ADVANCES IN HUMAN GENETICS, VOLUME 1. Edited by Harry Harris and Kurt Hirschhorn. xii + 339 pp., figures, tables, bibliographies, index. Plenum Press, New York. 1970. $19.50 (cloth).

ADVANCES IN HUMAN GENETICS, VOLUME 2. Edited by Harry Harris and Kurt Hirschhorn. xiii + 317 pp., figures, tables, bibliographies, index. Plenum Press, New York. 1971. $25.00 (cloth).

The great development of human genetics, especially during the last two decades, created the need for periodical appraisals of different aspects of the field. The oldest series which tries to fill this need is *Progress in Medical Genetics*, which was started in 1961; the Germans are publishing *Fortschritte der allgemeinen und klinischen Humangenetik*, while the books here under review are the two first volumes of a new series. Since the *Annual Review of Genetics* also includes topics on humans (the '71 issue presented six), there is no doubt that the area is being well covered and that the editors should be alert to avoid possible duplications.

Two well-known human geneticists, H. Harris and K. Hirschhorn, were able to produce two excellent books by carefully choosing their subjects and contributors. The ten chapters (five in each volume) are authored by five Americans, three Canadians, two French, two Swiss, one British and one Australian. The series is opened with a thoughtful review by J. H. Edwards indicating ways as how pedigree data should be analysed. The other contributions can be broadly classified under three main topics: (1) — Human cytogenetics and cell culture; (2) — Comparative and population genetics; and (3) — Physiological and clinical genetics. Each of them is covered by three articles.

It is impossible in a short review to do justice to all contributors, examining their papers in detail. But I was particularly impressed by O. J. Miller's analysis of the uses of autoradiography in human cytogenetics. In the largest chapter of the two volumes (95 pages) he adequately reviews the importance of this technique for chromosome identification, indicating also its relevance to problems dealing with the functional significance of DNA replication patterns and the organization of the genetic material. D. H. Carr's review of the role of chromosome aberrations in abortions and W. J. Mellman's survey of biochemical and genetic aspects of human cell culture also furnish good summaries of the available data.

The clinical results, mainly presented in three articles but also given in other contributions, were adequately integrated with basic biochemical and physiological information. This is especially true for two papers, one by C. R. Scriver and P. Hechtman and the other by J. Frézal and J. Rey, dealing with the factors which influence membrane transport.

Probably the subjects of the two volumes which will appeal most to readers of this journal are: (1) — The lucid discussion of J. H. Edwards on the phenotypic correlation within sets of relatives, and of heritability estimates; (2) — Questions about the evolution of antigenic determinants, aptly covered by H. H. Fudenberg and N. L. Warner, as well as the comparison of catalase deficiency states in animals and men (paper by H. Aebi and H. Suter); (3) — The population distribution of G-6-PD variants, acatalasemia and albinism in man (articles by H. N. Kirkman; H. Aebi and H. Suter; and C. J. Witkop, Jr.). In relation to the latter condition the data suggest that tyrosinase-positive albinism is more frequent in Negroes and less frequent in Caucasians, while tyrosinase-negative albinism is about equally frequent in the two races.

On the whole these two books which summarize and interpret data from almost 2,500 papers scattered throughout widely different sources, provide an authoritative evaluation of both basic and applied aspects of human genetics. They are, therefore, highly recommended to all persons interested in these fields.

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