

with a Foreword by H. Laborit, Chief of Research in the Army Health Services, Paris, France. Fabricoid. Pp. 182, with 12 figures and 29 tables. Published by Editions Arscia S.A., 60, rue de l'Etuve, Bruxelles, Belgium, and Librairie Maloine S.A., 27, rue de l'Ecole de Médecine, Paris, 1962.

This comprehensive monograph, containing 327 references, pursues the fundamentals in the problem of carbohydrate metabolism and pancreatic function in animals in the hypothermic state. The wealth of detail presented can be summarized as follows: (1) hypothermia diminishes glucose consumption; (2) the reactional activity of the pancreas is nearly suppressed; and (3) the glucose output of the liver is lower than in the normothermic dog. To the student of hypothermia, metabolism, or both, this presentation should prove most interesting; however, to the practicing anesthesiologist, it will not be of great benefit.

C. R. STEPHEN, M.D.

A Physical Theory of the Living State: The Association-Induction Hypothesis. BY GILBERT NING LING, B.Sc., Ph.D., Director of the Department of Molecular Biology, Pennsylvania Hospital. Cloth. Pp. 680, with illustrations. Blaisdell Publishing Co., A Division of Random House, Inc., New York, London, 1962.

The author has been noted in his field for 15 years. His work is praised by his peers, including Dr. C. N. Yang, a Nobel Laureate in Physics.

This book was written to coordinate physical chemistry, biochemistry and physiology, and explain some of the intricacies of living tissue. The contents are on such an advanced level that those familiar with one aspect may be baffled by others. To aid in overcoming this difficulty and to bridge the gap between scientific disciplines there is a glossary of 71 pages. Unfortunately, the mathematical calculations in some portions are too complicated for anyone who has not had specialized training.

The range of subjects is broad: behavior of ions, nonelectrolytes, and proteins; cellular potentials and permeability; excitation, contraction and inhibition; the actions of enzymes, hormones, and drugs; growth and neoplasm.

The author's "association-induction" hypothesis is drawn upon to explain the phenomena of chemical action in living tissue. This hypothesis states that the association between proteins and interacting particles is critically different *in vivo* and *in vitro*, and that the primary function of the polarizable resonating chain of a protein is to provide a vehicle for the transmission of an inductive effect.

The book contains many tables, graphs, diagrams and mathematical calculations to support its theses. The bibliography and references are extensive.

Every physician should read some portions of this book, to see how far the basic scientists have come in understanding the behavior of living tissue. It is of value principally as a reference book to those whose work is at the basic science level.

JAY JACOBY, M.D.

Experimental Transplantation of Vital Organs. BY V. P. DEMIKHOV. Authorized translation from the Russian by Basil Haigh, M.A., M.B., B.Chir. Cloth. Pp. 285, with 74 illustrations. Consultants Bureau, 227 W. 17th St., New York City, 1962.

This monograph dealing with transplantation experiences contains seven interesting chapters. It deals with overall problems of transplantation of tissues and organs, including altered physiology and circulation following such procedures. A survey of the literature on transplantation of tissues and organs is presented to bring the reader up-to-date as to the status of work on this problem.

The book is written in a style that makes for easy reading, and the reviewer gets the impression that the material is entirely factual. Techniques of heart and lung transplantation, as well as transplantation of the extremities, are presented. Various methods employed in the transplantation of these organs are described and discussed. Both immunological and physiological alterations are described in detail. Methods of value in the transplantation of these organs, such as the use of artificial circulation, cross circulation, etc., are presented. A very adequate bibliography of both Russian and non-Russian literature is included. The 74 illustrations are of good quality and adequately supplement the text.