ing genes. The quality of the different papers varies, and although some of them are only descriptions of findings of different genetic alterations in small series with no emphasis on the title 'Targets for Therapy', the overall impression of the book is good. Many of the papers point to the dawning potential of oncogenes and their products as targets for specific therapy, and this is exciting reading.

In the first section the epidermal growth-factor receptor homologue c-erb-B-2 is the subject of most papers. The first paper gives a very good overview of the involvement of this receptor in human malignant diseases, and its role in the biology of human cancer. Production of humanised monoclonal antibodies directed against the extra cellular domain of c-erb-B-2, their antiproliferative effects on cultured tumour cell lines and on tumour xenografts seem very promising for the use of this agent in treatment of cancers involving overexpression of this receptor. Clinical trials have started both breast and ovarian cancer patients. Other strategies where antibodies to c-erb-B-2 are coupled to a variety of toxins, drugs or isotopes are also considered in the following papers. They also show the importance of the epitope the antibody recognise in order to be effective in growth inhibition. Monoclonal antibodies against the EGF receptor also seem to be clinically useful both for radio-imaging and for therapeutic applications. These antibodies seem to act as antibodies of EGF, and such antibodies are now also used in clinical trials. The last paper in this section deals with the growing family of fibroblast growth factors (FGFs) and their receptors as possible targets for therapy. More recent experiments, unfortunately not included in the book, indicate that both FGFs and pleiotrophins are likely to be important in tumour angiogenesis. Antibodies to FGF have been coupled to toxins and have shown potential anti-cancer activity toward human breast cancers growing in nude mice.

Section two deals with intracellular oncogene products as targets for therapy, and particularly the ras oncoproteins. This section is in my opinion the most exciting and best written part of the book. The first paper in this section gives an excellent overview of the mechanisms whereby intracellular antigens reach and can be seen by the host's immune system, and sets the framework on which therapeutic strategies can be devised. It contains illustrating figures explaining MHC class I and class II pathways, preparing the reader for the following papers. The overview of the ras oncogenes and their clinical potentials in the next chapter gives an excellent description of the ras signal transduction pathway, and ras activation in tumorigenesis, diagnosis and prognosis. Potential strategies for reverting ras transformation are outlined. This is further explored in chapter 14 where antisense oligonucleotide and ribozyme technology against ras are described. Chapters 15 and 16 where aspects for anti-ras chemotherapy are covered, showing that the ras-processing enzymes involved in farnesylation and prenylation are possible targets for therapy. The frequent occurrence of ras mutations in a range of human malignancies has made the identification of pharmacological agents that block the function of the oncogenic ras an important and exciting possibility in therapy. Mutant ras oncogenes may also be targets for immunotherapy as discussed in chapter 12 and 13. Other oncoproteins such as the nuclear proteins myc and jun have to be more much understood both at the structural and functional level before they can be used as targets for therapy, but when this information becomes available they will surely expand opportunities for pharmacological intervention in growth control.

The third section deals with tumour suppressor genes and immortalising genes. This is the newest scenario of genes found to be involved in tumorigenesis. However, none of the papers points to any possibility of using these as targets for therapy. The function of some of these proteins (both the normal and mutated counterpart) is today fairly well known, and should have been included to give the reader a possibility to understand how in the pathways a possible therapy can be directed. As a review of tumour suppressor genes and their involvement in human cancers these papers are too limited to give the reader an updated knowledge.

Altogether the book is exciting reading and leaves the reader with an optimism that there are great new potentials in using gene therapy for treatment of cancer.

A.-L. Børresen

Handbook of Psycho-oncology
Edited by J.C. Holland & J.H. Rowland, Oxford: OUP, 1992, 785 pp. £37.50.

Psycho-oncology is a new and rapidly expanding field in both research and clinical practice. This comprehensive text book is a welcome contribution, since much of the relevant literature has been scattered in Oncological and Psychological Journals. In recent years, it has become difficult to assimilate the extensive, available, material published.

The Handbook is wide ranging, drawing on cultural, psychological and medical aspects of cancer that contribute to adjustment, as well as special problems posed, for example, by cancer in children or in the elderly. It gives detailed and practical information on important specific areas, including principle treatment modalities, cancer sites, significant adverse effects, psychiatric disorder and sexual dysfunction and covers a wide range of therapeutic interventions. In addition, problems for families and staff are reviewed and chapters on ethics and bereavement find their place. A notable exclusion is a detailed appraisal of training in communication and counselling skills for health care professionals working in Oncology, and somewhat brief coverage is given to important topics such as stress and cancer, and quality of life research.

The authors unashamedly draw on American research and clinical practice for this book, but this creates some imbalance in representing research in the field. Equally, not all aspects of clinical management in psycho-oncology are relevant to British Oncology Services, where there are very few liaison psychiatrists and where the psychotropic drugs suggested may not be available. Fortunately, other briefer texts for the British market fill these gaps (such as 'Counselling and Communication in Health Care' edited by H. Davis and L. Fallowfield and 'Cancer Patient Care: Psychological Treatments' edited by M. Watson).

A strength of this Handbook is the integration of research data to support guidelines in clinical management, although the layout results in some splitting of information through a range of different chapters. Good cross-referencing reduces the frustration of this, but for topics such as depression, major chapters covering all aspects might have been more convenient. This Handbook will undoubtedly become a standard reference text for this field and the paperback edition represents good value for the Library of any Hospital where oncology services are provided. It will appeal to all the disciplines involved in cancer care because of its wide coverage, but is a readable text that has something to offer to the expert as well as the novice.

P. Hopwood

Metastasis: Basic Research and its Clinical Applications
Edited by H. Rabes, P.E. Peters & K. Munk, Basel: Karger, 1992, 394 pp. £34.40.

This book reports the proceedings of a Symposium held in 1991 under the auspices of a German Foundation. The Scheel-Stiftung, according to the preface, is a private Foundation which supports cancer research and holds periodic meetings on different aspects of cancer research. The objective of the organisers was to bring together theoretical, experimental and clinical research related to metastasis. In its aims this Symposium resembles many others that have gone before it. This book suffers, like so many publications of conference
proceedings, in not being up-to-date. There are almost no references to papers later than 1980, and for some self-citations which extend to 1991. In addition to well known major contributors to the field of metastasis, research participants were also drawn from laboratories in Continental Europe, which are not frequently represented at Symposia of this type.

Some of the papers are general overviews, while others report the Authors own studies in detail. On the whole the various contributions are rather disparate, but occasionally authors contrast a related phenomenon. An example is the role of the CD-44, a transmembrane protein involved in lymphocyte transport, for which the group of Herrlich (Karlsruhe, Germany) have obtained convincing evidence of a role in metastasis. On the other hand, I.R. Hart (London, UK) described studies involving a panel of melanoma cells in which no evidence for a direct involvement of CD-44 in metastasis was found.

The subject matter is divided into the following sections:
(1) Concepts, Genetic Aspects and Models
(2) Molecular Mechanisms and Modulation of Invasion and Metastasis
(3) Growth Factors, Angiogenesis, Microvasculature and Metastasis
(4) Aspects of Metastatic Melanoma
(5) Immunological Aspects and Therapeutic Approaches
(6) New Methods in Radiological Diagnosis, Therapy Planning and Therapy of Metastasis

The first section has papers dealing with the role of ras oncogenes and bladder carcinoma and the initial steps in cancer dissemination of rat bladder carcinoma. These raise questions without providing any answers.

The second section is concerned principally with cell adhesion and highlights complexity and conflicting results.

In the third section the discussion of angiogenesis is disappointing and work is reported from investigators who are not prominent in the area. There is, however, a very valuable chapter from L. Weiss (Buffalo, New York). He analyses, in detail, a mechanism for the destruction of cancer cells in the microvasculature based on deformation. Weiss' data for the destruction of cancer cells when trapped in capillaries has long been a key observation in the field of blood-borne metastatic spread. It leads to the concept of metastatic inefficiency which is so evident when the relative infrequency of metastases is compared with the number of cancer cells shed into the circulation. Weiss' suggestion as to how this destruction occurs is compelling and he provides most interesting new data which indicates that treatment of cells with doxorubicin increases biomechanical destruction. In the section on melanoma there are two rather unconvincing contributions on metastasis-associated surface molecules, in addition to the critical analysis of the role of CD-44 to which reference has already been made.

The last two sections contain a mixture of topics and on the whole are of little interest. Immunotherapy with autologous tumour 'vaccines' are reported by investigators from Pittsburgh and Heidelberg with claims of benefits being made on the basis of episodic observations. There is a sense of déjà vu as the investigators do not appear to have taken account of past studies in which claims based on isolated cases failed to be substantiated in properly controlled trials.

The last section contains reports on the use of radio-labelled monoclonal antibodies for diagnosis and therapy. The conclusions do not differ from those which have previously been reported, namely, that expectations greatly exceed actual performance. However, the paper from Weissleder (Harvard Medical School, USA) appears to open a new field; the use of contrast agents for magnetic resonance imaging of liver metastasis by receptor targeting of iron in the liver via the asialoglycoprotein receptor.

The usefulness and value of this volume is limited, but it probably deserves a place in the libraries of larger Cancer Research Institutes.

Atlas of Tumor Pathology – Tumors of the Cervix, Vagina, and Vulva
R.J. Kurman, H.J. Norris & E. Wilkinson, Washington DC: Armed Forces Institute of Pathology, 1992, 262pp.

Over the years since its inception in 1947, the Atlas of Tumor Pathology (known colloquially as 'the Fascicles') has established a well-deserved reputation for authoritative and practical coverage of the surgical pathology of tumours, and has been influential in promoting the standardisation of tumour nomenclature. The latest addition to the Third Series, on tumours of cervix, vagina and vulva, will undoubtedly find its way onto the bookshelves of countless diagnostic pathologists worldwide, and rightly so. As well as being a comprehensive guide to the histological diagnosis of neoplasms and tumour-like lesions, the Fascicles have developed into monographs promoting consistent terminology, and providing relevant information on histogenesis, pathogenesis and clinic-pathological features of lesions. The Fascicles are published at virtually cost price, and this ensures widespread accessibility. There is a great deal of information distilled into a relatively slim volume of 262 pages, and although continuing to serve as a practical bench guide for the busy diagnostic pathologist, the text of this Fascicle is well written and easy to read at more leisure. As we have come to expect, the illustrations (almost all black and white) are of excellent quality throughout, and the references are well chosen and up-to-date.

The first chapters cover embryology and anatomy of the lower female genital tract, followed by a review of Human Papillomaviruses, the latter incorporating a brief but useful section on their molecular biology and association with neoplasia. The rest of the book is devoted to a systematic and very comprehensive coverage of the great variety of tumours and tumour-like conditions to which these sites are susceptible. The section on cervical intraepithelial neoplasia (CIN) is well illustrated, and the text is clear and succinct, but not all pathologists will be comfortable with the classification of CIN (influenced by the Bethesda System) into low grade and high grade lesions. The low grade category combines CIN1 with atypia of condylomatosus and koliocytotic types, and is often associated with infection by the 'low-risk' HPV types, but it carries the potentially risky implication that the lesion is unlikely to progress and does not require treatment.

The chapters devoted to the systematic consideration of individual tumours of cervix, vagina and vulva are admirable, and give an excellent blend of practical diagnostic description and clinic-pathological information. I can whole-heartedly recommend this Fascicle to all surgical pathologists – it contains well illustrated descriptions of all the tumours which most of us are ever likely to encounter – plus a few more! It will also be useful to others in the field of oncology who need accurate and up-to-date information on histological and clinic-pathological features of tumours of the lower female genital tract.

A.R.W. Williams

Protein Kinase C
Edited by D.S. Lester & R.M. Epand, Chichester: Ellis Horwood, 1992, 365 pp. £59.00.

The discovery of the enzyme protein kinase C (PKC) in the late seventies and the finding that it is the receptor for phorbol ester tumour promoters and at the heart of processes mediating cellular proliferation and differentiation has led to the publication of several thousand papers on this enzyme during the last decade. In the case of a research areas as expansive and at times confusing as that associated with PKC it is beneficial to find editors and authors who are prepared to review the field with the intent to integrate existing evidence and to render it more easily digestible. David D. Lester and Richard M. Epand have undertaken the formidable task to do just that by editing a book which aims...