



Enhanced
DIGITAL
VERSION
Included

Basic IMMUNOLOGY

7TH EDITION

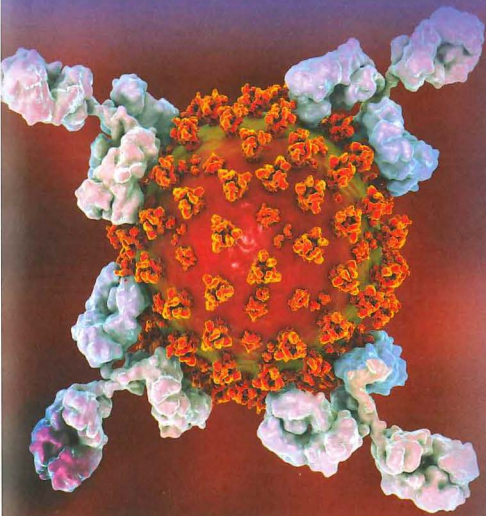
FUNCTIONS AND DISORDERS OF THE IMMUNE SYSTEM

ABUL K. ABBAS

ANDREW H. LICHTMAN

SHIV PILLAI

ELSEVIER



สำนักหอสมุด มหาวิทยาลัยเชียงใหม่

๒ 167 04356

๐ 135 76426

๖ 226 84839

7TH EDITION

Basic IMMUNOLOGY

FUNCTIONS AND DISORDERS
OF THE IMMUNE SYSTEM

Abul K. Abbas, MBBS

Emeritus Professor
Department of Pathology
University of California San Francisco
San Francisco, California

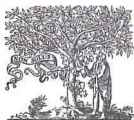
Andrew H. Lichtman, MD, PhD

Professor of Pathology
Harvard Medical School
Brigham and Women's Hospital
Boston, Massachusetts

Shiv Pillai, MBBS, PhD

Professor of Medicine and Health Sciences and Technology
Harvard Medical School
Massachusetts General Hospital
Boston, Massachusetts

Illustrations by David L. Baker, MA



ELSEVIER

CONTENTS

- 1 Introduction to the Immune System, 1**
Nomenclature, General Properties, and Components
 - 2 Innate Immunity, 23**
The Early Defense Against Infections
 - 3 Antigen Presentation to T Lymphocytes and the Functions of Major Histocompatibility Complex Molecules, 53**
What T Lymphocytes See
 - 4 Antigen Recognition in the Adaptive Immune System, 76**
Structure of Lymphocyte Antigen Receptors and Development of Immune Repertoires
 - 5 T Cell—Mediated Immunity, 100**
Activation of T Lymphocytes
 - 6 Effector Mechanisms of T Cell—Mediated Immunity, 126**
Functions of T Cells in Host Defense
 - 7 Humoral Immune Responses, 144**
Activation of B Lymphocytes and Production of Antibodies
 - 8 Effector Mechanisms of Humoral Immunity, 167**
Elimination of Extracellular Microbes and Toxins
 - 9 Immunologic Tolerance and Autoimmunity, 187**
Self—Nonself Discrimination in the Immune System and Its Failure
 - 10 Tumor and Transplantation Immunology, 204**
Immune Responses to Cancer Cells and Normal Foreign Cells
 - 11 Hypersensitivity, 227**
Disorders Caused by Immune Responses
 - 12 Immunodeficiency Diseases, 245**
Disorders Caused by Defective Immunity
- Glossary, 262
Appendix I: Principal Features of Selected CD Molecules, 293
Appendix II: Cytokines, 302
Appendix III: Clinical Cases, 308
Answers to Review Questions, 322
Index, 334