



Books Received

Human Genetics: Problems and Approaches

By F. Vogel (Heidelberg) and A.G. Motulsky (Seattle). Springer-Verlag, Berlin-Heidelberg-New York, 1979. Hard cover, 19 × 26.5 cm, XXVII + 700 pp, 420 illustrations, 210 tables. Price: 98.00 DM, approx. \$53.90 US.

This is an authoritative textbook written to become a standard reference work. It is subdivided into nine sections: 1) History of Human Genetics, 2) Human Chromosomes, 3) Formal Genetics of Man, 4) Gene Action, 5) Mutation, 6) Population Genetics, 7) Human Evolution, 8) Genetics and Human Behavior, and 9) Practical Applications of Human Genetics and the Biological Future of Mankind. These are followed by nine methodological Appendixes: 1) Methods for the Estimation of Gene Frequencies; 2) Testing for Segregation Ratios: Frequent Traits, No Ascertainment Bias, Dominance; 3) Formulas and Tables for the Correction of Ascertainment Biases, Testing and Estimating of Segregating Ratios, Other Statistical Problems, and a Calculated Example; 4) General Treatment of the Model of Multifactorial Inheritance with a Threshold Effect; 5) Diagnosis of Zygosity; 6) Heritability Estimates from Twin Data; 7) Method of Path Coefficients; 8) Genetic Counseling: Use of Conditional Probabilities; 9) Examples for Linkage Calculations. The volume is completed by an organized section of about 1800 references.

Lucidly written and richly illustrated, this book offers a comprehensive treatment of the biological, medical, and behavioral aspects of human genetics, with specific attention to the conceptual basis, methods, and practical applications.

Here and there, specific sections may appear to have been much too compressed or simplified, sometimes to lack modern or less conventional approaches; some references may not be the most appropriate ones and possibly reflect the authors' preference in favor of work they are more familiar with. There may be a number of relatively minor shortcomings of this nature that are perhaps only relevant to the specialist and that are likely to be inevitable in any attempt to a synthesis. In fact, this book provides a mine of information as well as a successful combination of the merit of the multi-authored treatises in several volumes and of the more elementary textbooks, with a fairly detailed though unified approach to the rapidly growing field of human genetics.

The Structure and Measurement of Intelligence

By H.J. Eysenck, with contributions by D.W. Fulker (London). Springer-Verlag, Berlin-Heidelberg-New York, 1979. Hard cover, 16.5 × 24 cm, VI + 253 pp, 69 illustrations, 38 tables. Price: 44.00 DM, \$24.20 US.

This is a textbook designed primarily for undergraduates in psychology and education. The highly controversial field of intelligence is reexamined step by step, from definition to measurement and determinants.

After examining in some detail the relation of psychology and psychometry to physical sciences, the book extensively describes the theory of intelligence and its factor analysis, the construction of intelligence scales and IQ measurement, the existence of IQ differences and the reliability of IQ as a measure of intelligence, and finally the crucial question of the determinants of intelligence: nature versus nurture. The latter is examined with particular detail in three chapters devoted to heredity, environment, and specifically to socioeconomic status, with the aid of modern techniques of multivariate analysis of twin data. Models of intelligence and social implications of intelligence are discussed in the final chapters.

The book is completed by three Appendix sections respectively devoted to: a) The Case of Sir Cyril Burt, b) The Mathematical Basis of Factor Analysis, and c) The Algorithm for Speed-Persistence-Error Theory of Intelligence.

The Shaping of Personality: Conflict, Choice, and Growth

By F. Barron (Santa Cruz). Harper and Row, New York, 1979. Hard cover, 15.5 × 24 cm, XXIV + 359 pp.

This is not just one more textbook on personality, although it does in fact contain the kind of information that one expects to find in similar textbooks. Following an extensive introduction in which the author defines his reflections on human personality as being rooted in three sources of observations and data: the clinic, the life story, and the assessment method, the book is then subdivided into four main parts. Part 1 deals with a physical description of nature, of man and his evolution, of the discovery of the unconscious. Part 2 illustrates traits, types, and measurements of human personality. Part 3 follows the individual life span from conception through infancy, adolescence, maturity, to the old age. Finally, Part 4 deals with the self and its many states, including dreaming, altered states of consciousness, etc.

Written in a very personal and imaginative way, and with an outstanding cultural investment, this is first of all a lively book, a continuous source of unconventional observations, of provocative remarks, of profound insights.

Genes and the Mind – Inheritance of Mental Illness

By M.T. Tsuang and R. Vandermey (Iowa City). Oxford University Press, 1980. Hard cover with jacket, 13 × 21.5 cm, X + 143 pp. Price: £ 5.95, approx. \$12.00 US.

This booklet is primarily addressed to the general reader in an effort to make the biologic nature of a number of mental disorders easily accessible to the nonspecialist, while also providing a humane guide to psychiatric patients and their relatives. The first three chapters provide introductory information on human genetics and genetic counseling in psychiatry. Four other chapters are then devoted to four major psychiatric disorders: schizophrenia, manic depression, presenile dementia and Huntington's chorea, and alcoholism.

The Muscular Dystrophies

Edited by J.N. Walton and F.L. Mastaglia (Newcastle upon Tyne). Vol. 36, No. 2, of the *British Medical Bulletin*, London, 1980. Soft cover, 22 × 28.5 cm, 100 pp, illustrated. Price: £ 7.20 (UK, £ 6.00; USA and Canada US \$15.00).

Planned by a Committee chaired by Professor Walton and including Professors A. Huxley, F.L. Mastaglia, and S.V. Perry, this monographic issue of the *British Medical Bulletin* is devoted to the muscular dystrophies, with contributions by some ten British specialists. Part 1, Clinical and Genetic Studies, consists of the following chapters: Clinical features and classification of muscular dystrophies (D. Gardner-Medwin); Duchenne muscular dystrophy: genetic aspects (A.E.H. Emery); Clinical biochemistry of muscular dystrophy (R.J.T. Pennington); Electrodiagnosis of the muscular dystrophies (M. Hayward); The heart in muscular dystrophy (S. Hunter); Respiratory system in muscular dystrophy (J. Newsom-Davis); Management of muscular dystrophy (V. Dubowitz and J. Heckmatt). Part 2, nicely illustrated, describes Pathogenesis and Current Trends in Research, with the following contributions: Morphological changes in dystrophic muscle (M.J. Cullen and F.L. Mastaglia); Skeletal muscle: regeneration and transplantation (J.C. Sloper and T.A. Partridge); Human muscle physiology and metabolism (R.H.T. Edwards); Intermediary metabolism of muscle in Duchenne muscular dystrophy (D.A. Ellis); Muscle cell differentiation and genetic engineering (K.W. Jones); Dystrophic muscle cultures (E.J. Thompson); Is there a membrane defect in muscle and other cells? (J.A. Lucy); Animal models of muscular dystrophy (J.B. Harris and C.R. Slater); Future prospects (A.F. Huxley).

Neonatal Screening for Inborn Errors of Metabolism

Edited by H. Bickel (Heidelberg), R. Gouthrie (Buffalo), and G. Hammersen (Heidelberg). Springer-Verlag, Berlin-Heidelberg-New York, 1980. Hard cover, 16.5 × 24 cm, XVIII + 345 pp, 61 illustrations, 119 tables. Price: 86.00 DM, approx. \$50.80 US.

Based on an international symposium held in Heidelberg, the book presents the contributions of scores of clinicians and scientists experienced in the field of neonatal screening. The various contributions are organized into four sections: Screening for hereditary metabolic disorders; Neonatal screening for congenital hypothyroidism; Neonatal screening programs: organization, legislation methodologic pitfalls, and quality control; Recommendations for and future aspects of screening.

Genetic Diseases of the Skin

By V.M. Der Kaloustian and A.K. Kurban (Beirut). Springer-Verlag, Berlin-Heidelberg-New York, 1979. Hard cover, 19 × 27 cm, XIII + 339 pp, 441 illustrations, 17 tables. Price: 178.00 DM, \$97.90 US.

Following previous attempts, started with Cockayne in 1933, and in the light of the considerable developments of recent years, the authors of this volume have assembled current information on the now fairly large number of disorders affecting the skin and its appendages that are known or suspected to be of genetic nature. The book is richly illustrated and clearly organized. Following an introduction to human genetics, the various groups of dermatological disorders are systematically dealt with, generally with reference to clinical presentation, pathology and pathophysiology, inheritance, and treatment. An Appendix on differential diagnoses of disorders based on dermatologic signs completes the volume.

Dermatoglyphics – Fifty Years Later

Edited by W. Wertelecki (Mobile) and C.C. Plato (Baltimore) in collaboration with the American Dermatoglyphics Association and N.W. Paul. Volume XV, Number 6 of Birth Defects: Original Article Series. The National Foundation – March of Dimes. Alan R. Liss, Inc., New York, 1980. Hard cover, 15 × 23 cm, XXVI + 800 pp, illustrated. Available from Alan R. Liss, Inc. (150 Fifth Avenue, New York, NY 10011) at \$76.00 US; in Europe and the Middle East available exclusively through European Book Service (P.O.B. 124, 1380 AC Weesp, Holland) at Dfl 228.00.

This is the book of proceedings of the first of a series of symposia on dermatoglyphics that, following Professor Harold Cumming's death in 1976, the American Dermatoglyphics Association and the Department of Medical Genetics of the University of South Alabama decided to undertake with the assistance of the National Foundation. This first symposium was held at Gulf Shores, Alabama, in March, 1977, and was attended by numerous participants from different countries. Their contributions cover a variety of areas and are subdivided into six main sections: Methodology, Embryogenesis, Population characteristics, Genetics, Medicine, and Nonhuman primate dermatoglyphics. The volume is introduced by a couple of articles devoted to Dr. Cummins, whose pioneering work, started half a century ago, is taken as the birthdate of modern dermatoglyphic research as reflected by the book's title.

Membrane Transport in Erythrocytes – Relation Between Function and Structure

Edited by U.V. Lassen, H.H. Ussing, and J.O. Wieth (Copenhagen). Munksgaard, Copenhagen, 1980. Hard cover with jacket, 15 × 23 cm, 557 pp, including tables and illustrations. Price 275.00 D.kr., \$50.00 US.

This is the volume of proceedings of the 14th Alfred Benzon Symposium held in Copenhagen in 1979 and devoted to the erythrocyte membrane. It consists of contributions by an international group of experts, falling in the areas of membrane ultrastructure, membrane lipids and membrane transport, transport and effect on potassium permeability, structure and interactions of erythrocyte membrane proteins, function of membrane proteins in passive transport processes: biochemical approaches, and anion transport: kinetic approaches and models.

The Human Genetic Mutant Cell Repository

List of Genetic Variants, Chromosomal Aberrations and Normal Cell Cultures Submitted to the Repository. Sixth edition, 1979. U.S. Department of Health, Education and Welfare – National Institutes of Health. Paperback, 20 × 26.5 cm, XXIV + 168 pp. Direct inquiries to: Institute for Medical Research, Copewood and Davis Streets, Camden, NJ 08103.

Major Sex Determining Genes

By S. Ohno (City of Hope). Springer-Verlag, Berlin-Heidelberg-New York, 1979. Hard cover, 16.5 × 24 cm, XIV + 140 pp, 34 illustrations, 6 tables. Price: 39.00 DM, \$21.50 US.

The Phylogeny of Human Chromosomes

By H.N. Seuanez (Rio de Janeiro). Springer-Verlag, Berlin-Heidelberg-New York, 1979. Paperback, 16.5 × 24 cm, X + 189 pp, 49 illustrations, 10 tables. Price: 38.00 DM, \$20.90 US.

Humangenetik – Fragen und Antworten

Human Genetics – Questions and Answers. By H. Zankl (Homburg/Saar). Springer-Verlag, Berlin-Heidelberg-New York, 1980. Paperback, 13.5 × 20.5 cm, VI + 132 pp, 6 illustrations. Price: 13.80 DM, approx. \$8.20 US.

Klinische Genetik in der Pädiatrie – 2. Symposium in Mainz

Clinical Genetics in Pediatrics – 2nd Symposium in Mainz. Edited by J. Spranger (Mainz) and M.E. Tolksdorf (Kiel). Georg Thieme Verlag, Stuttgart-New York, 1980. Paperback, 15.5 × 23 cm, XIV + 250 pp, 265 illustrations, 25 tables. Price: 79.00 DM.

Mathematical Population Genetics

By W.J. Ewens (Clayton and Philadelphia). Volume 9 in the series, Biomathematics. Springer-Verlag, Berlin-Heidelberg-New York, 1979. Hard cover, 17 × 25 cm, XII + 325 pp, 4 figures, 17 tables. Price: 59.00 DM, approx. \$33.10 US.

Algebras in Genetics

By A. Wörz-Busekros (Tübingen). Volume 36 in the series, Lecture Notes in Biomathematics. Springer-Verlag, Berlin-Heidelberg-New York, 1980. Paperback, 16.5 × 24 cm, VI + 237 pp, 29 tables. Price: 28.50 DM, approx. \$16.90 US.

Kinetic Logic – A Boolean Approach to the Analysis of Complex Regulatory Systems

Edited by R. Thomas (Brussels). Volume 29 in the series, Lecture Notes in Biomathematics. Springer-Verlag, Berlin-Heidelberg-New York, 1979. Paperback, 16.5 × 24 cm, XIII + 507 pp, 182 figures, 89 tables. Price: 46.00 DM, approx \$25.30 US.

Membrane Biochemistry – A Laboratory Manual on Transport and Bioenergetics

Edited by E. Carafoli and G. Semenza (Zurich). Springer-Verlag, Berlin-Heidelberg-New York, 1979. Paperback, 15 × 23.5 cm, X + 175 pp, 45 figures, 6 tables. Price: 27.00 DM, approx. \$14.90 US.

Molekular- und Zellbiologie

Molecular and Cell Biology. By P. von Sengbusch (Bielfeld). Springer-Verlag, Berlin-Heidelberg-New York, 1979. Hard cover, 20 × 27.5 cm, XII + 673 pp, 616 illustrations.

Medizinische Mikrobiologie – Fünfte, neubearbeitete Auflage

Medical Microbiology – 5th Revised Edition. By E. Jawetz (San Francisco), J.L. Melnick (Houston), and E.A. Adelberg (New Haven). Springer-Verlag, Berlin-Heidelberg-New York, 1980. Paperback, 16.5 × 24 cm, XVI + 778 pp, 290 illustrations.

Medizinische Embryologie

German translation of "Medical Embryology" by J. Langman (Carlotteville), Baltimore 1975. Georg Thieme Verlag, Stuttgart-New York, 1980. Paperback, 12 × 19 cm, X + 418 pp, 285 illustrations. Price: 19.80 DM.

Stoffwechselfysiologisches Praktikum

A Guide to Metabolic Physiology. By H. Emmerich (Darmstadt). Georg Thieme Verlag, Stuttgart-New York, 1980. Paperback, 12 × 19 cm, X + 328 pp, 72 illustrations. Price: 26.80 DM.

Studies in Human Ecology. Volume 4

Edited by N. Wolanski and E. Kasprzak (Warsaw). PWN-Polish Scientific Publishers, Warszawa, 1980. Paperback, 17 × 24 cm. 251 pp, illustrated.