Additional Internet Resources

Information on all Nobel prize winners and their work is at the official website.

CHAPTER 1: CELLS AND TISSUES

iBioSeminars are a set of university-style lectures on many aspects of biology, created by the American Society for Cell Biology, the Howard Hughes Medical Institute, and the University of California at San Francisco. Particularly relevant to this chapter are

- Introduction to Electron Microscopy
- Fluorescence Microscopy
- Introduction to Stem Cells
- Intracellular Fluorescent Imaging

CHAPTER 3: MEMBRANES AND ORGANELLES

The animation "The Inner Life of the Cell" is a wonderful introduction to cell biology. Using the example of the recruitment of a white blood cell to the site of inflammation, it gives an excellent idea of how a cell is organized and operates. It is particularly good as an illustration of:

- The lipid bilayer and the structure of the plasma membrane
- The cytoskeleton and motor proteins
- Protein synthesis and trafficking

CHAPTER 5: DNA AS A DATA STORAGE MEDIUM

iBioSeminars are a set of university-style lectures on many aspects of biology, created by the American Society for Cell Biology, the Howard Hughes Medical Institute, and the University of California at San Francisco. Particularly relevant to this chapter is Mechanisms of DNA Repair by Recombination.

CHAPTER 7: RECOMBINANT DNA AND GENETIC ENGINEERING

iBioSeminars are a set of university-style lectures on many aspects of biology, created by the American Society for Cell Biology, the Howard Hughes Medical Institute, and the University of California at San Francisco. Particularly relevant to this chapter is “The discovery of reverse transcriptase”.

CHAPTER 8: MANUFACTURING PROTEIN

The animation "The Inner Life of the Cell" is a wonderful introduction to cell biology. Using the example of the recruitment of a white blood cell to the site of inflammation, it gives an excellent idea of how a cell is organized and operates. It is particularly good as an illustration of:

The lipid bilayer and the structure of the plasma membrane
The cytoskeleton and motor proteins
Protein synthesis and trafficking

CHAPTER 10: INTRACELLULAR PROTEIN TRAFFICKING

iBioSeminars are a set of university-style lectures on many aspects of biology, created by the American Society for Cell Biology, the Howard Hughes Medical Institute, and the University of California at San Francisco. Particularly relevant to this chapter is Studying Protein Secretion in Yeast.

CHAPTER 17: MECHANICAL MOLECULES

iBioSeminars are a set of university-style lectures on many aspects of biology, created by the American Society for Cell Biology, the Howard Hughes Medical Institute, and the University of California at San Francisco. Particularly relevant to this chapter are

Cell Motility

Introduction to Motor Proteins

Focal Adhesions

The animation "The Inner Life of the Cell" is a wonderful introduction to cell biology. Using the example of the recruitment of a white blood cell to the site of inflammation, it gives an excellent idea of how a cell is organized and operates. It is particularly good as an illustration of:

The lipid bilayer and the structure of the plasma membrane

The cytoskeleton and motor proteins

Protein synthesis and trafficking

CHAPTER 18: CELL CYCLE AND THE CONTROL OF CELL NUMBER

iBioSeminars are a set of university-style lectures on many aspects of biology, created by the American Society for Cell Biology, the Howard Hughes Medical Institute, and the University of California at San Francisco. Particularly relevant to this chapter are

Controlling the Cell Cycle

Regulation of Cell Size

Introduction to Apoptosis

Introduction to Stem Cells

“How does cancer develop?”

“Cancer starts with gene mutation”

CHAPTER 19: THE CELL BIOLOGY OF THE IMMUNE SYSTEM

iBioSeminars are a set of university-style lectures on many aspects of biology, created by the American Society for Cell Biology, the Howard Hughes Medical Institute, and the University of California at San Francisco. Particularly relevant to this chapter is Cellular Basis of the Immune Response.

CHAPTER 20: CASE STUDY: CYSTIC FIBROSIS

Web sites giving information about cystic fibrosis include:

The US National Heart, Lung and Blood Institute

The UK National Health Service

The Cystic Fibrosis Trust