestic Animals (NEI Monograph 54). W. A. Priestner and F. W. McKay. Bethesda: National Institutes of Health. 210 pp. U.S. $8.50.

The expectation that research into neoplasia in domestic animals would provide new insight into the origins of human cancer, led to the establishment in 1961 of the Epizootology Section within the Epidemiology branch of the National Cancer Institute.

Data from 15 veterinary schools in the U.S.A. and Canada have been processed at the National Cancer Institute and the details on neoplastic disease are published in the present volume.

Neoplasms in cats were mainly malignant (88%) and horses had the lowest proportion of malignant tumours (40%) with dogs (56%) and cattle (77%) intermediate.

The tumours most commonly seen were:

- Cattle; squamous-cell carcinoma, lymphoma, leukaemia.
- Horse; squamous-cell carcinoma, malignant melanoma, fibrosarcoma.
- Cat and Dog; tumours of the skin, haemopoietic and lymphatic tissues, and mammary gland.

In many cases the R (summary relative risk) values are given. For all tumours in dogs the Boxer had R 3·4 and the St. Bernard 3·0. The Pekinese R value was 0·2 for the Beagle (commonly used for carcinogen testing) R was 0·9. High R values in osteosarcomas were seen in the St. Bernard (10·9) and Gt. Dane (7·9), whereas in the Chihuahua it was 0·1.

For canine haemopoietic and lymphatic neoplasms, the Boxer headed the list (3·9) with the Bassett Hound (3·6) and the St. Bernard (3·3) very close.

In cats the R value for haemopoietic neoplasms was 4·5 in the Manx breed and 3·1 in Burmese.

The monograph provides a mass of interesting observations and is excellent value at $8.50.

L. N. Owen

Interferon 2. Ed. Gresser (1980). London: Academic Press. 95 pp. £6.80.

Following the successful first volume in 1979, this book will have been enthusiastically awaited by specialists in several fields, not only because it succeeds in bringing together between the same covers diverse aspects of current interferon research, but also because this research is advancing with quite exceptional rapidity simultaneously on all fronts.

Knight deals in the first chapter with the
purification and characterization of the interferons, without actually telling us how these were achieved, and delineates properties of homogeneous human and mouse interferons (anti-tumour activity and modulation of immune response), long since inferred from partially purified preparations. This will be gratifying to those who have yet to gain access to the pure materials for their work.

Taylor-Papadimitriou deals with the effects of interferons on cell growth and function. This chapter is rather more demanding on the reader, and although somewhat repetitive of articles by Stewart, Friedman and Revel which appeared in Volume 1, is nevertheless a cogent distillation of present information on this topic.

The chapter by Burke on the interferon-alpha gene system, its chromosomal location and control of expression epitomises the aim of this series, which is to render the recent and often complex advances in one discipline digestible to specialists in others. This chapter succeeds admirably and the role of chromosomes 9, 2 and 5 is lucidly expounded.

On the problems of purifying lymphoblastoid interferon on a preparative scale for clinical use, the ensuing chapter by Finter and Fantes is a pragmatic appraisal of the problems encountered in recent years and the painstaking efforts to resolve them.

The last chapter on lymphokines, cytokines and interferons, despite the eminence of its contributors (Cohen and Bigazzi) is really too brief to be useful, and unfortunately does not bear comparison with other recent reviews in the lymphokine field.

An important aspect of the book is the Report from the Committee on Interferon Nomenclature (Chairman, W. E. Stewart, II). The reclassification of interferon on the basis of antigenic specificities is discussed. The type designations \( \alpha \), \( \beta \) and \( \gamma \), replace the previous designations of leucocyte, fibroblast (Type I) and Type II (immune) interferons, respectively, and all investigators are urged to adopt the new nomenclature. Schemes for the designation of subtypes of each of the major interferon types will be determined at future meetings of the Committee.

M. Moore