known sulfa drugs. The significance and importance of absorption, excretion, distribution, alteration, and toxicity studies in animals of the chemotherapeutic agents is emphasized by J. T. Litchfield, Jr., in the chapter covering the pharmacology of these compounds. In the chapter on "Relationship of Structure to Chemotherapeutic Activity," Dr. Northey has attempted to "point out some of the generalizations or inferences which may be drawn from the mass of often-conflicting data" reported. Benjamin W. Corey, director of Lederle Laboratories Division of the American Cyanamid Company, reviewed and edited the summary on the medical use and application of these drugs, which "is not intended as a therapeutic guide but as a research tool." A critical analysis of the various theories of the mechanism of action of the sulfonamides and their contributions to the developments in this field is admirably covered in Chapter XI.

The last section of the book contains appendices covering the key to activities, organisms or diseases, and trade names for sulfanilamide, its derivatives, and related compounds.

The reference list contains 2,668 references, of which about 600 are largely chemical.

The book is well bound and printed, and only a few errors were noted by the reviewer. In the 5 chapters dealing with the classification of the compounds, grouping of all the tables at the end of each chapter presents some inconvenience in referring to these while following the text. However, Dr. Northey has presented a wealth of information in an interesting manner, and his book should be on the "must" list as a ready reference for those biologists, pharmacologists, clinicians, chemists, and others engaged in, or wishing to undertake or become informed of, research on the sulfonamides.

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The Rh factor in the clinic and the laboratory. Joseph M. Hill and William Dameshek. (Eds.) New York: Grune & Stratton, 1948. Pp. 192. (Illustrated.) $4.25.

This special issue of *Blood, The Journal of Hematology,* contains articles on the Rh factor by 15 contributors. The papers were originally read at the International Hematology and Rh Conference in Dallas and Mexico City.

Following a short introduction by Dameshek, Levine presents an over-all summary of the history and significance of the Rh factor. Papers on the history of Rh seldom agree as to details and often show a deplorable tendency to personal bias. Unfortunately, the present summary is not entirely free from such bias. It does, however, cover the essential facts of the general Rh picture and sets the stage for the subsequent presentations.

The second paper, by Race of Great Britain, contains an account of the activities of the British workers from 1943 to 1947, culminating in the formulation and testing of the Fisher scheme of allelic arrangement of the genetic factors. Multiple alleles at the C and D loci are discussed, and the entire genetic picture is reviewed.

A contribution by Dameshek on hemolytic mechanisms follows. The physiologic principles of red cell destruction are reviewed, and hemolysins, agglutinins, erythrostasis, splenic activity, and chemical and physical factors are discussed.

Guzman of Mexico presents a short summary of his researches on the nucleolar content of blood cells, involving studies on the volumetric, morphological, and structural characteristics of nucleoli.

The fifth paper is a report by Witebsky on the interrelationship between the Rh system and the A B system, centered largely around an instance of the production by the mother of an erythroblastotic baby of an anti-A antibody of the blocking type, which served as a sensitive diagnostic serum for differentiating the subgroups of group A.

Hill, Haberman, and Jones offer a provocative paper on hemolytic Rh-immune globulins in which they present evidence for a third order of antibodies. Their classification of antibodies would include classical agglutinins (specific adsorption with subsequent agglutination), blocking antibodies (specific adsorption with saturation of the antigen and no agglutination), and cryptagglutinoids (specific adsorption without evident saturation of the antigen and without agglutination).

Muirhead, Haley, Haberman, and Hill, in the seventh paper, present a long and complete discussion of the management of acute renal insufficiency due to incompatible transfusion, based on 28,630 blood transfusions over a period of 8 years.

Davidsohn discusses the study of Rh antibodies in the bloods of 73 mothers of babies with fetal erythroblastosis. Correlation of the results with clinical findings indicated that blocking antibodies are present in 85% of mothers of babies with hydrops or stillborn, but in only 9% of mothers of babies with icterus gravis. Predominance of saline agglutinins favored survial.

The next paper, by Chown, presents some anomalous results of Rh sensitization, including instances in which normal Rh-positive children succeeded diseased children and in which normal children were born to mothers with anti-Rh antibodies in their blood.

The possible role of the A and B factors in erythroblastosis is discussed by Orozco of Mexico, and evidence for the importance of these factors in the production of the disease is presented.

Wallerstein outlines the basic pathology of erythroblastosis and considers in detail the indications for, and treatment by, blood transfusion.

A report of the after-luncheon discussion, at which a number of practical problems were considered, and the banquet address by Guerola of Mexico, on the history of blood transfusion in Mexico, constitute the last two sections of the volume.

Although there are certain regrettable commissions among the contributors to the volume, it stands in general as a fairly complete, up-to-date summary of the many facets of the important problem of blood incompatibility.

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