The complete Proceedings of the 1958 Congress of Genetics in Montreal are now available. Vol. II, containing abstracts of the proffered papers, was sent out last year when the Congress opened, and vol. I has recently been published giving the main lectures as well as other reports. It has thus been achieved to complete the publications of the Congress within one year after it was held. Vol. II contains only very short introductions to or summaries of the major part of the papers, which were read at the Congress, and no references as to the place of publication of the detailed reports are given. The lack of an index of subjects makes it difficult to find works of special interest to the reader.

Vol. I gives all the details of the organisation of the Congress, the full records of the inaugural session and of special convocations, the minutes of the business meeting, and the highly interesting “story” of the Congress, which clearly demonstrates the tremendous work imposed on those, who devoted years of their life to the organisation and administration of the Congress. Five years of hard work lay behind the success. Most of the lectures given at the seven symposia are found here. These symposia dealt with the structure of genetic material, cytogenetics and plant breeding, genetics in animal breeding, mutation and mutagenesis, physiological genetics, genetics in evolution and advances in human genetics. Furthermore, three special lectures are included: on a new category of chromosomes, by A. Müntzing, on genetics and the destiny of man, by Dobzhansky, and finally a paper on genetics, the gene, and the hierarchy of biological sciences by the president of the Congress, Sewall Wright. Two panel discussions concerning the teaching of genetics and Drosophila terminology are also reported. Apart from the special symposium on human genetics, many of the other papers are of great value even to those, who are only dealing with human genetics, because they introduce many new ideas and fruitful thoughts and throw new and better lights on many of the basic principles in genetics, which are essential also to human geneticists. The symposium on human genetics was opened with a lecture by Book on schizophrenic psychoses. A very interesting survey of the biochemical studies in this group of diseases is given, and Book suggests that the results indicate that at least some of these psychoses may be caused by a genetically determined defect in those enzyme systems which maintain homeostasis by the breakdown of substances produced during stress. New studies of the biochemical effects of major gene differences are certainly needed.

Lamy and Frézal report extensive investigations on the etiology of twinning which confirmed earlier statements as to the significant role of heredity in the production of dizygous twins. Harris gives a few examples of recently disclosed biochemical aberrations, and discusses the mechanisms which may be responsible for abnormal amounts of amino-acids in the urine. This can be caused not only by a block in intermediary metabolism but also by some renal defect, and it is suggested that inherited peculiarities in the transport of substances elsewhere in the body might easily mimic the kind of changes observed in blocks in intermediary metabolism. But mutant alleles may cause not only defects but also the formation of new proteins with
qualitatively different enzymatic properties. Finally the recent advances in our knowledge of protein synthesis are treated. Neel gives an excellent survey of the aspects of the genetic control of the structure of the haemo-
238
Libri
globin molecule. This vast field, which practically did not exist ten years ago, has increased our knowledge on many basic genetic points and promises to give much more information on biochemical and population genetics. The symposium was closed by Fraser Roberts, who reviewed the present situation within another newly developed field, the associations between blood group and disease. New studies suggesting new significant associations were mentioned, and again they were with diseases of the gastro-intestinal tract. More investigations are certainly still needed and both positive and negative findings ought to be reported. This volume is fascinating and stimulating reading and is recommended to all who want a concentrated survey of our present knowledge within the major fields of genetics. Mogens Hauge, Copenhagen


The study of the diseases grouped under the heading “inborn errors of metabolism” demands not only clinical knowledge but also rather intimate knowledge of biochemistry and genetics and this, together with the comparative rarity of the individual syndromes, makes it difficult for the clinician to keep his knowledge concerning these diseases up to date. This handy little book by Hsia fills a great need in this respect. About 70 known defective metabolic states are presented clinically, genetically and pathologically in a brief but extremely clear manner. The text concerning each of the diseases is accompanied by particularly beautiful and clear plates to demonstrate the mode of inheritance as well as the biochemical defect involved and the resulting development of symptoms.

The abundant material is divided in a logical manner according to the biochemical character of the defect. A defect in the structure of the molecule is found in the various forms of abnormal haemoglobins, thalassaemia, Pelger’s nuclear anomaly and a few other conditions. The complete absence of synthesis of special proteins is involved in agammaglobinaemia, ceruloplasmin deficiency (Wilson’s disease), congenital a fibrinogen-aemia and the various forms of haemophilia (classical haemophilia, Christmas disease etc.). The most extensive section is devoted to the various known forms of enzyme defects in the metabolism of amino acids (phenylketonuria, alkaptonuria etc.), carbohydrate metabolism (fructosuria, galactosuria, hereditary spherocytosis, vanGierks disease etc.), pigment metabolism (porphyria, methaemoglobinemia, familial non-haemolytic jaundice etc.) and endocrine metabolism (various forms of cretinism and suprarenal hyper-plasia). A special section is devoted to disturbances in the renal transport apparatus (aminoaciduria, renal diabetes insipidus, renal glycosuria and FanconVs syndrome) and, finally, the last chapter deals with the numerous metabolic defects concerning which the pathogenesis is as yet incompletely elucidated (among these are the hyperlipaemiae, Niemann-Pick’s disease, various forms of muscular dystrophies together with diabetes mellitus and gout). It is of great practical significance that a very meticulous account is given in an appendix of the biochemical method in the diagnosis in the various deficiency states.

There can be no doubt that this little book will become invaluable for paediatricians, physicians, laboratory research workers and geneticists. The references to the literature are abundant and well classified although with a not inconsiderable Anglo-Saxon bias.
The absence of any reference to Becker’s pioneer differentiation of the progressive muscular dystrophies is a regrettable omission and Gamstorp’s and Sagilà’s episodic adynamia is not even mentioned. Bent Harvald, Copenhagen

Libri – Varia

239


The authors of this book, who are closely connected with paediatrics as well as with human genetics, have intended to illustrate the importance and action of genes in paediatric diseases by means of a short survey of a number of metabolic deviations which may cause major diseases recognizable early in childhood. In addition to their own studies within this field they review most of our present knowledge concerning diseases due to disturbances in amino acid, lipid and carbohydrate metabolism, in the renal transport mechanism as well as a few other similar states of obscure etiology, i.e. diabetes mellitus, spontaneous hypoglycaemia, pituitary diabetes insipidus, cystic fibrosis of the pancreas and some adrenal disorders. Besides short clinical descriptions the features of anatomy, biochemistry, genetics, pathogenesis and therapy are summarized. It is clearly demonstrated that genetic knowledge is indispensable to all those who are attacking nosological, pathogenetic and therapeutical problems and in preventive medicine. An extensive bibliography accompanies the chapters and a short survey of the basic principles of genetics is given as an introduction, which should enable all physicians to use this book. The regrettable lack of an index of subjects will, however, reduce its value in daily work.

The great current interest in these problems is reflected by the fact that one or two other books, covering much the same aspects, have appeared in the Anglo-Saxon world at the same time. Lis Elmholt, Copenhagen.


The growing interest in human genetics and the need for more intensive and extensive studies within this field have made the lack of a comprehensive and up-to-date methodological manual increasingly conspicuous. The title of the present book suggests that it may have been the intention of the authors to fill this gap. It seems that nothing comparable to this volume has existed in France previously, but it is difficult to define the proper place and value of this book to English-reading people. They will probably find that the first part (130 pages) on general and formal genetics does not reach the level of the numerous short, but excellent introductions to genetics and human genetics which have appeared in England and America during the last 5-10 years. The main part of the book (400 pages) describes most of the current statistical methods used by geneticists and in most cases examples of their application are given. It does not contain very much more than is found in the well known books in English on these subjects. A register rerum is included but the bibliography is extremely limited. The amount of errata is disturbingly high. Mogens Hauge, Copenhagen

VARIA

Teratology Society. For several years scientists interested in basic problems of congenital malformations have held informal conferences in which questions of common interest were discussed. Anatomists, biochemists, embryologists, geneticists, obstetricians, pathologists, pediatricians, plastic surgeons and others attended these conferences which were in part
supported by the Association for the Aid of Crippled Children, New York, N.Y., and the Human Embryology and Development Study Section of the National Institutes of Health. With the increased interest in recent years in this area, it was felt that there was a need for a Society to hold regular meetings in which investigations concerned with etiology and morphogenesis of congenital malformations could be presented and discussed. Following the fourth teratology conference, which was held at the Memorial Sloan-Kettering Cancer Center in New York City and attended by 76 scientists from Canada, England, France, Germany and the U.S.A., “The Teratology Society” was formed for the purposes outlined above. The following officers were elected: President: Josef Warkany, M.D., Cincinnati, O.; President-Elect: James G. Wilson, Ph.D., Gainesville, Fla.; Secretary-Treasurer: Marjorie M. Nelson, Ph.D., San Francisco, Calif.; Recorder: Sidney Q. Cohlan, M.D., New York, N. Y.; Council: F. Clarke Fraser, Ph.D., M.D., Montreal, Canada, David L. Gunberg, Ph.D., Portland, Ore., and M. Lois Murphy, M.D., New York, N.Y. The National Foundation assisted in the formation of the Society with advice and financial aid. Inquiries about The Teratology Society should be directed to Dr. Marjorie M. Nelson, Department of Anatomy, School of Medicine, University of California, San Francisco 22, Calif.

Varia

Programme provisoire. Problèmes physiques (President de Section: Voss, Allemagne): Spectrographie ultra-violette (Sandritter, Allemagne); Spectrographie infra-rouge (Le-comte, France); Spectrographie dans le visible et photométrie (Locquin, France); Radio-autographie comme méthode d’exploration histochemique (Leblond, Canada); Spectrographie de masse et par rayons X (Ríngertz, Suède); Interférométrie (Ríngertz, Suède); Fluoroscopie (de Lerma, Italie); Microscopie électronique (Barnett, USA).

Données biochimiques appliquées à l’histochimie. (President de Section: Líllíe, USA): Protéines (Líson, Brésil); Phosphatases (spécifiques et non spécifiques) (Bankowski et Vorbrodt, Pologne); Transporteurs d’hydrogènes (Novíkoff, USA); Estérases (Burstone, USA); Dérives d’oxydation et lipides (Polonovskí, France et Wolman, Israël); Poly-saccharides (Takeuchi, Japon); Hétéroprotéines et acides nucléiques (Brachet, Belgique); Histochemie inorganique (Híntzsche, Suisse); Phenols et indols ( Vialli, Italie); Métabolisme du Fer (Gedíck, Allemagne); Immunohistochemie (Mayersbach, Autriche).

Histochemie appliquée (President de Section: Seki, Japon): Tissu conjonctif (Delaunay, France); Développement embryonnaire (Rossi, Italie); Tumeurs malignes (Godlewski, Pologne et Vendrely, France); Appareil genital et placenta (Panigel, France); Dent (Weill, France); Glandes endocrines (Herlant, Belgique); Système nerveux normal et pathologique (Portagalov, URSS); Peau et glandes cutanées (Montagna, USA); Pharmacologie (Lindner, Allemagne); Botanique (Roberts, USA).