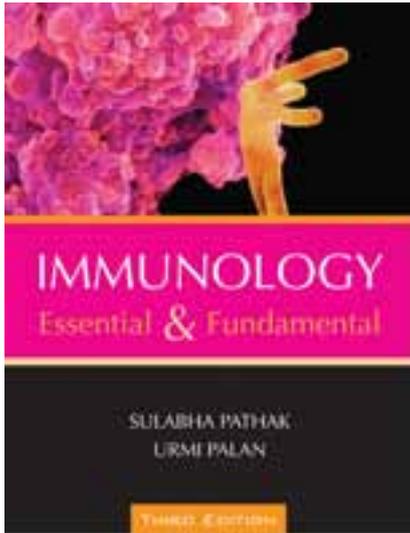


Immunology: Essential & Fundamental



Immunology is a rapidly advancing field; therefore the task for authors of immunology textbooks is certainly daunting! *Immunology, Third Edition* aims to give the reader a comprehensive overview of all aspects of immunology. The text is recommended for complete novices or educators, but is also a useful tool for immunologists needing a basic overview of a topic. The third edition incorporates developments in the field since the second edition and builds on popular features from previous editions as well. It also includes a new chapter focusing on infectious agents and the human's immune response to them. Following on from its predecessors, the textbook actively encourages readers to look at the big picture and think about immunology in terms of everyday human life and the role of immunology in health and disease, making the textbook easy to understand and relate to. The use of colourful diagrams, flowcharts, sidebars and tables that sum up features or functions are particularly helpful for a quick reference. The sidetracks are particularly good at encouraging the reader to apply immunology to health and disease scenarios, for example, the role of complement in health disease or the effect of smoking tobacco on innate immunity. This is a novel feature and really makes the textbook stand out from other immunology texts.

The book has 17 chapters covering a vast amount of detail in key areas such as innate immunity, adaptive immunity, tolerance, infection, as well as disease orientated chapters on the role of the immune system in cancer, autoimmunity, hypersensitivity and transplantation. The structure is logical, although at times the chapters for adaptive immunity appear a little broken up making it difficult to follow. However, considering the depth of detail the authors have provided on adaptive immunity, I think it would be difficult to condense this into fewer chapters. Each chapter starts with song lyrics (pointless, but I suppose nevertheless charming for students) and contains an introduction giving a general overview to the topic, followed by more concise, detailed subsections interspersed with colourful diagrams, summary boxes, mind maps and sidetracks. In this edition the figures have been greatly enhanced compared with earlier editions and this certainly makes complicated chapters more easily digestible for the reader. The inclusion of mind maps works well for those readers who prefer to visualise key facts rather than reading directly from the text, as well as providing a brief overview for those individuals just needing a quick reminder of a topic. Similarly, the use of flow charts is creative and particularly helpful for explaining complicated pathways or processes that can often result in different effects depending on the action taken by the immune system; for example the events following a pathogen encounter or B-cell differentiation. Although some readers might find the 'linking back sections' a distraction, I can appreciate that understanding the originations of fundamental immunology concepts and the theories that have led to our current understanding today to be important and these sections allow the reader to take a historical perspective on immunology.

Probably the most useful sections of the textbook appear at the back under 'appendix' and 'tools of the trade'. The appendix gives a comprehensive list of all the CD antigens (their cellular expression and known functions; a useful tool not only for complete novices but even immunology experts). all the cytokines mentioned throughout the book (their source and function) and a list of Nobel Prize winning immunologists. The section titled 'tools of the trade' is excellent, although I'm confused why this wasn't made into a chapter or at the very least incorporated into the various chapters. This would have enabled the reader, particularly novice immunologists, to observe a clear link between the concepts outlined within this book and their practical application in the lab. It's a useful tool even for those practising immunologists amongst you! It covers all the main immunology techniques, principles and methodology behind the techniques.

Overall, the third edition of immunology is a well written and concise textbook covering a vast amount of subject matter, the use of colourful figures, flow charts, mind maps, highlighted text and wide margins make the format attractive, easy to read and easy to understand. However, what makes this textbook stand out in comparison to other popular immunology texts is the use of sidetracks. They really help the reader to think outside the box and think about immunology in the wider context of health and disease. The textbook is a must for any aspiring immunology students!

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