**CHEM523 Homework 6**

**Please answer the following questions from Chapter 11 of your textbook:**

Problems 6, 7, 10, 16, 22, 25, 27, 38A, 38C, 38D, 38E (in other words, question 38, but not parts B and F)

**And the following questions concerning material from Chapter 12:**

12-1) Draw a phophatidylcholine glycerophospholipid with a palmitic acid chain and a stearic

acid chain.

12-2) Why are archea lipids ether linked?

12-3) Go back to chapter 2 and look up the helical pitch of an alpha helix and the number of

residues per turn. Given that a lipid bilayer has a thickness of 30 angstroms, how many

amino acids must be in a transmembrane alpha helix? Show your work or you get no

credit.

12-4) What amino acids are usually found at the edges of transmembrane alpha helices and

why?

12-5) What is the fluid mosaic model and how do cells overcome it?

12-6) Name 2 ways that cells can alter their membrane fluidity.