Hyaluronic acid in synovial cells


Book reviews


It is indeed timely that the Clinical Application of Monoclonal Antibodies has been printed in the same year that the Nobel Prize for Medicine was awarded to Drs Milstein and Kohler. Their technique of fusing single antibody producing spleen cells from immunised rodents with myeloma cells capable of secreting antibodies and growing continuously in culture, has made available unlimited quantities of monoclonal antibodies (MoAbs) of exquisite specificity. This publication describes the application of some of these antibodies to a variety of different clinical fields.

Monoclonal antibodies of human origin have obvious advantages over those of rodents in their application as systemic therapeutic agents. The technical problems that still bedevil the switch to the production of human hybridomas are outlined in the opening chapter by Dr K Sikora.

Another disappointment in the study of monoclonal antibodies has been the failure in the search for HLA typing reagents as described by Julia and Walter Bodmer. The MoAbs that have been produced reacted mainly with the framework structures of class I or II molecules irrespective of their allospecificity. Although this 'monomorphic' property aided the elucidation of the protein and genomic structure of the HLA genes and their products, allospecific reagents have not become available for general use in tissue typing laboratories.

However, this publication concentrates on the advances in the clinical application of MoAbs, and I have briefly outlined below the areas covered by the various expert contributors.

Dr P Beverly describes the use of monoclonal antibodies for the analysis of T cell products that have a regulatory role in the immune system.

The combination of MoAbs and fluorescent activated cell sorter has enabled Dr Greaves and his colleagues to identify, isolate, and characterise a variety of rare cells in the early haemopoietic cell differentiation stage in leukaemias.

Dr Jannossy illustrated the use of MoAbs to reduce the graft-versus-host reaction in recipients of bone marrow transplants by the use of a cocktail of anti T cell reagents.

Drns Dongworth and McMichael have used monoclonal antibodies to inhibit in-vitro functional assays with virus infected cells that correspond to in-vivo immune mechanisms.

Dr P Stern describes the application of MoAbs to cell surface antigen expression on human teratoma cells. It is in the application of MoAbs to tumour immunology that cancer therapy may be advanced. In this respect chapters on the application of passive immunisation of MoAbs in cancer therapy (Dillman and Royston) and tumour imaging and targeting (Sikora and colleagues) are particularly exciting.

The uses of MoAbs in parasite (S Cohen), viral and bacterial (Porterfield and Talin) infection, and neural antigens (J Becker) are also described.

Finally, of specific rheumatological interest Isenberg and his colleagues use MoAbs to understand and dissect autoimmunity in systemic lupus erythematosus, myasthenia gravis, and Graves’ disease.

J Sachs


The manual of fracture bracing is a delightful little book. It contains a very brief and readable review of the conservative treatment of fractures culminating in bracing, and it then goes on in quite adequate detail to discuss the materials and the methods used in the most common fracture sites, namely tibia, femur, forearm, and humerus.

Any book on such a subject by two authors will of necessity be slightly idiosyncratic, but this detracts not at all from the efficacy of what they propound. I find the description of the techniques very clear, and I have no doubt that this book should be to hand for the orthotist or plaster technician involved in day to day fracture bracing.

J B King