Lecture 12 Learning Objectives

Understand/know/focus on/note

- what a vesicle is and how it has multiple purposes
- the mechanisms and purposes of
  - endocytosis
  - exocytosis
  - phagocytosis
  - pinocytosis
  - receptor-mediated endocytosis
- examples of how these processes occur in human cells

Lecture 13 Learning Objectives

- Define the term metabolism and describe its main two pathways
- Describe the structure of ATP and explain how it is used to carry and provide energy to the cell
- List the two main ways of ATP production in the body
- List the three main pathways of cellular respiration and know the site of each process
- List the electron acceptor and non-electron acceptor coenzymes and show their related vitamins
- Describe BRIEFLY the process of glycolysis
  - its main purpose
  - ATP accounting
  - its resulting products
- List the three possible fates of pyruvate after it is produced from glycolysis

Learning objectives from Lecture 13 taken from previous course and changed to fix typos

The "electron acceptors" that are the cofactors or coenzymes that were discussed in lecture are NAD+, FAD, FMN, cytochromes and coenzyme Q. Coenzyme A and thiamine pyrophosphate (TPP) do not have redox (electron accepting) roles in these biochemical reactions. This is