ments leading to this were given. Obviously in a text of this type the authors have had to be very selective in their choice of examples of the numerous applications; they have succeeded admirably in finding examples which illustrate the scope of the techniques as well as providing interesting biological information.

The text would have been improved by including some consideration of conformational studies of small molecules of biological interest using spin–spin coupling constants and some studies of ligand binding to proteins. In general however the authors have provided an impressive coverage of the major areas of application including studies of protein and transfer RNA conformations and structures, protein unfolding, protein–protein interactions, protein hydration, metalloproteins, spin-labelled proteins and studies of phospholipid membranes.

This book can certainly be recommended to students and teachers wishing to learn more about the usefulness of magnetic resonance techniques in biology. **J. Feeney**

Dr Feeney is a member of the scientific staff in the Division of Molecular Pharmacology at the National Institute of Medical Research, London, UK.

BOOKS

ON PURE AND APPLIED SCIENCE

Books reviewed or mentioned in this journal are available from stock.

Catalogues on application.

Please state interests.

SCIENTIFIC LIBRARY

ANNUAL SUBSCRIPTION from £5.00

Reduced rates for multiple subscriptions

Available in U.K. only

Prospectus free on request

H.K. LEWIS & Co. Ltd.

LONDON: 136 GOWER STREET WC1E 6BS

Telephone: 01-387 4282

Circle No. 08 on Reader Enquiry Form.

Immunology of reproduction

Immunobiology of Trobophlast. (Clinical and Experimental Immunoreproduction, 1.) Edited by R. G. Edwards, C. W. S. Howe and M. H. Johnson. Pp. x+284. (Cambridge University: Cambridge, London and New York, August 1975.) £6.

THIS volume represents the papers and discussion of a meeting held in January 1974 in the Physiology Laboratory, Cambridge, UK, and is the first of a series of meetings held on specific topics of immunoreproduction in association with the activities of the International Coordination Committee for the Immunology of Reproduction. All the participants were either British or were visiting Britain.

The papers all, in one way or another, address themselves to the key fact that the foetus is able to survive in the uterus in spite of the antigenic disparity which by rights should lead to its rejection as an allograft. Papers by A. C. Allison, by M. H. Johnson, by K. D. Bagshaw and S. Lawler, and by W. P. Faulk *et al.* document the complex antigenicity of the developing trophoblast, placenta and foetus. Details of trophoblast differentiation are described by R. L. Gardner and by W. D. Billington. The trophoblast and placental function in prevention of cell traffic and transfer of antigens and antibody is discussed by M. Adinolfi, whereas endocrine effects on the immunological consequences of implantation of the antigenically foreign foetus are described by R. Borland *et al.* W. R. Allen reports on the complex endocrinological and immunological features accompanying implantation and foetal development in the mare. Two extensive papers, one an overview of lymphocyte physiology by C. W. S. Howe, the other a review of the complex and often divergent observation on the effect of antigenic disparity on placental size, implantation and embryonic survival of mammalian embryos by A. McLaren complete the volume.

It is remarkable that in spite of the limited number of papers, the volume represents well the current state of knowledge in this field. The more comprehensive papers are doubtlessly the most valuable in that they focus in depth on the problems of trophoblast immunobiology, and in depth consideration of such problems is a luxury permitted all too infrequently in a time of increasing page charges and decreasing page allowances. The additional feature of publishing the discussion comments following each paper is especially welcome, for it provides the reader with a feeling for the current state of acceptance of or disagreement with the views expressed by the authors.

The volume is a most valuable addition to the literature in the fields of reproductive biology and of immunology. **Robert Auerbach**

Robert Auerbach is Professor of Zoology at the University of Wisconsin, Madison, Wisconsin.

Membrane series

Biological Membranes. Vol. 3. Edited by Dennis Chapman and Donald F. H. Wallach. Pp. x+362. (Academic: London and New York, May 1976.) £11; $27.75.

WHEN *Biological Membranes, Physical Fact and Function* was published in 1968 there was no indication that it was to become volume 1 of a series which has now reached volume 3 and seems likely to continue. The publication of such volumes at irregular intervals of several years tends to delay some of the contributions unfairly and to provide an irregular and unpredictable coverage of the field. Nevertheless, in the book under review, the editors have collected together a group of six interesting topics and appropriate authors, most of whom seem to have written their contributions during 1974. The chapters are, in general, authoritative and well presented, and on such a variety of topics as to provide something of interest for everyone. Most libraries and many individuals may therefore be persuaded to continue to collect the series.

Two of the new topics, concerned with neutron diffraction and scattering and with the use of lanthanides to probe the role of calcium in membranes, are still at the exploratory stage and are reviewed largely to emphasise their potential for membrane studies. Other chapters discuss lipid and protein mobilities in membranes and the exchange of lipids between membranes and lipoproteins. The two remaining chapters provide a comprehensive review of nuclear membrane structure and function, and a specialist assessment of the specificity and significance of interactions between plasma membranes and gammaglobulins. The author index is four times as long as the subject index even though the latter includes all but three of the rare earth elements (all listed on p154). **J. B. Finean**

Dr Finean is a Reader in Molecular Biology in the Department of Biochemistry at the University of Birmingham, UK.

©1976 Nature Publishing Group