the interlaboratory variation includes both random variation and systematic differences, the latter is by far the predominating factor.[3,4] The origin of the systematic differences is to be found in the test procedures used by the individual laboratories. The test procedures include the techniques for determination of the clotting end point. It has been shown that coagulometers influence the PT ratio and hence the ISI. The ISI recommended by the manufacturer may not apply to all instruments used by the NEQAS participants. Although laboratories used the same thromboplastin, they used different techniques for determining the PT ratio (PR). Consequently, the CV(PR) is not only determined by the reagent, but also by the techniques and the individual laboratories using them. In conclusion, the difference in CV(INR) obtained by Taberner and colleagues should not be attributed to the different reagents alone, but may also be explained in part by different test procedures.

In my opinion, a fair comparison of thromboplastin reagents can be performed only if the reagents are tested by the same laboratories using the same procedures.

AMHP VAN DEN BESSELAAR
Thrombosis and Haemostasis Research Unit, Department of Haematology, University Hospital of Leiden, The Netherlands

References

1 Tabener DA, Poller L, Thomson JM, *et al.* Effect of international sensitivity index (ISI) of thromboplastins on provision of international normalised ratios (INR). *J Clin Pathol* 1989;**42**:92–6.
2 Loeliger EA, Van den Besselaar AMHP, Lewis SM. Reliability and clinical impact of the normalization of the prothrombin times in oral anticoagulant control. *Thromb Haemostas* 1985;**53**:148–54.
3 Goguel A, Houbouyan LL, Roussi JH. Coagulation quality control surveys in France. *Scand J Haematol* 1980;**25**(suppl 37): 150–2.
4 Van Dijk-Wierda CA, Van den Besselaar AMHP, Loeliger EA. Quality control of prothrombin time determinations in The Netherlands. *Scand J Haematol* 1980;**25** (suppl 37):153–5.

Dr Taberner comments:

Dr van den Besselaar states that the formula: CV(INR) = CV(PR) × ISI did not take into account the CV(ISI). We agree, but the report showed that using the cumulative data from the UK NEQAS exercises, the simple formula successfully predicted the difference between the CV(PR) and CV(INR). There is therefore no need to take into account the additional component of the CV(ISI). The biological variation between individual anticoagulated patients' results is, however, largely reflected in the PR. The view that systematic differences influence the PT ratio is supported and elaborated in the final paragraph of the paper as follows:

"Overall precision in PT testing with a reagent is affected by factors other than the ISI. For instance, the stability of the reagent, interbatch variation, and methods of end point detection may have a direct influence."

Nevertheless, the differences between the CV(PR) and CV(INR) seem to be largely explained by the ISI. Therefore, on the present evidence, the ISI must be regarded as an important influence on the precision of the INR. As shown in our accompanying paper, automation may affect the slope of the regression line and hence the ISI.[1] The differences introduced by coagulometers are small in comparison with the effect of the wide range of ISI values for thromboplastins in current use.

Finally, it was not our objective to assess thromboplastin reagents but to elucidate the basic principle of the importance of a low ISI thromboplastin for the precision of the INR. An important factor in the latter, as Dr van den Besselaar suggests, is the precision of the PR on which the INR is based.

Reference

1 Poller L, Thomson JM, Taberner DA. Effect of automation on prothrombin time test in NEQAS surveys. *J Clin Pathol* 1989;**42**: 97–100.

Book reviews

Molecular Basis of Inherited Disease. In Focus. KE Davies, AP Read. (Pp 87; softbound £5.95.) IRL Press. 1988. ISBN 1 85221 073 7.

My suspicions deepen that students of today are brighter than those of two decades or more ago. This slim handbook confidently zips along at a pace which current undergraduates may find a simple jog but which surreptitious mature "students" who are looking for a simple text to help them finally understand all this molecular genetics business will find exhausting. If you do not know what an open reading frame observed during DNA sequencing studies is all about you will trip up on line 8 of page 1. Picking yourself up, there are several stumbles ahead unless the field is at least partly familiar. The PCR technique is described in a diagram; hardly enough unless you understand it already, and in some of the diagrams the contrasting light pink colour of the two-tone scheme is barely visible. To be fair, the jacket indicates that the book is designed to complement course work. As a way of consolidating what someone has already explained in class or extending and updating a simpler introductory review it would be excellent.

JS LILLEYMAN

Making Monoclonals. DG Newell, BW McBride, SA Clark. (Pp 93; paperback £10 (inc postage.)) PHLS Supplies, 61 Colindale Avenue, London NW9 5DF. 1988. ISBN 0-901144-23-1.

This book sets out to provide a detailed guide to the production of monoclonal antibodies. It will appeal to the laboratory worker with little experience in this area. For such an individual, the text could prove to be indispensable as it covers many of the pitfalls that might be encountered in antibody production. Whilst there is obviously no substitute for being taught a laboratory technique "at the bench", books such as this can go a long way to guiding an inexperienced person into the field.

Every aspect of antibody production is covered and the authors are to be complemented on their thorough approach to the subject. The text is well written and the layout of the book makes it easy to obtain information relating to different aspects of antibody production. A very good buy for those wishing to set up a hybridoma facility who do not have access to groups that can supply the practical experience detailed in the book.

JT KEMSHEAD

The Kidney in Plasma Cell Dyscrasias. Eds. L Minetti, G D'Amico, C Ponticelli. (Pp 304; £60·95.) Kluwer Academic Publishers Group. 1988. ISBN 0 89838 385 4.

This book consists of a collection of short and concise papers prepared by many of the leading workers in myeloma, amyloid, and

light chain nephropathies. It is divided into four sections: the plasma cell abnormality; light chain formation and amyloidogenesis; turbo-interstitial injury by light chains in man and animals; clinical and pathological features of renal disease; and finally, treatment of myeloma-related kidney disease. Each section is completed by a rather disjointed "round-table" discussion. The whole book is given a conclusion by Professor J S Cameron, who has done much of the reviewer's work for him by pointing out the interesting developments and the notable deficiencies in this series of presentations.

This is an extremely useful small volume which condenses much of the current thinking on these diseases into 300 pages. There is not a lot that is new in this volume but it is helpful to have access to all these articles in a single cover. The references are up to date (1987) and the collection is presumably a report of a meeting at which the various authors were participants. It will be a useful and important book for renal units. It deserves to be read by haematologists, immunologists, and oncologists and it should help them to realise that they should be referring their patients with these problems for specialist investigation and management.

AG MACIVER

Notices

Workshop in Dermatopathology

January 18–20, 1990

Sheraton Grande at Torrey Pines
La Jolla, California, USA

Sponsored by: Division of Dermatopathology, Department of Pathology, Scripps Clinic and Research Foundation, 10666 North Torrey Pines Road, La Jolla, California 92037, USA

For information and priority registration, contact: Bonny A Mower, Conference Coordinator, Department of Academic Affairs, Scripps Clinic and Research Foundation, Tel (619) 554-8556

Dermatopathology Self-Assessment Workshop

Guy's Hospital, London

Friday April 20 1990

This course is designed for both pathologists and dermatologists and should be of interest to registrars studying for postgraduate qualifications, as well as established consultants. We anticipate that participants will already have a working knowledge of dermatopathology, but aim to concentrate on material encountered in routine laboratory work rather than the esoteric.

The registration fee of £45.00 covers the working sessions, lunch, and coffee breaks.

For further information and registration forms please contact Miss M Ellis (secretary), Department of Dermatology, Guy's Hospital, St Thomas Street, London SE1 9RT. Tel (01) 955 5000 ex 3821/3822.

6th International Congress on Breast Diseases

June 10–14, 1990

Hynes Convention Center, Boston, Mass, USA

Organised by: The Society for the Study of Breast Disease

Sponsored by: The International Society of Senology and American Cancer Society

Invited faculty include: Bernard Fisher, MD; Judah Folkman, MD; Robert Hutter, MD; Gabriel Hortobagyi, MD

For further information contact: Congress Secretariat, Office of Continuing Education, Tufts University School of Medicine, 136 Harrison Avenue, Box 36, Boston, MA 02111. Phone 617-956-5657 or Fax 617-956-0314.

European Society for Analytical Cellular Pathology

There is an increasing need for improved fundamental knowledge in cellular pathology. Whatever the approach to achieve this, quantitative and analytical methods are required for the measurement and identification of normal and pathological states of cells and tissues. Cell and tissue analysis is thus of interest to a wide spectrum of research workers and clinicians in genetics, cell biology, immunology, haematology, oncology, histopathology and cytopathology. The methods of measurement and data analysis are, to an increasing extent, computer based, and frequently depend on complex technology and sophisticated mathematical methods. The development and application of these methods require the collaboration of many different professional disciplines.

European efforts in these fields can be strengthened, coordinated and made more effective by the foundation of a society covering this field. To this end the European Society for Analytical Cellular Pathology (ESACP) was founded in 1988.

- The aims of the society are to advance the scientific understanding and clinical application of quantitative and analytical cellular biology with emphasis on pathological cellular changes, and to promote technical developments in this field.
- The society edits its own journal, *Analytical Cellular Pathology* (ACP), published by Elsevier. The first issue appeared at the beginning of 1988.
- The officers of ESACP are: P Vooijs, Nijmegen (president); B Stenkvist, Stockholm (vice president); G Burger, Munich (secretary); M Oberholzer, Basel (treasurer); G Brugal, Grenoble (editor in chief of ACP).
- Further details of the society can be obtained from: Secretariat office, G Burger, GSF-Cytometry, Ingolstädter Landstr 1, D-8042 Neuherberg, FRG.