BOOK REVIEW


This monograph, produced by two recognized experts in the field, provides an authoritative review of the developments in the study of human hemoglobin during the last decade. Emphasis is placed on the hemoglobinopathies, including thalassemia. The contents are divided into a discussion of chemical and structural features, genetics of human hemoglobin, a description of geographical distribution with its ecological implications, and clinical investigations of the various diseases. A separate section is given over to a discussion of the biochemistry and genetics of the microcythemia.

The authors have included abundant illustrations to supplement the text. Many are reprinted from previous published work of their own or stem from their own investigations. They have also reprinted a number of illustrations from especially significant articles of other workers in this broad field. For example, Crick’s model of alpha and beta chains is reprinted from Nature and a chart from the article by Jacob and Monod describing hypotheses concerning actions of regulator genes is reprinted from the Journal of Molecular Biology. Besides these there are, however, an unnecessary number of pictures of patients with hemoglobinopathies which add little to the text.

The data provided on the molecular abnormalities of the hemoglobinopathies is fairly complete as of 1962, although it is not detailed. The discussion of protein synthesis according to recent concepts of DNA and RNA action is necessarily simplified, but presents in a clear manner the most widely accepted hypothesis of a messenger RNA intermediate providing a template for protein synthesis on the ribosome. It is unfortunate, however, that more detailed data on the mammalian tissue and reticulocytes, in particular, could not have been included.

A vast amount of material is compressed into this book with adequate use of references to allow the reader to pursue the subject in depth. Since the main value of the book is its summary of current knowledge and concepts in this rapidly expanding field, it is unfortunate that space is given to clinical data which is already well recognized rather than to more extensive description of current progress. However, much of this part of the book does consist of the authors’ own past contributions and therefore is perhaps appropriate.

The volume is extremely valuable for the hematologist not directly involved with the study of these diseases since it offers a succinct presentation of their present status. For the worker in the field, it provides easy access to references. It is one of the few works where an attempt has been made to bring together a large amount of data from several disciplines in which recent progress has been made in the field of globin synthesis and hemoglobinopathies.—Robert S. Schwartz