

Exam II A

Advanced Biochemistry

Write a 2,500 - 3,000 word paper that presents a disputed or unresolved research topic on your selected protein in the biochemistry field. The paper must include a brief introduction to the research topic and experimental evidence for at least two distinct points of view or possible outcomes. Then state your hypothesis, explain its rationale, and propose a biochemistry experiment that you are going to use to solve the dispute/puzzle. Application of biochemical techniques you have learned from this class is strongly encouraged. **Before Nov 29**, you will hand in a **statement of the problem** you will study (~50 words) along with references for two papers presenting the two different views you will consider. These should be from the **primary literature** (not review paper) in peer-reviewed, high impact journals (see the list of recommended journals). None of these papers should be more than four years old. Your choice of protein should be unfamiliar to you at this time, and approved by Dr. Wang. If your choice of protein has been selected by your peers before your submission, you need to choose another protein. The earlier you submit, the higher chance you get your first choice of protein. The final paper will have many more references (>10) and is due on **December 16 before noon**. This paper should present substantial information from at least 6 recent biochemical research papers and several comprehensive review papers from leading refereed journals (see the list of recommended journals) published in the past four years (2018-2022). Proper referencing is essential. Late submission is not accepted. The paper will be graded on scientific content and writing style. Plagiarism will be prosecuted; guilty students will get a zero on the assignment (making a B- nearly impossible). **The score of this written assignment is weighted as 30% of your final grade (10 bonus points if you choose this task).**

Recommended Journals:

Cell, Cell Reports, Molecular Cell, Cell Chemical Biology, Cell Rep, eLife, Nature, Nature Structure Molecular Biology, Nature Chemical Biology, Nature Communications, Nature Cell Biology, Nature Medicine, Nature Reviews, Scientific Reports, Science, PNAS, ACS Chemical Biology, JACS, N Engl J Med, Journal of Biol Chem, Biochemistry, EMBO J, Angew Chem Int Ed Engl, Curr Opin Chem Biol, Structure, ChemBioChem;