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A Historical Perspective of Immunology	Introduction to Immunology
Important Concepts for Understanding Mammalian Immune Response (Innate vs. Adaptive)	Introduction to Immunology
Introduction to Dysfunctional Immune System	Introduction to Immunology
Introduction to Immune System	Introduction to Immunology
Innate vs. Adaptive Immunity	Introduction to Immunology
Types of Adaptive Immunity	Introduction to Immunology
Characteristics of Adaptive Immune Response	Introduction to Immunology
What Types of Cells are Involved in Immune System	Introduction to Immunology
What Types of Tissues of the Immune System Exist	Introduction to Immunology
Introductory Overview of Immune Response to Microbes	Introduction to Immunology
Features of Innate Immune Response	Innate Immunity: Early Defense
Cellular Receptors (Toll-like, NOD-like) for Microbes	Innate Immunity: Early Defense
Components of Innate Immunity	Components of Innate Immunity
Phagocytes: Neutrophils and Monocytes and Macrophages	Components of Innate Immunity
Dendritic Cells	Components of Innate Immunity
Mast Cells	Components of Innate Immunity
Innate Lymphoid Cells	Components of Innate Immunity
Natural Killer Cells	Components of Innate Immunity
Complement System and other Plasma Proteins of Innate Immunity	Components of Innate Immunity
What are Cytokines and How They Work in Innate Immunity	Components of Innate Immunity
What is Inflammation	Innate Immune Reactions
Antiviral Defense System of Innate Immune Reactions	Innate Immune Reactions
Regulation and Evasion of Microbes from Innate Immunity	Innate Immune Reactions
How Does Innate Immune System Stimulate Adaptive Immune Response	Innate Immune Reactions
Antigens Recognized By T Lymphocytes	Antigen Capture and Presentation to Lymphocytes
Capturing of Antigens By Antigen-Presenting Cells	Antigen Capture and Presentation to Lymphocytes
Structure & Function of Major Histocompatibility Complex Molecules	Antigen Capture and Presentation to Lymphocytes
Characteristics of MHC Genes and Proteins	Antigen Capture and Presentation to Lymphocytes
Processing and Presentation of Protein Antigens	Antigen Capture and Presentation to Lymphocytes
Antigen Recognition By B Cells and Other Lymphocytes	Antigen Capture and Presentation to Lymphocytes
Other Functions of Antigen Presenting Cells	Antigen Capture and Presentation to Lymphocytes
Antigen Receptors of Lymphocytes	Antigen Capture and Presentation to Lymphocytes
Antibodies: Structure and Properties (IgG, IgM, IgA, IgE, IgD)	Antibodies: Antigen Recognition in the Adaptive Immune System
Binding of Antigens By Antibodies	Antibodies: Antigen Recognition in the Adaptive Immune System
Monoclonal Antibodies	Antibodies: Antigen Recognition in the Adaptive Immune System

T Cell Antigen Receptor (TCR)	Antibodies: Antigen Recognition in the Adaptive Immune System
Development of Immune Repertoires	Antibodies: Antigen Recognition in the Adaptive Immune System
Production of Diverse Antigen Receptors	Antibodies: Antigen Recognition in the Adaptive Immune System
Lymphocyte Development	Antibodies: Antigen Recognition in the Adaptive Immune System
Maturation and Selection of B Lymphocytes	Antibodies: Antigen Recognition in the Adaptive Immune System
Maturation and Selection of T Lymphocytes	Antibodies: Antigen Recognition in the Adaptive Immune System
T Cell-Mediated Immunity And Their Activation By Cell-Associated Antigens	T-Cell Mediated Immunity
Phases of T-Cell Responses	T-Cell Mediated Immunity
Recognition of MHC-Associated Peptides	T-Cell Mediated Immunity
Role of Adhesion Molecules in T-Cell Responses	T-Cell Mediated Immunity
Role of Costimulation in T Cell Activation and Activation of CD8+	T-Cell Mediated Immunity
Biochemical Pathways of T Cell Activation	T-Cell Mediated Immunity
Secretion of Cytokines and Expression of Cytokine Receptors	T-Cell Mediated Immunity
Differentiation of Naive T Cells Into Effector Cells & Development of Memory T Lymphocytes	T-Cell Mediated Immunity
Migration of T Lymphocytes in Cell-Mediated Immune Reactions	T-Cell Mediated Immunity
Decline of the Immune Response	T-Cell Mediated Immunity
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Development and Funtions of CD4+ Effector T Lymphocytes	T-Cell Mediated Immunity
Th1 Cells: Development and Properties	T-Cell Mediated Immunity
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Development and Funtions of CD8+ Effector T Lymphocytes	T-Cell Mediated Immunity
Resistance of Pathogenic Microbes to Cell-Mediated Immunity	T-Cell Mediated Immunity
Activtion of B Lymphocytes and Production of Antibodies	B Lymphocyte Mediated Immunity Humoral Immune Responses
Phases and Types of Humoral Immune Responses	B Lymphocyte Mediated Immunity Humoral Immune Responses
Stimulation of B Lymphocytes By Antigen & Antigen-Induced Signaling in B Cells	B Lymphocyte Mediated Immunity Humoral Immune Responses
Role of Innate Immune Signal in B Cell Activation & Functional Consequences of B Cell Activation By Antigen	B Lymphocyte Mediated Immunity Humoral Immune Responses
Functions of Helper T Lymphocytes in Humoral Immune Responses: Activation & Migration	B Lymphocyte Mediated Immunity Humoral Immune Responses
Heavy-Chain Isotype (Class) Switching	B Lymphocyte Mediated Immunity Humoral Immune Responses
Antibody Responses to T-Independent Antigens & Regulation of Humoral Immune Responses	Antibodies: Antigen Recognition in the Adaptive Immune System
Properties of Antibodies That Determine Effector Function	Antibodies: Antigen Recognition in the Adaptive Immune System
Neutrilizatoin of Microbes and Microbial Toxins	Antibodies: Antigen Recognition in the Adaptive Immune System
Oponsonization and Phagocytosis & Antibody-Dependent Cellular Cytotoxicity	Antibodies: Antigen Recognition in the Adaptive Immune System
Immunoglobulin E- & Eosinophil/MAST Cell-Mediated Reactions	Antibodies: Antigen Recognition in the Adaptive Immune System
The Complement System: Properties, Functions & Regulation	Antibodies: Antigen Recognition in the Adaptive Immune System

Functions of Antibodies at Special Anatomic Sites: Mucosal & Nenoatal	Antibodies: Antigen Recognition in the Adaptive Immune System
Evasion of Humoral Immunity By Microbes & Pathogens	B Lymphocyte Mediated Immunity Humoral Immune Responses
Introduction to Vaccine & Vaccination	Autoimmunity, Vaccines, Tolerance and Cancer Immunotherapy
Immunological Tolerance: Significance and Mechanisms	Autoimmunity, Vaccines, Tolerance and Cancer Immunotherapy
Central & Peripheral T Lymphocyte Tolerance & Regulation of T Cell Responses By Inhibitory Receptors	Autoimmunity, Vaccines, Tolerance and Cancer Immunotherapy
Immune Suppresion By Regulatory T Cells & Apoptosis of Mature Lymphocytes	Autoimmunity, Vaccines, Tolerance and Cancer Immunotherapy
B Lymphocyte Tolerance	Autoimmunity, Vaccines, Tolerance and Cancer Immunotherapy
Tolerance to Commensal Microbs and Fetal Antigens	Autoimmunity, Vaccines, Tolerance and Cancer Immunotherapy
Autoimmunity: Pathogenesis, Genetic Factors, Role of Infections & Other Factors	Autoimmunity, Vaccines, Tolerance and Cancer Immunotherapy
Immune Responses Against Tumors	Autoimmunity, Vaccines, Tolerance and Cancer Immunotherapy
Introduction to Cancer and Cancer Immunotherapy	Autoimmunity, Vaccines, Tolerance and Cancer Immunotherapy
Immune responses Against Transplants	Autoimmunity, Vaccines, Tolerance and Cancer Immunotherapy
Introduction to Hypersensivity and Types of Hypersentivity Reactions	Hypesensivity: Disorders Caused By Immune Responses
Immediate Hypersensivity & Clinical Syndromes and Therapy	Hypesensivity: Disorders Caused By Immune Responses
Diseases Caused By Antibodies and Antigen-Antibody Complexes	Hypesensivity: Disorders Caused By Immune Responses
Dieases Caused By T Lymphocytes	Hypesensivity: Disorders Caused By Immune Responses
Congenital (Primary) Immunodeficiencies: Defects in Lymphocytes Maturation, Activation & Function and Innate Immunity	Hypesensivity: Disorders Caused By Immune Responses
Acquired (Secondary) Immunodeficiencies: Acquired Immunodeficiency Syndrome, HIV/AIDS, Therpacy & Vaccincation	Hypesensivity: Disorders Caused By Immune Responses
Case 1: Lymphoma	Clinical Cases
Case 2: Heart Transplatation Complicated By Allograft Rejection	Clinical Cases
Case 3: Allergic Astham	Clinical Cases
Case 4: Systemic Lupus Erythematosus	Clinical Cases
Case 5: Human Immunodeficiency Virus Infection: Acquired Immunodeficiency Syndrome	Clinical Cases