

Fundamental Immunology: 978-0-7817-6519-0

SECTION I:INTRODUCTION

The Immune System

SECTION II:ORGANIZATION AND EVOLUTION OF THE IMMUNE SYSTEM

Lymphoid Tissues & Organs
Evolution of the Immune System

SECTION III:IMMUNOGLOBULINS AND B LYMPHOCYTES

Immunoglobulins: Structure & Function
Antigen Antibody Interactions and Monoclonal Antibodies
Immunoglobulins: Molecular Genetics
Lymphocyte Development
B Lymphocyte Signaling Mechanisms and Activation
B Lymphocyte Biology

SECTION IV:T LYMPHOCYTES

T Cell Antigen Receptors
T Lymphocyte Signaling Mechanisms and Activation
Development of T Cells
Peripheral T Lymphocyte Responses and Function

SECTION V:THE INTERSECTION OF INNATE AND ADAPTIVE IMMUNITY

Innate Immunity
Dendritic Cells
Natural Killer Cells
NK T Cells and Other Innate-Like T and B Lineages
Macrophages and Phagocytosis
Major Histocompatibility Complex (MHC) Molecules: Structure, Function, and Genetics
Cell Biology of Processing and Presentation

SECTION VI:REGULATION AND EFFECTOR FUNCTIONS OF THE IMMUNE RESPONSE

Immunogenicity and Antigen Structure
Fc Receptors and Their Role in Immune Regulation and Inflammation
Type I Cytokines and Interferons and Their Receptors
Interleukin-1 Family of Ligands and Receptors
TNF-related Cytokines in Immunity,
Chemokines
Programmed Cell Death
Immunologic Memory
Immunological Tolerance
Regulatory/Suppressor T Cells
The Mucosal Immune System
Neural Immune Interactions
Marketon and Esther Sternberg
Complement
Cytotoxic T Lymphocytes

SECTION VII:IMMUNITY TO INFECTIOUS AGENTS

The Immune Response to Parasites
Immunity to Viruses
Immune Responses to Intracellular Bacteria
Immunity to Extracellular Bacteria,
Immunology of HIV Infection

SECTION VIII:IMMUNOLOGIC MECHANISMS IN DISEASE

Systemic Autoimmunity
Organ-Specific Autoimmunity
Immunological Mechanisms of Allergic Disorders
Transplantation Immunology
Tumor Immunology
Primary Immunodeficiency Diseases

INDEX

Close this Window