
Our knowledge of the immunoglobulins has expanded greatly over the years and recently, as the three-dimensional structures became known, much greater emphasis has been placed on understanding the molecular processes involved in generating and regulating immunoglobulin expression. This book offers a comprehensive insight into these mechanisms, provided by leading researchers in the field.

The format of the book is not particularly user friendly, being so tightly packed with information, but the comprehensive referencing associated with each chapter is excellent. Indeed, it is a pity that the constant use of author and date reference citations breaks up otherwise eminently readable text.

The coverage of B cell development is extensive and detailed, encompassing in several chapters the complex roles of the B cell receptor, cytokines, and stromal cell influences. The presentation is marred only in some instances by overcomplex diagrams that could have been more informative if presented better. The chapters on immunoglobulin repertoires in a variety of species provides a basis for solid comparisons of the molecular mechanisms used to generate diversity and the evolutionary development of the immunoglobulins. It is good to see a whole chapter devoted to the lower vertebrates, providing a certain perspective to the human and mouse systems so fully described elsewhere in the book. The unique contributions provided through studying immunoglobulin transgenic mice are discussed, as are B cell tolerance, and autoantibody V region use.

These topics, however, are not covered as extensively as the earlier chapters on developmental controls and organisation of immunoglobulin genes. I think this book is, on the whole, an excellent reference text for anyone wishing to know more about the immunoglobulins and I would certainly recommend it.

FADDY TIGME


Molecular Diagnosis of Cancer is a book from the Methods in Molecular Medicine series. It is targeted at clinicians and scientists as an introduction to the application of molecular pathology in a diagnostic setting.

The book is split into three sections. Part I is dedicated to the use of PCR based techniques in the diagnosis of haematological malignancy. This section illustrates the application of specific methods to the detection of genetic abnormalities. Chapters include PCR for gene rearrangements in minimal residual disease in childhood ALL and for t(14;18) translocation in follicular lymphoma, reverse transcriptase PCR for detection of BCR-ABL in haematological malignancies, PML/RAR-a in acute promyelocytic leukaemia, NPM-ALK for t(2;5) in non-Hodgkin’s lymphoma, and 11.q23 breakpoints involving the MLL gene in acute leukaemia.

Part 2 gives examples of the application of molecular biological techniques to solid tumours. This covers identification of mutations of the tumour suppressor genes in retinoblastoma and Wilms’ tumour (WT1).

Part 3 examines general techniques for cancer analysis. This section gives examples of molecular-based techniques that can be applied to all areas of the molecular biology of tumours. Techniques covered in this section include single-strand conformation polymorphism mutation analysis, fluorescence in situ hybridisation, comparative genomic hybridisation, in situ hybridisation, and apoptosis detection by DNA analysis.

Each section of the book uses specific examples to illustrate the efficacy of the techniques employed by the authors. Each chapter gives full details of the background for the experimental work, the reagents required, and protocols for the methods. This form of presentation is attractive both to newcomers to the field and those with some experience in diagnostic molecular pathology. A notable absence is the use of in situ PCR based techniques, which are becoming of interest in many areas of pathology.

The use of specific diagnostic situations to demonstrate the use of a technique helps to provide a model for how each method can be applied, and gives an insight into how it may be applied to diagnosis and monitoring of malignant disease.

The book is well thought out and provides a suitable level of information to anyone interested in the use of molecular pathology in diagnosis. It is interesting both as a general text and as a guideline for setting up specific diagnostic tests. In general this book is very informative while still being easy to read. I would recommend it to anyone who has an interest in molecular diagnosis in pathology.

J OATES