ahead', the authors argue the need to build an integrated model for cell migration.

As is the trend in recent volumes of the *Annual Review of Cell and Developmental Biology*, all reviews have excellent and informative illustrations. Figures have been designed by the authors based on their perception of a particular area. Very few figures have been adapted from original papers. Most of the references (limited to 175) are recent and most of the reviews do not dwell on historical background, even in areas that have been the subject of extensive investigations for several decades. In some reviews, the information provided in the tables would be informative to researchers in the field. The unanswered questions posed in the areas where research has been active for decades, though from the perspective of the authors of the reviews, would be of interest to researchers who intend to initiate work in these areas. Information such as related articles in other *Annual Reviews* and article titles in the *Annual Review of Cell and Developmental Biology* in volumes for the past five-years is an excellent value-addition.

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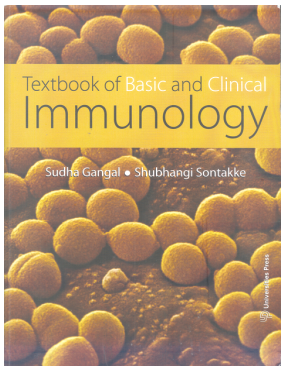


Textbook of Basic and Clinical Immunology. Sudha Gangal and Subhangi Sontakke. Universities Press (India) Pvt Ltd., 3-6-767/1/A and 3-6-754/1, Himayatnagar, Hyderabad 500 029, India. 2013. 572 pp. Price: Rs 800.

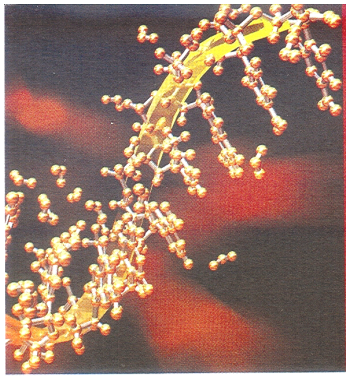
The book under review is a useful addition to immunology literature. The book is divided into 27 chapters dealing with major sub-areas of immunology. The introductory chapter gives a historical perspective of immunology and essentially provides a summary of different areas covered in the book. This book is organized in three parts: the first 16 chapters deal with basic immunology, chapters 17 and 18 deal with immunological methods and chapters 19 to 26 cover clinical immunology. The final chapter is on vaccine. The subject matter is organized in a way that it holds the attention of the reader. Avoidance of unnecessary jargons in the book makes the subject of immunology truly student-friendly.

The chapters on basic immunology deal with innate immunity, cells and organs of the immune system, antigens, antibodies, antigen presenting cells and antigen presentation, major histocompatibility complex, B cell biology, T cell biology, immunoglobulin gene rearrangement, T cell receptor and T cell receptor gene rearrangement, cytokines, chemokines, cell signalling and trafficking, complement system, and effector function of antibodies, and cells of the immune system. The subjects are concise and ensure that the reader will not lose interest half way through. Special mention may be made about the chapter on complement, which emphasizes salient feature of complement structure, function and chemistry for easy understanding. It would have been useful to have a chapter on immunological memory for more complete treatment of the subject.

The two chapters dealing with immunological methods will provide the students an introduction to immunological techniques and enable them to find more specific applications in detailed texts available elsewhere. This section, however, does not deal with important topics like immuno histochemistry, and immunocytochemistry. Cellular assays and monoclonal antibodies are well covered.

The chapters dealing with clinical immunology as well as general principles, also deal with immune response against specific diseases important in the Indian context. These diseases are tuberculosis, leprosy, pneumonia, influenza, AIDS, malaria, leishmaniasis, and filariasis. Immune responses against the causative organisms of these diseases have been described in some detail and would be useful for both students of medicine and immunology.

The chapter on tumour immunology describes basic biology of cancer and its



Nicked DNA molecule; source: OSDATA.

immunobiology. Students will get a good introduction to this important area. It will enable them to explore specialized texts in journals and other scholarly publications. The chapter on tolerance and autoimmunity deals with central and peripheral T and B cell tolerance, and their causes and consequences. Various factors like genetic, environmental, lifestyle, drugs and infections, suspected to have a role in autoimmunity have been discussed. Autoimmune diseases like myasthenia gravis, Grave's disease, Hashimoto's thyroiditis, insulin-dependent diabetes mellitus, systemic lupus erythematosus, rheumatoid arthritis and multiple sclerosis have been introduced. Immunological disorders like type I, II, III, IV hypersensitivity and diseases associated with different types of hypersensitivity have been described. Acquired and inherited immunodeficiency diseases are dealt in a separate chapter which various diseases, their causes, and the cells and molecules that are affected, are discussed in some detail. The last chapter of the book describes various types of vaccines, their delivery systems and highlights the challenges.

This book is useful both for medical students and basic biologists interested in immunology. The authors have done a commendable job. The quality of the book is summed up well in the foreword written by R. A. Mashelkar. This book should find a place in all libraries of medical schools, universities and science colleges. Serious students and teachers would much benefit having their own personal copy.

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