

# Contents

## **PART I AN INTRODUCTION TO IMMUNOBIOLOGY AND INNATE IMMUNITY**

Chapter 1	Basic Concepts in Immunology	1
Chapter 2	Innate Immunity: The First Lines of Defense	37
Chapter 3	The Induced Responses of Innate Immunity	75

## **PART II THE RECOGNITION OF ANTIGEN**

Chapter 4	Antigen Recognition by B-cell and T-cell Receptors	127
Chapter 5	The Generation of Lymphocyte Antigen Receptors	157
Chapter 6	Antigen Presentation to T Lymphocytes	201

## **PART III THE DEVELOPMENT OF MATURE LYMPHOCYTE RECEPTOR REPERTOIRES**

Chapter 7	Signaling Through Immune-System Receptors	239
Chapter 8	The Development and Survival of Lymphocytes	275

## **PART IV THE ADAPTIVE IMMUNE RESPONSE**

Chapter 9	T Cell-Mediated Immunity	335
Chapter 10	The Humoral Immune Response	387
Chapter 11	Dynamics of Adaptive Immunity	429
Chapter 12	The Mucosal Immune System	465

## **PART V THE IMMUNE SYSTEM IN HEALTH AND DISEASE**

Chapter 13	Failures of Host Defense Mechanisms	509
Chapter 14	Allergy and Allergic Diseases	571
Chapter 15	Autoimmunity and Transplantation	611
Chapter 16	Manipulation of the Immune Response	669
Appendix I	Immunologist's Toolbox with Immunological Constants	717
Appendix II	CD Antigens	763
Appendix III	Cytokines and Their Receptors	779
Appendix IV	Chemokines and Their Receptors	782
Biographies		784
Glossary		786
Index		823