

- Crowle, A. J. (1961). *Immunodiffusion*, ch. 4. Academic Press, New York.
- Derrien, Y., Michel, R., and Roche, J. (1948). *Biochim. biophys. Acta (Amst.)*, **2**, 454.
- Doniach, D., and Roitt, I. M. (1963). In *Clinical Aspects of Immunology*, edited by P. G. H. Gell and R. R. A. Coombs, pp. 611-632. Blackwell, Oxford.
- Feinberg, J. G. (1962). *Nature (Lond.)*, **194**, 307.
- (1963). *J. clin. Path.*, **16**, 282.
- Fulthorpe, A. J., Roitt, I. M., Doniach, D., and Couchman, K. (1961). *Ibid.* **14**, 654.
- Goldin, M., and McMillen, S. (1963). *Amer. Rev. resp. Dis.*, **87**, 592.
- Goudie, R. B., Anderson, J. R., and Gray, K. G. (1959). *Immunology*, **2**, 309.
- , —, —, Clark, D. H., Murray, I. P. C., and McNichol, G. P. (1957). *Lancet*, **2**, 976.
- Hutchison, J. G. P. (1962). *J. clin. Path.*, **15**, 185.
- Mansi, W. (1958). *Nature (Lond.)*, **181**, 1289.
- May, J. R., and Rawlins, G. A. (1962). *J. clin. Path.*, **15**, 186.
- Moore, J. M. (1961). *Ibid.*, **14**, 533.
- Rawstron, J. R., and Farthing, C. P. (1962). *Ibid.*, **15**, 153.
- Roitt, I. M., and Doniach, D. (1960). *Brit. med. Bull.*, **16**, 152.
- Schubert, J. H., Lynch, H. J. Jr., and Ajello, L. (1961). *Amer. Rev. resp. Dis.*, **84**, 845.
- Smart, G. A., and Owen, S. G. (1960). *Postgrad. med. J.*, **36**, 442.
- Wadsworth, C. (1957). *Int. Arch. Allergy*, **10**, 355.

The March 1964 Issue

THE MARCH 1964 ISSUE CONTAINS THE FOLLOWING PAPERS

- Urinary tract infections due to coagulase-negative staphylococci R. G. MITCHELL
- A report of three strains of *Pasteurella septica* isolated in Hong Kong PUI-CHING WONG and C. H. CHAN-TEOH
- Estimation of serum *L. casei* activity I. CHANARIN and VALERIE BERRY
- Virus culture studies in non-gonococcal urethritis R. S. MORTON, E. H. GILLESPIE, and M. A. WILSON
- Beta-galactosidase and lactose fermentation in the identification of enterobacteria including salmonellae S. P. LAPAGE and M. S. JAYARAMAN
- Pseudomonas pyocyanea* and the arginine dihydrolase system J. J. TAYLOR and J. L. WHITBY
- Survey on prevacuum high-pressure steam sterilizers E. M. DARMADY, S. E. DREWETT, and K. E. A. HUGHES
- Congenital malignant neurilemmoma The late MARTIN BODIAN and ANDREW W. WILKINSON
- Congenital hepatic fibrosis with an unusual pulmonary lesion ROGER WILLIAMS, PETER J. SCHEUER, and BRIAN E. HEARD
- Analysis of 'native' cerebrospinal fluid by the polyacrylamide disc electrophoresis technique V. R. CUNNINGHAM
- Serum aspartate and alanine transaminase levels in workers exposed to lead H. A. WALDRON
- Estimation of alpha-amino nitrogen in plasma and urine by the colorimetric ninhydrin reaction D. M. MATTHEWS, G. G. MUIR, and D. N. BARON
- The 5 g. *d*-xylose absorption test R. A. JOSKE and L. J. HAAGENSEN
- Serum bile acid levels in hypercholesterolaemic patients E. C. OSBORN and I. D. P. WOOTTON
- The impurity of radioiodinated triolein J. A. KENNEDY and J. D. KINLOCH
- An improved method for the simple and accurate colorimetric determination of urea with Ehrlich's reagent H. YATZIDIS, M. GARIDI, C. VASSILIKOS, D. MAYOPOULOU, and A. AKILAS
- Folic acid and vitamin B₁₂ levels in pregnancy and their relation to megaloblastic anaemia E. W. BALL and C. GILES
- A standard clot method for the assay of plasminogen activators, anti-activators, and plasmin CHRISTINE M. HAWKEY and J. L. STAFFORD
- Initial experience with Thrombotest A. L. MILLER, G. FARRER-BROWN, and J. PETHER
- Phagocytosis in normal and anaemic blood ALLAN JACOBS
- 'Thrombocytopenic serum': an artificial factor VIII-deficient reagent E. DAVIDSON and S. TOMLIN
- A useful photometric test for the diagnosis of Von Willebrand's disease H. VAINER and J. P. CAEN with the technical assistance of D. CHATELAIN and H. MICHEL
- Technical methods*
- An instrument for recording the lysis time of fibrin clots R. L. NEWMAN
- The preservation of agar gel electropherograms R. H. KNIGHT and K. C. HUMPHREYS
- Association of Clinical Pathologists: 71st General Meeting
- Book reviews

Copies are still available and may be obtained from the PUBLISHING MANAGER,

BRITISH MEDICAL ASSOCIATION, TAVISTOCK SQUARE, W.C.1., price 18s. 6d.

- Dische, F. E., and Benfield, V. (1959). *Ibid.*, 21, 257.
- Fearnley, G. R., Balmforth, G., and Fearnley, E. (1957). *Clin. Sci.*, 16, 645.
- Fletcher, A. P., Alkjaersig, N., and Sherry, S. (1959a). *J. clin. Invest.*, 38, 1096.
- , —, — (1959b). *J. clin. Invest.*, 38, 1005. (Abst.)
- Flute, P. T. (1960). *Proc. 7th Congr. europ. Soc. Haemat.*, London, 1960, part 2, p. 894.
- Hawkey, C. M., and Howell, M. B. (1964). *J. clin. Path.*, 17, 363.
- , and Stafford, J. L. (1964). *Ibid.*, 17, 175.
- Howell, M. B. (1963). *Ibid.*, 16, 289.
- Johnson, A. J., and McCarty, W. R. (1959). *J. clin. Invest.*, 38, 1627.
- Niewiarowski, S., and Kowalski, E. (1958). *Rev. Hémat.*, 13, 320.
- Nilsson, I. M., and Olow, B. (1962a). *Thrombos. Diathes. haemorrh. (Stuttg.)*, 8, 297.
- , — (1962b). *Acta chir. scand.*, 123, 247.
- Quick, A. J. (1957). *Hemorrhagic Diseases*, p. 379. Kimpton, London.
- Ratnoff, O. D., and Menzie, C. (1951). *J. Lab. clin. Med.*, 37, 316.
- Remmert, L. F., and Cohen, P. P. (1949). *J. biol. Chem.*, 181, 431.
- Stefanini, M. (1951). *Lancet*, 1, 606.
- Tillett, W. S., Johnson, A. J., and McCarty, W. R. (1955). *J. clin. Invest.*, 34, 169.
- Wolf, P. (1953). *J. clin. Path.*, 6, 34.
- (1961). Personal communication.

Broadsheets prepared by the Association of Clinical Pathologists

The following broadsheets (new series) are published by the Association of Clinical Pathologists. They may be obtained from Dr. R. B. H. Tierney, Pathological Laboratory, Boutport Street, Barnstaple, N. Devon. The prices include postage, but airmail will be charged extra.

- | | |
|--|--|
| 3 The Detection of Barbiturates in Blood, Cerebrospinal Fluid, Urine, and Stomach Contents. 1953. L. C. NICKOLLS. 1s. | 33 The Laboratory Detection of Abnormal Haemoglobins. 1961. H. LEHMANN and J. A. M. AGER. 4s. |
| 4 The Estimation of Carbon Monoxide in Blood. 1953. D. A. STANLEY. 1s. | 34 Titration of Antistreptolysin O. 1961. H. GOODER and R. E. O. WILLIAMS. 2s. |
| 13 The Identification of Serotypes of <i>Escherichia coli</i> Associated with Infantile Gastro-enteritis. 1956. JOAN TAYLOR. 1s. | 35 The Estimation of Faecal 'Urobilinogen'. 1961. C. H. GRAY. 2s. |
| 16 Preservation of Pathological Museum Specimens. 1957. L. W. PROGER. 1s. | 36 Quantitative Determination of Porphobilinogen and Porphyrins in Urine and Faeces. 1961. C. RIMINGTON. 3s. 6d. |
| 17 Cultural Diagnosis of Whooping-cough. 1957. B. W. LACEY. 1s. | 37 The Paper Electrophoresis of Serum and Urinary Proteins. 1961. G. FRANGLÉN and N. H. MARTIN. 4s. |
| 20 Investigation of Porphyrin/Porphyruria. 1958 (reprinted 1962). C. RIMINGTON. 2s. | 38 The Augmented Histamine Gastric Function Test. 1961. M. LUBRAN. 2s. |
| 23 The Dried Disc Technique for Bacterial Sensitivity Tests. 1959. R. W. FAIRBROTHER and J. C. SHERRIS. 1s. | 39 Investigation of Haemolytic Anaemia. 1961. J. G. SELWYN. 2s. |
| 24 Safe Handling of Radioactive Tissues in the Laboratory and Post-mortem Room. 1959. R. C. CURRAN. 1s. | 40 Short-term Preservation of Bacterial Cultures. 1962. E. JOAN STOKES. 2s. |
| 26 The Periodic Acid-Schiff Reaction. 1959. A. G. E. PEARSE. 1s. | 41 Serological Tests for Syphilis. 1962. A. E. WILKINSON. 6s. |
| 28 Daily Fatty Acid Excretion. 1960. A. C. FRAZER. 2s. | 42 The Determination of Glucose 6-Phosphate Dehydrogenase in Red Cells. 1962. T. A. J. PRANKERD. 2s. |
| 29 The Preparation of Bone for Diagnostic Histology. 1960. D. H. COLLINS. 2s. | 43 Mycological Techniques. 1962. R. W. RIDDELL. 3s. 6d. |
| 30 Control of Accuracy in Chemical Pathology. 1961. G. H. GRANT. 4s. | 44 The Laboratory Investigation of Catecholamine Secreting Tumours. 1963. M. SANDLER and C. R. J. RUTHVEN. 2s. |
| 31 Investigation of Haemorrhagic States with Special Reference to Defects of Coagulation of the Blood. 1961. E. K. BLACKBURN. 4s. | 45 Diagnostic Test for Hereditary Galactosaemia. 1963. V. SCHWARZ. 2s. |
| 32 Detection of Resistance to Streptomycin, P.A.S., and Isoniazid in Tubercle Bacilli. 1961. R. CRUICKSHANK and S. M. STEWART. 2s. | 46 The Determination of Serum Iron and Total Iron Binding Capacity. 1963. A. JORDAN and D. A. PODMORE. 2s. |

TABLE I

COMPARISON OF RESULTS FOR ALKALINE PHOSPHATASE DETERMINATION BY THE ANALYZER AND BY THE METHOD OF KING AND WOOTTON (1956)

Alkaline Phosphatase (K.-A. units)

No.	Analyzer	Manual
1	47	51
2	52	52
3	7	8
4	22	20
5	104	106
6	26	24
7	13	14
8	31	32
9	13	13
10	14	12
11	9	8
12	11	12

between alkaline phosphatase determinations carried out on the Analyzer, and by hand by the method of King and Wootton (1956).

REFERENCE

King, E. J., and Wootton, I. D. P. (1956). *Micro-analysis in Medical Biochemistry*, p. 85. Churchill, London.

NOTICE

BRITISH COMMITTEE FOR STANDARDS IN HAEMATOLOGY

This Committee has been established by the British Society for Haematology at the invitation of the European Society of Haematology and will work in collaboration with the International (European) Haematology Standardization Committee to encourage the adoption of recommended standards in Britain and to participate in international discussions on standardization. Various professional and trade organizations are represented and the Committee will cooperate with the British Standards Institution. As with the European Standardization Committee expert panels are being convened and will first be concerned with haemoglobinometry, erythrocytometry, haematocrit, normal values, and documentation of haematological data. These topics will be discussed during the Congress of the International Society of Haematology to be held in Stockholm in September 1964.

The Committee's secretariat consists of Dr. S. M. Lewis (Chairman), Dr. A. A. Sharp, and Dr. J. W. Stewart. Further information can be obtained from Dr. S. M. Lewis, Department of Haematology, Post-graduate Medical School, Ducane Road, London W.12.

Book reviews

AN INTRODUCTION TO COMPARATIVE PATHOLOGY By G. A. Gresham and A. R. Jennings. (Pp. xi + 412; 116 figures. 84s.) London and New York: Academic Press Inc. 1962.

The science of pathology originated in the practical study of disease in the human species; this was soon extended to the experimental study of the laboratory animals, but it is only in recent years that the wider interests of disease in animals living in natural surroundings and of disease in phyla other than the vertebrates have received any attention. The theoretical and practical value of this broader concept of pathological studies needs little advocacy, but it is a different problem to bring it within the compass of what pathologists can be expected to learn, when their professional life will be concentrated either on man or on the relatively few species of economic importance. This introduction, written by two pathologists who have done distinguished work in human and animal pathology respectively, is a bold attempt to provide at least a key to what is going on. The format and illustrations are of a high standard and there are few slips.

The authors have perhaps not decided clearly enough on the audience to which they are directing their writing. Some of the material is covered at too elementary a level, too naïvely (is it necessary to point out that fogs are worst for those with pre-existing disease of the respiratory system?) or with too much trivial detail for the senior qualified pathologist, who would prefer a greater emphasis on the comparisons; on the other hand it is doubtful if the elementary student who is not, for example completely familiar with the fundamental genetics of pp. 11-12 or the outline of helminthology of pp. 184-6, is ready to profit much from contemplating the tracheal granulomas of *Filaroides osleri* on the same page as the neoplasma.

Economy by the excision of the elementary matter, and of sentences derived from the lecture ('we shall now consider . . .') would make room for some facets which the reviewer expected to find discussed but are not in fact touched on. Principal among them is the ecological angle of the distribution and kinds of disease found in wild populations—little enough known, but fascinating and important. The wide cover of pathological investigations provided by the zoological gardens in numerous species of animals, notably by Fiennes and his colleagues in London, has not been made use of, even in the discussion of atheroma, which is unexpectedly brief. In view of the present importance of the concept of auto-immune disease, the two brief references indicated in the index are inadequate, and though there is a chapter on 'diseases in which hypersensitivity plays a part', the juxtaposition of tuberculosis and the collagen diseases, without any general survey of the principles, and the closely-written paragraphs on the blood, thyroid, encephalitic, and amyloid auto-immunity, will prove very hard reading for

those without wide clinical and in particular human experience. The index has the air of having been compiled from the print without insight into the use to be made of it, as the indication opposite 'auto-immune disease' suggests.

The sub-title perhaps gives a fairer picture of the scope of the book. In this narrower orbit, the book is full of a wide variety of illustrative material, much of it new and unexpectedly fresh to a reader who has studied mainly human pathology, and there is no doubt that no one can read the book without learning a great deal; there are some points with which the reviewer would differ: the new tissue in amino-nitrile poisoning outside the bone is new bone, not fibrous, and (from the comparative angle) it is interesting that it happens much less readily in the mouse than in the rat; 'demineralisation' is a dangerous term to use in bone disease; the explanation of 'teratoma' as 'monstrous tumour' is obscure and open to misinterpretation. There is also some doubt whether the relatively complex treatment and wide previous knowledge of human clinical conditions presumed in the reader will not prove too much for the 'students of zoology and related subjects' who are invited on the dust-cover to make use of the book. There is room for an introduction to the general biological problem of disease suitable for all biologists, and in spite of these minor points of criticism and perhaps of an over-polished and expensive production, this volume goes a long way to providing it. It is not the definitive text-book on the subject that we may hope the authors will come to provide, but it is an introductory essay that can be read with pleasure and profit. The stimulus to wider study which is provided by the mention of the rare and curious is of as much value as the reminder that pathology like some other sciences has been too long centred on the human animal.

JOHN W. LANDELLS

PRactical CLINICAL BIOCHEMISTRY, 3rd ed. By Harold Varley. (Pp. viii + 689; 83 figures; 31 tables. 50s.) London: William Heinemann. 1962.

This is the third edition of a valuable collection of methods. In a subsequent edition more emphasis might be laid on the control of accuracy and some recommendations might be varied: for example, permitted variations in the results on a control specimen are not best stated as a percentage of the result. Another matter to which no attention has been paid is the introduction of automation into the chemical pathological laboratory. There is little or no mention of the use of automatic devices in the laboratory. There are some names which are still mis-spelt as they were in the first and second editions. In spite of these criticisms the methods are well described and the book is a necessity for any laboratory carrying out chemical pathological determinations.

ARTHUR JORDAN

BLOOD VOLUME DYNAMICS By H. A. Davis. (Pp. xiii + 146; 56 tables; 3 figures. \$7.00.) Springfield Illinois: Charles C. Thomas. 1962.

This book has the subtitle 'Studies in Surgical Disease'. It consists of a review of the blood volume (especially in relation to height and weight) and of the regulation and the effects of variations of the blood volume. This is followed by a consideration of blood volume changes in a number of surgical conditions and concludes with useful details of methods. The chief value of the book lies in the record of findings, both by the author and by other workers; there is not much attempt to refer observations back to basic physiology. Nevertheless, blood volume changes are more important than is generally realized, especially in relation to water and electrolyte disturbances, and there must be few clinical pathologists and surgeons who would not benefit by carefully reading this book.

ARTHUR JORDAN

The College of Pathologists

EXEMPTION FROM PRIMARY EXAMINATION Applications for exemption will not be considered after 31 December 1964.

FOUNDER MEMBERSHIP AND FOUNDER FELLOWSHIP Admission to Founder Membership and Founder Fellowship will cease on 12 July 1964. Those holding consultant appointments in pathology, or appointments of similar status, should apply as soon as possible to the Registrar.

MEMBERSHIP WITHOUT EXAMINATION Applications from medically qualified pathologists attaining consultant status or its equivalent will continue to be considered until 25 April 1966.

FINAL EXAMINATION The first final examination will be held during October/November 1964. Two three-hour written papers will be held on Wednesday 7 October and the practical examinations will be held during the first half of November.

The closing date for entry to this examination will be 31 August 1964.

Application forms for the above should be obtained from the Registrar, The College of Pathologists, 12 Grosvenor Crescent, London S.W.1.

T. CRAWFORD,
Registrar.

LIST OF PARTICIPANTS

- ANNE BRUCE, The Children's Hospital, Sheffield
 M. BUCKELL, Atkinson Morley Hospital, Wimbledon
 J. CAMPBELL, Broadgreen Hospital, Liverpool
 D. CARMICHAEL, The London Hospital
 R. CHAKRABARTI, Gloucestershire Royal Hospital, Gloucester
 H. M. T. COLES, Queen Mary's Hospital, Carshalton
 L. CROME, Queen Mary's Hospital, Carshalton
 R. B. CROSBIE, Broadgreen Hospital, Liverpool
 A. DARRAGH, Leo Laboratories, London
 W. M. DAVIDSON, King's College Hospital, London
 H. A. DEWAR, Royal Victoria Infirmary, Newcastle-upon-Tyne
 A. A. DONALDSON, Western General Hospital, Edinburgh
 ANNE DUBBER, Royal Infirmary, Glasgow
 N. EDWARD, Royal Infirmary, Aberdeen
 J. L. EMERY, Children's Hospital, Sheffield
 M. ERDOHAZI, Queen Mary's Hospital, Carshalton
 G. R. FEARNLEY, Gloucestershire Royal Hospital, Gloucester
 P. T. FLUTE, Kings' College Hospital, London
 D. M. FORREST, Queen Mary's Hospital, Carshalton
 T. FREEMAN, National Institute of Medical Research, London
 F. J. GILLINGHAM, Royal Infirmary, Edinburgh
 J. M. GOODHART, Royal Victoria Infirmary, Newcastle-upon-Tyne
 J. GREEN, Paddington General Hospital, London
 S. HANRATTY, National Blood Transfusion Association, Dublin
 C. HAWKEY, St. George's Hospital, London
 J. L. HAYWARD, Guy's Hospital, London
 R. H. HERBERTSON, Leo Laboratories, London
 MARGARET HOWELL, St. George's Hospital, London
 I. JACOBSON, Western General Hospital, Edinburgh
 D. C. O. JAMES, Westminster Hospital, London
 KALPAKTSOGLU, Children's Hospital, Sheffield
 C. H. LACK, Royal National Orthopaedic Hospital, London
 H. LEGRICE, Croydon Eye Unit, Croydon
 J. LORBER, Children's Hospital, Sheffield
 I. LYNN EVANS, Paddington General Hospital, London
 R. G. MACFARLANE, Churchill Hospital, Oxford
 M. MACKAY, The Lister Institute, Elstree
 I. MACKENZIE, Guy's Hospital, London
 G. P. MCNICOL, Royal Infirmary, Glasgow
 R. L. NEWMAN, Queen Mary's Hospital, Carshalton
 H. H. NIXON, Queen Mary's Hospital, Carshalton
 J. O'BRIEN, Portsmouth Pathological Service
 E. W. PARRY, Broadgreen Hospital, Liverpool
 H. PEETERS, St. Jan's Hospital, Bruges, Belgium
 D. PIERSE, Croydon Eye Unit, Croydon
 J. PLOUG, Leo Laboratories, Copenhagen
 N. J. ROTHNIE, St. Bartholomew's Hospital, London
 D. A. SHAW, National Hospital, London
 E. SIMPSON, Queen Mary's Hospital, Carshalton
 L. SINCLAIR, Westminster Children's Hospital, London
 W. SNEDDON WATSON, Royal Infirmary, Edinburgh
 J. STERN, Queen Mary's Hospital, Carshalton
 G. T. STEWART, Queen Mary's Hospital, Carshalton
 H. B. STONER, Medical Research Council Laboratories, Carshalton
 W. B. THOMSON, Amersham General Hospital, Amersham
 K. TILL, Hospital for Sick Children, London
 A. S. TODD, Royal Infirmary, Dundee
 M. TSAPOGAS, King's College Hospital, London

SECOND FIBRINOLYSIS WORKSHOP

Contents

- Fibrinolysis *Edited by G. R. FEARNLEY*.....page 305
 Measurement of spontaneous fibrinolytic activity G. R. FEARNLEY.....page 307
 A method for assessing clot lysis MARGARET HOWELL.....page 310
 A method for detecting and estimating plasminogen in cerebrospinal fluid R. L. NEWMAN.....page 313
 Heparin fractionation in the study of lytic activity J. GREEN.....page 316
 A rapid and simple method for estimating fibrinogen N. G. ROTHNIE.....page 319
 Ultrasonic measurement of coagulation and fibrinolysis H. PEETERS, G. STEENHOUDT, and G. DECROIX.....page 320
 Some topographical observations on fibrinolysis A. S. TODD.....page 324
 Pharmacological enhancement of fibrinolytic activity of blood G. R. FEARNLEY and R. CHAKRABARTI.....page 328
 Thrombolytic therapy P. T. FLUTE.....page 333
 Fibrinolytic therapy of coronary thrombosis H. A. DEWAR.....page 336
 Thrombolytic therapy GEORGE P. MCNICOL and A. S. DOUGLAS.....page 338
 The effect of some physiological stimuli on fibrinolytic activity in man measured by the heparin fractionation method W. B. THOMSON, J. GREEN, and I. LYNN EVANS.....page 341
 Hyaline membrane disease in relation to fibrinolytic activity L. SINCLAIR.....page 345
 The study of ¹³¹I-fibrinogen in humans T. FREEMAN.....page 347
 Fibrin and thrombosis in the central nervous system in children with particular reference to congenital hydrocephalus JOHN L. EMERY.....page 348
 Fibrinolytic agents in the treatment of tuberculous meningitis JOHN LORBER.....page 353
 Fibrinolytic therapy in meningitis and ventriculitis G. T. STEWART.....page 355
 Effects of fibrinolytic agents on experimental and clinical thrombosis M. J. TSAPOGAS.....page 360
 The use of urokinase in the anterior chamber of the eye DERMOT PIERSE and HYLTON LEGRICE.....page 362
 Intravenous streptokinase in the treatment of retinal vascular occlusion CHRISTINE HAWKEY and MARGARET HOWELL.....page 363
 Fibrinolytic activity in plasma and urine in chronic renal disease N. EDWARD, D. P.-G. YOUNG, and M. MACLEOD.....page 365
 Changes in fibrinolytic activity during surgical procedures I. LYNN EVANS.....page 369