to polysaccharide antigens of bacterial origin; (ii) the occurrence and significance of antigenic cross reactions in nature; and (iii) the influence of viruses on tissue antigenicity and the formation of new cellular antigens.

The contributions in the first group emphasize the important role of chemical constitution of polysaccharides in determining their immunological specificity and cross reactions and serve as a broad background for the entire conference. Transplantation antigens appear to be protein in nature, and although the "cross reactions" of proteins are more complicated, it would have been profitable, in a conference concerned with tissue transplantation, to have some discussion of the determinants and cross reactions among proteins. Some applications of in vitro cross reactions related to transplantation and autoimmune phenomena are presented in the papers of the second group. That mice, rats, and rabbits share with guinea pigs the ability to develop skin allograft sensitivity after treatment with certain streptococcal antigens was suggested to be related to a similarity between chemical structures in the bacterial and in the mammalian cell membranes. Similarly, investigations of the occurrence of streptococcal antigens immunochemically related to mammalian heart and kidney antigens has led to the view that induction of autoimmunity to heart tissue (rheumatic fever) may result from infection by group A Streptococcus.

The role of viral infection in inducing the formation of new mammalian cellular antigens showed that more than one type of new antigen can arise as a result of cell-virus association. The last few papers in the conference dealt with aspects of the phylogeny and biological significance of tissue antigens.

The major contribution of this book is that in it are brought together the presentations and verbatim discussions of about 50 individuals on immunological cross reactions and how they might relate to tissue transplantation. Few new data are presented, and the book is recommended mainly for pointing out the need for more basic information about the biochemical and cellular aspects of transplantation immunity at a time when sporadic practical achievements are being widely hailed.

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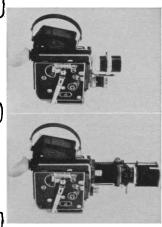
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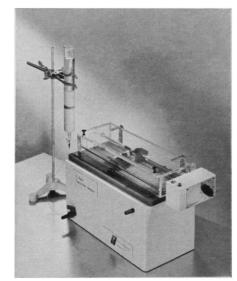
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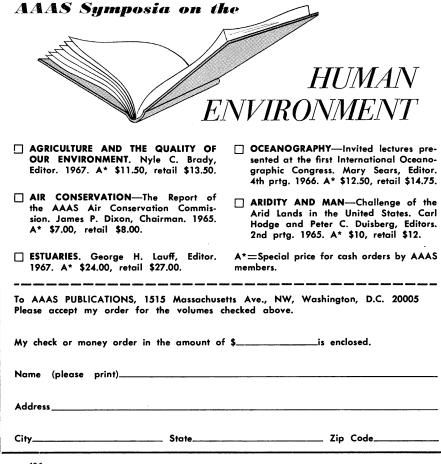
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