

Take-Home Exam of Biol-750

- This is a take-home exam and the due date of exam is **5:00 pm on May 4, 2012**. Note that your score will be reduced if you will not be able to make the dead line time.
- Your answers must be typed. Your answer to each question must be fit in **one page**, but attached figures and/or tables are not included in this limitation.
- Write your name and name of your assigned membrane protein on your answer sheet.
- You have to submit [your answers](#) and [your PowerPoint presentation file](#) electronically to: xraymain@ku.edu.
- Answer of each student is expected to be **unique from the others**. Also your answers should be unique from those of past students. Note that I have kept all answers from the past students.
- To answer the following questions, you must read your assigned papers very carefully and examine the structure on computer using a graphics software.

Question-1 (60 points):

A protein structure contains many pieces of important information, so that authors cannot describe all pieces of information in their papers. Discover one important information from your assigned membrane protein structure that is not described in the assigned and follow-up papers, and describe your finding and reason why your finding is important. Your answer should be:

I found _____ in the structure of X that described in my assigned paper x.

My finding is important because _____.

Question-2 (40 points):

On the basis of your assigned membrane protein structure, many scientists have designed many new experiments. Design new pieces of experiment to test your finding described in question-1 and expected results. Your answer should be:

I will carry out the following pieces of experiment _____ to test my finding described in question-1.

I will expect to obtain the following results: _____.