

Diabetes Module: Text book Readings

Lecture	Text Book Readings
Class 1 - LeRoith - Overview of Diabetes	
Class 2 - Krulwich- Glucose Meabolism	<p>How Cells Obtain Energy from Food Molecular Biology of the Cell -> Introduction to the Cell -> Cell Chemistry and Biosynthesis</p> <p>Glycolysis and Gluconeogenesis Biochemistry -> Transducing and Storing Energy</p>
Class 3 - Krulwich- Glucose&Fatty Acid Metabolism and OXPHOS	<p>High-Energy Electrons Are Generated via the Citric Acid Cycle Molecular Biology of the Cell -> Internal Organization of the Cell -> Energy Conversion: Mitochondria and Chloroplasts -> The Mitochondrion</p> <p>Oxidative Phosphorylation Biochemistry -> Transducing and Storing Energy</p>
Class 4 - Ma - Insulin Secretion	<p>The constitutive and regulated secretory pathways Molecular Biology of the Cell -> Internal Organization of the Cell -> Intracellular Vesicular Traffic -> Transport from the Trans Golgi Network to the Cell Exterior: Exocytosis</p> <p>Ca²⁺ Functions as a Ubiquitous Intracellular Messenger Molecular Biology of the Cell -> Internal Organization of the Cell -> Cell Communication -> Signaling through G-Protein-Linked Cell-Surface Receptors</p>
Class 5 - Looker - Diabetes Genes	<p>Mutations Reveal the Functions of Genes Molecular Biology of the Cell -> Introduction to the Cell -> Cells and Genomes -> The Diversity of Genomes and the Tree of Life</p> <p>Review of Classical Genetics Molecular Biology of the Cell -> Methods -> Manipulating Proteins, DNA, and RNA -> Studying Gene Expression and Function</p>
Class 6 - LeRoith - RTK Signaling	<p>Activated Receptor Tyrosine Kinases Phosphorylate Themselves Molecular Biology of the Cell -> Internal Organization of the Cell -> Cell Communication -> Signaling through Enzyme-Linked Cell-Surface Receptors</p>
Class 7 - Caplan - ER Stress	<p>The Endoplasmic Reticulum Molecular Biology of the Cell -> Internal Organization of the Cell -> Intracellular Compartments and Protein Sorting</p> <p>Molecular Chaperones Help Guide the Folding of Many Proteins Molecular Biology of the Cell -> Basic Genetic Mechanisms -> How Cells Read the Genome: From DNA to Protein -> From RNA to Protein</p>
Class 8 - Cagan - Drug Discovery	<p>General Principles of Cell Communication Molecular Biology of the Cell -> Internal Organization of the Cell -> Cell Communication</p>
Class 9 - Buettner - Organ Crosstalk	<p>Gene Targeting Makes It Possible to Produce Transgenic Mice That Are Missing Specific Genes Molecular Biology of the Cell -> Methods -> Manipulating Proteins, DNA, and RNA -> Studying Gene Expression and Function</p>
Class 10 - LeRoith - Drug Strategies	