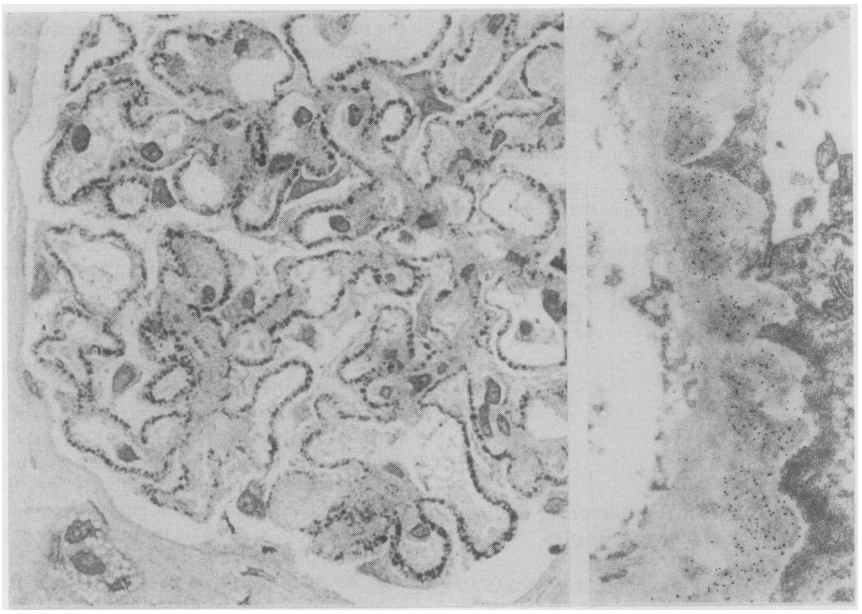
> 37·5°C and only two out of 25 patients had a leucocyte reaction of > 11·0 × 10^9/l during acute phase of thrombosis. Serum CRP did not rise in three cases out of the 19 (15·8%) patients in the iliofemoral group, and only one patient had a temperature of > 37·5°C or a leucocyte response of > 11·0 × 10^9/l. The sensitivity of serum CRP to show the presence of thrombosis was 72% (95% confidence interval 54 to 90%) in group 1 and 32% (12 to 52%) in group 2.

A recent study has proposed a 100% sensitivity of serum CRP for detecting deep venous thrombosis.[2] According to our results, deep lower limb venous thrombosis seems to elicit only a slight or even undetectable acute phase response. The serum CRP was normal in more than one third of the cases with the thrombosis in the tibial or popliteal veins and undetectable in about 16% of the cases of iliofemoral thrombosis. In our series the sensitivity of serum CRP was low in the cases with the thrombosis in the tibial or popliteal vein (32%), but clearly higher (77%) in the cases of iliofemoral thrombosis. Perhaps most cases had femoral or iliac vein thrombosis.[2] This could partly explain the differences between their results and ours. White cell leucocyte counts and axillary temperatures were usually normal in both of our groups. Thus deep lower limb thrombosis seems to be a weak inducer of the acute phase response and some other cause for induction of the acute phase response should be considered if serum CRP concentration is over 100 mg/l.

H SYRJÄLÄ
K HAUKIPURO
H KIVINIEMI
National Public Health Institue, Oulu, Department of Surgery, University of Oulu, Oulu, Department of Surgery, Oulu University Central Hospital, Oulu, Finland

1 International Committee for Standardization in Haematology (Expert Panel on Blood Rheology). Guidelines on selection of laboratory tests for monitoring the acute phase response. *J Clin Pathol* 1988;**41**:1203–12.
2 Thomas EA, Cobby MJD, Davies ER, Jeans WD, Whicher JT. Liquid crystal thermography and C reactive protein in the detection of deep venous thrombosis. *Br Med J* 1989; **299**:951–2.



Membranous nephropathy. Left side (IGSS) shows granular staining for IgG along thickened capillary walls; right side (IGS) shows labelling for IgG in subepithelial dense deposits.

Light and electron microscopic demonstration of immune deposits in renal tissue

Al-Nawab and Davies have clearly shown how renal biopsy specimens embedded in Lowicryl K4M can be used for immunogold staining at both light and electron microscopic levels.[1] We applied similar immunogold labelling, but used LR White resin because it is simpler and more rapid.

Renal tissue is fixed in 2% buffered formaldehyde for two hours at 4°C, rinsed in distilled water, and dehydrated in 70%, then 100% acetone, each for 30 minutes at 4°C. Infiltration with LR White (Hard) resin (London Resin Company, Basingstoke, Hampshire) is also done at 4°C for a minimum of three hours. Blocks are then embedded in TAAB polypropylene capsules surrounded by crushed ice, using 1·5 µl accelerator/ml resin, for a total of two hours. The low accelerator:resin ratio, also advocated by Newman and Hobot,[2] and heat sink are particularly important in limiting temperature rise during polymerisation so that crosslinkages are minimised and maximum antigenicity is retained.

The immunogold-silver (IGSS) and immunogold (IGS) staining methods used for 1–2 µm light microscopic or ultrathin electron microscopic sections are very similar to those described by Al-Nawab and Davies.

We have successfully shown immunoglobulin and complement C3 in appropriate patterns in a variety of glomerular diseases such as lupus nephritis, IgA nephropathy, and membranous nephropathy (figure). The Lowicryl method comprises nine procedural steps at −20 and −35°C, requires photopolymerisation, and lasts three to four days. The use of LR White resin has the major advantages of reducing the number of steps to five at 4°C and taking only eight hours.

AD MCKINNON
JG SIMPSON
Department of Pathology, University of Aberdeen, Foresterhill, Aberdeen AB9 2ZD

1 Al-Nawab MD, Davies DR. Light and electron microscopic demonstration of extracellular immunoglobulin deposition in renal tissue. *J Clin Pathol* 1989;**42**:1104–8.
2 Newman GR, Hobot JA. Modern acrylics for post-embedding immunostaining techniques. *J Histochem Cytochem* 1987;**35**:971–81.

BOOK REVIEWS

Cancer Growth and Progression. Vols 1–10. Series Editor: Hans E Kaiser. Kluwer Academic Publishers. 1988–89. £60 per volume.

To try to cover the whole of contemporary knowledge on cancer in a series of 10 books is an audacious project. Hans Kaiser has gathered together nine distinguished colleagues and has tried to do the impossible. There is much in these volumes that will be of relevance to those interested in the biology of human, animal, and plant neoplasia. It should be said at the outset that it is rather difficult to identify the target audience for this series, and that such a project is inevitably going to suffer from the staggering rate at which new data are generated and interpretations of old data change.

In the first volume (*Fundamental aspects of cancer*. RH Goldfarb, ed), Goldfarb and colleagues have reviewed much of the basic information regarding the biology of cancer seen in most standard texts. In this and in the other volumes some contributions are rather esoteric and some poorly written. For example, what does the sentence, "Phylogeny is the accumulation of many ontogenies in the sense of hologeny" mean? The mechanisms of carcinogenesis are reviewed in volume 2 (*Mechanisms of carcinogenesis*. EK Weisberger, ed) but it is inevitable that the rapidly moving field of molecular oncology has ensured that many of the chapters are already rather dated. The burgeoning field of antioncogenes and tumour suppressor genes is scarcely mentioned. In the third and fourth volumes (volume 3 *Influence of tumour development on the host*. LA Liotta, ed; volume 4, *Influence of the host on tumour development*. RB Herberman, ed), the interactions between host and tumour are considered. Liotta's review of the mechanisms of cancer invasion and metastasis is masterful, yet has recently been covered in many other reviews. Similarly, Nicholson's coverage of the tumour cell surface is admirable, but has also been covered elsewhere.

The major part of the fifth volume (volume 5, *Comparative aspects of tumour development*. HE Kaiser, ed) is devoted to comparisons of taxonomy and morphology in tumours from different species, including plants. There are fascinating accounts of tumours in molluscs, arthropods, patterns of spread in fish and amphibians, cancer in reptiles and detailed discussion of better known tumours such as

Marek's disease. Other chapters review exotic conditions including chemoreceptor tumours in laboratory and domestic animals. Although this volume contains a profusion of fascinating information, it is probably of little relevance to most tumour pathologists or those involved in cancer research. Nevertheless, it does represent a useful source of data on cancer in other species.

As with other volumes in this series the sixth (*Etiology of cancer in man,* AS Levine, ed) is well produced and thorough. Chapters on the role of Western culture (Burkitt) and of genetic factors (Purtilo *et al*) are followed by several chapters on breast cancer, a useful account of cancer in pregnancy, and discussions of treatment related tumours. Immune mechanisms are considered and there is a comprehensive account of secondary malignancies. As with the other volumes this is a pretty unbalanced account and much is superficial or not considered at all, while there is incredible detail in other areas. In volumes 7 and 8 (volume 7, *Local invasion and spread of cancer,* KW Brunson, ed; volume 8 *Metastasis and dissemination of tumours,* E Gorelik, ed) various aspects of cancer spread are discussed and there is some overlap between these volumes and topics covered in volumes 3 and 4. Both contain much useful information, and in particular, volume 8 has useful discussions of the patterns of metastasis in different human cancers. A further two volumes will soon be available and will be devoted to cancer management.

The books contain useful information but, unfortunately, are unbalanced, there is considerable duplication and in places they are already rather dated. At £60 a volume it is difficult to see who would buy such a series as much of the data in each volume would be found in most standard texts of cancer biology. They are for institutional libraries and wealthy departments, not individuals. Nevertheless, it should be said that most of us with an interest in cancer would find something of value in these volumes. They do have the merit of containing data and references on many more obscure areas of cancer biology and thus may be valuable to some, particularly those writing reviews.

PETER A HALL

Digestive Disease Pathology. Vol 1. Ed S Watanabe, M Wolff, SC Sommers. (Pp 229; £36.) Collier Macmillan. 1989. ISBN 0 02 424570 4.

This book consists of a rather dour collection of 10 monographs on gastrointestinal pathology. There is no introduction, preface, or foreword, and it is difficult to be certain who would buy such a book. There is heavy bias towards gastric cancer, immunopathology, and neuroendocrine pathophysiology: six of the chapters have a combination of poor English; and repetitive texts and overkill in illustrations makes for laborious reading, which is only occasionally brightened by the introduction of unfamiliar words and phrases such as "papillarily" and "bottom-layered." None of the chapters can be considered contemporary as references beyond 1985 are conspicuous by their absence. The gut lymphoma chapter by Meijer and his colleagues is particularly disappointing in this respect as much of the recent conceptual debate about these tumours subsequent to recent immunohistochemical and molecular biological evidence is not included.

The book is relatively cheap, but even so I could not recommend it to practising pathologists: much of the information it contains can be readily accessed in other texts, probably with more contemporary references.

NA SHEPHERD

The ABC's of LIS: Computerizing your Laboratory Information System. FR Elevitch, RD Aller. (Pp 311; soft cover $49.00.) Raven Press. 1989. ISBN 0-89189-223-0.

A pathologist working in the United Kingdom who is trapped in that outer circle of hell known only to those trying to implement a laboratory computer system in the NHS of 1990, will feel like St Augustine's sparrow when he reads this book. For a few hours he will be transported from a chaotic outer darkness where he is buffeted by insensate forces, including data processing departments, whose interests are rarely congruent with those of their supposed clients, into an environment filled with warmth, light, and intelligence. This didactic text, written by two experienced clinical pathologists, will guide the pathologist of whatever discipline through the complete cycle of acquiring, implementing, and operating a laboratory computer system. The neophyte will be painlessly taken through the tasks that have to be accomplished in planning, designing, justifying, selecting, implementing, operating, and updating a laboratory data management system. The authors write for those practising in the North American market, but many of the issues they address have a dreadfully familiar flavour as the United Kingdom enters the post-White Paper era.

I cannot recommend this book too highly. It would be worth buying it only for Appendix 4, a questionnaire to be filled in by prospective suppliers of a system. My advice is to buy three copies; keep one for yourself, give one to your most senior MLSO, and assume that the one you lend to the district computer manager won't come back.

A R W FORREST

Gastrointestinal pathology. An Atlas and Text. CM Fenoglio-Preiser, PE Lantz, MB Listrom, M Davis, FD Rilke. (Pp 906; 250 slides of illustrations; $281.) Raven Press. 1989. ISBN 0-89167-525-3.

This is undoubtedly an impressive publication. As an atlas it works very well and includes many splendid colour photographs, both macroscopic and microscopic, the latter being only marginally the less effective. The diagrams and radiographs are equally good. The text, however, is somewhat variable, both in terms of content and quality, and suffers a little from being dislocated in places from the illustrations. There are also quite numerous faults albeit usually of a minor nature. On the other hand, the text is richly supplemented by some excellent tables and it is hard to find any serious omissions: indeed in terms of its scope it would be hard to match. All the same as a reference book it will be valued less for its textual descriptions than for its visual presentations which will unquestionably prove to be of immense value not only to pathologists but to many other specialists seeking to acquire a comprehensive perception of gastrointestinal and oesophageal disease.

F D LEE

Antimicrobial Chemotherapy. 2nd ed. Ed D Greenwood. (Pp 372; £20.) Oxford University Press. 1989. ISBN 0-19-261817-2.

This volume represents the revised version of the antibiotic gospel according to Queen's Medical Centre Nottingham, where the authors perform their "Trivial Pursuits". Does this detract from the value of the book? Probably not, but their inbuilt bias in the choice of an injectable cephalosporin shines through. The text is based on a six week optional course for Nottingham medical students during their third year and is therefore aimed at other medical students. Junior doctors would be well advised to read it in order to improve their prescribing habits before acquiring those of their mentors. The volume is divided into five parts – general properties of antimicrobial agents, laboratory aspects, resistance problems, general principles of usage, and their therapeutic use. This latter section discusses selected areas of infection in depth. Details of dosage regimens have been omitted. The British reader is therefore recommended to use the *British National Formulary*, an invaluable source of information on dosages, side effects and, especially in these days of the White Paper, the cost of drugs. The best chapter is left until last – a postscript on the development and marketing of antibiotics. Professor Greenwood welcomes constructive suggestions to improve subsequent editions – mine would be to put this chapter first.

R C SPENCER

Principles and Applications of Laboratory Instrumentation. S Narayanan. (Pp 232; $54.50.) Raven Press. 1989. ISBN 0-89189-273-7.

This handy paperback is ideal for entrants to laboratory medicine such as technical staff, scientists, and junior doctors. It is well written and produced and the clarity of the style and English make it a pleasure to read. In 20 chapters covering topics from basic spectrophotometry to DNA probes, techniques such as electrometry, fluorimetry, and chromatography, to name a few, are described. Formulae and diagrams illustrating the techniques are given and each chapter ends with references for further reading. Though generally excellent, the book has a few flaws. The title is misleading since the instrumentation described is predominantly for chemical analyses; other disciplines are scarcely featured. In spite of the inclusion of some recent techniques, the flavour of the book is a little dated. Thus spectrophotometry, continuous flow analysis, and