Book Reviews


The paper ‘Immunological function of the thymus’ by J. F. A. P. Miller has been published in 1961. In this paper (which was preceded by a number of important publications by Miller on the relation of thymic function to the genesis of murine leukaemia) the decisive role of the thymus in the development and maintenance of immunological faculty was clearly established and carefully proved by the results of ingeniously designed experiments. Miller’s paper and that by C. Martinez, J. Kersey, B. W. Papermaster and R. A. Good on ‘Skin homograft survival in thymectomized mice’, which had been published in 1962 shortly after Miller’s, focused interest on this field. Already in November 1962 R. A. Good was able to organize an international conference on ‘The thymus in immunobiology’, the proceedings of which consist the present volume. At this conference 36 papers were presented by 72 contributors. The papers and discussions cover all pertinent problems, such as the anatomy and chemistry of the thymus and related organs (the bursa of Fabricius and the appendix), their role in lymphocyte-poiesis, in the development of immunological competence and the immune responses, such as antibody formation, immediate and delayed allergic reactions, homograft rejection and the Simonsen-phenomenon. Several papers are devoted to a thorough analysis of the post-thymectomy wasting disease, in different species. Finally the role of the thymus in experimental and clinical diseases such as leukaemia, autoimmune diseases and myasthenia, is discussed.

The volume presents the entire background and the standing of thymus research related to immunology at the end of 1962, in a comprehensive and admirable way. Since then much progress has been achieved, not least due to the untiring efforts of Miller and his group and Good and his associates. Therefore, the material presented in this volume is not wholly up to date any more. This makes, however, this expertly edited and very well produced book by no means obsolete. It will remain for a long time to come, the firm basis of knowledge and a reliable guide in this field of growing importance and complexity.

Paul Kallós, Helsingborg


Molecular Pharmacology Volume II consists of three parts—a molecular approach to olfaction, the molecular basis of cancer chemotherapy, and receptor theory in enzymology. It will be of interest to all who deal with the biological activity of compounds. Each part is written by a specialist and the material is of the highest quality. Yet there are many instances in the 280 pages where the following expression occurs—‘very little information about the structure of receptors has so far been found’, and another important phrase quoted is ‘no convincing evidence has been presented that cells acquire new functions even when treated with drugs or under carcinogenic influence’. The chapter on the chemotherapy of cancer gives a first-class description of the significance of nucleic acids in cellular proliferation whilst that on enzymology ex
plains, in complicated mathematical terms, substrate inhibition, non-competitive interaction, and competitive interaction. The book forms a useful companion to Volume I of the Series (A Molecular Approach to General Pharmacology) and we all look forward to the next volume. G. B. West, London

Book Reviews

319


The Transaction of the World Asthma Conference, which was held in March in Eastbourne, are now available in print. The two first sessions were devoted to the Natural History of Asthma and Respiratory Function in Asthma respectively. 9 lectures were presented on these subjects.

Session 3, Fundamental Approach to the Mechanisms of Asthma, is in my opinion the most valuable. There is a masterful paper by D. R. Stanworth on antigens and antibodies in immediate type allergy. This is a lucid presentation of his fundamental results regarding the nature of horse-dandruff allergen and its corresponding reaginic antibody. Stanworth could corroborate the findings of Van Arsdel and Sells that normal human leucocytes following passive sensitization with serum of allergic patients or purified reaginic antibodies and subsequent challenge with allergen release minute (about 0.01 µg) but spectrofluorometrically measurable amounts of histamine. This in vitro method is very promising, indeed. Another very interesting paper in this section was presented by W. E. Brocklehurst, on the possible role of SRS-A and bradykinin in anaphylaxis and asthma. Further developments in this special field are awaited with great interest.

R. G. White contributed with a lecture on the role of mycobacterial components in altering the immunological responses. Certain peptidoglycolipids (pgl) enhance such responses and in guinea-pigs also cause a shift in immunoglobulin production. Protein antigens induce in guinea-pigs production of γ1 antibodies, the addition of pgl shifts the production to γ2. Unfortunately, this important paper is not published in entirety.

Sessions 4–9 were devoted to clinical problems. This part of the Transactions is, in my opinion, not very rewarding. I would like, however, to mention A. W. Frank-land’s lucid introduction to the discussion on asthma and infection and D. B. Maculay’s paper on seasonal asthma, which contain much useful information. B. M. Cohen discussed in an interesting presentation the value of different micro-aerosols in the treatment of asthma and corroborated the view that isoproterenol + phenylephrine ranks first and isopreterenol second in efficacy. L. Egkmann presented the results of unilateral glomectomy in asthmatics and claimed ‘a very good result for two to five years’ in 50% of 40 cases so treated. Unfortunately, no details are given. It is very surprising that this operation, which lacks sound theoretical foundation, seems to be performed at many places, in spite of the severe and well founded criticism against it.

This quite expensive book can be recommended for experienced and critical readers. Paul Kallós. Helsingborg