

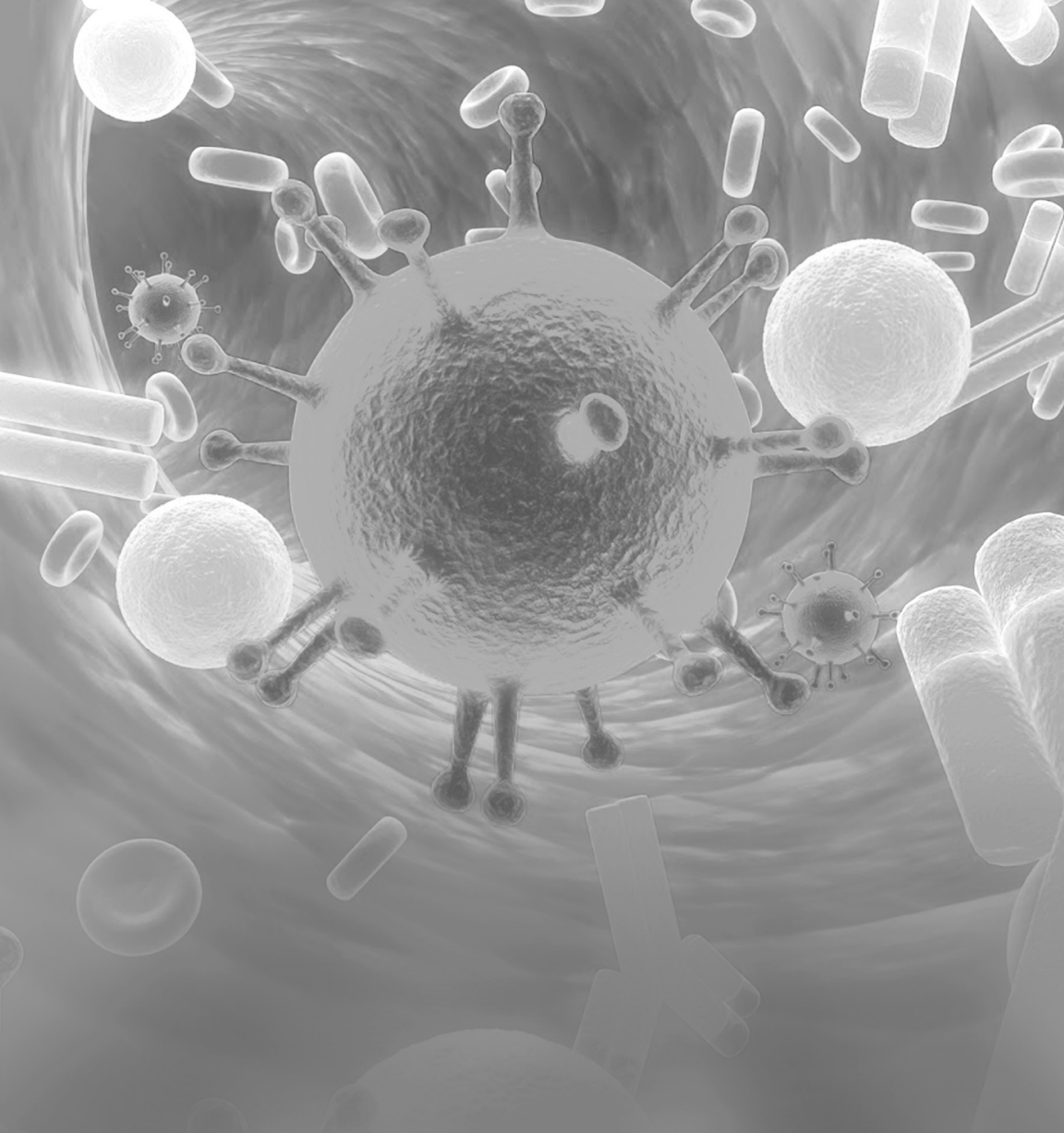


# Immunology

## An Introductory Textbook

edited by **Anil K. Sharma**





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PAN STANFORD  PUBLISHING

*Published by*

Pan Stanford Publishing Pte. Ltd.  
Penthouse Level, Suntec Tower 3  
8 Temasek Boulevard  
Singapore 038988

Email: [editorial@panstanford.com](mailto:editorial@panstanford.com)

Web: [www.panstanford.com](http://www.panstanford.com)

**British Library Cataloguing-in-Publication Data**

A catalogue record for this book is available from the British Library.

**Immunology: An Introductory Textbook**

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ISBN 978-981-4774-51-2 (Hardcover)

ISBN 978-1-315-15063-5 (eBook)

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## Preface

Immunology has been consistently fascinating the scientific community to find out ways to counter many pathogens and other antigenic challenges we face time to time. It acts as a sort of bridge between sciences such as biochemistry, cell biology, structural biology, microbiology, biotechnology, genetics, and medicine. This subject has been referred to as a broad branch of biomedical science covering the study of all aspects of the immune system dealing with its physiological functioning in health and disease. This textbook presents a broader overview of the immune system in a logical and easy-to-understand manner and is a useful resource for undergraduate and postgraduate students of biotechnology, immunology, biosciences, and microbiology. The whole text has been divided into 11 chapters. It begins with an introduction to the immune system, organs, and cells of the immune system and further advances to proteins, immunogens, antibodies, and antibody diversity. Topics such as major histocompatibility complex, immune system of the brain, and immunological disorders have been elegantly covered in the book, increasing its broader perspective. Moreover, tumor immunology, immunoinformatics, vaccines, and principals of immunodetection are some other highlights of this book that will attract the broader attention of students and the research fraternity. The book also presents the latest trends and the scope of immunocomplex and immunodetection approaches for the appropriate diagnosis of diseases. It provides comprehensive, accessible, up-to-date information about immunological perspectives and an instant access to a wealth of data for biotechnologists, biomedical scientists, biochemists, molecular biologists, and students from diverse streams of biotechnology, microbiology, structural biology, and genetics.

I thank all the contributors of this book for their valuable scientific contributions and the reviewers for their precious comments and suggestions for improving the quality and scientific perspectives of the chapters. Finally, I would like to dedicate this book to my mother, who has been consistently fighting with

pituitary macroadenoma, which severely deteriorated her vision, making me go through various immunological aspects associated with the disease and further prompting me to come up with this book for the benefit of students and, above all, for mankind.

**Anil K. Sharma**