

Graduate Program in Cellular & Molecular Biosciences

University of California, Irvine

Format for rotation proposals

Face Page:

Title of the project:

Student's name:

Rotation Supervisor & Faculty Advisor names and signatures of approval:

This proposal was written by the student, has a distinct and reachable goal, and represents a reasonable amount of work for one rotation project earning ____ units of academic credit. Then student will learn new techniques and approaches consistent with the goals of the rotation program.

Rotation Supervisor's Name _____ Signed _____
Date _____

Faculty Advisor's Name _____ Signed _____
Date _____

Quarter and Year:

Background – Two paragraphs

Briefly, describe the background to the proposed research. In this section focus on presenting the scientific findings that have led to the status of the field and the development of the hypothesis of your rotation project. In two paragraphs, the literature cannot be reviewed comprehensively, so select the facts that are most relevant to the development of your hypothesis.

Rationale and Hypothesis – One short paragraph

Provide a statement of rationale for the rotation research. That is, state why the project is important.

State clearly the explicit hypothesis that your rotation project is designed to test. A hypothesis is a scientific question that can be tested by an experimental approach. If your rotation project

involves the preparation of a reagent that is required for future studies, describe how preparation of that reagent will enable the testing of a hypothesis in the sponsor's lab.

Specific Aim(s) – One short paragraph

State the experimental objectives of the rotation research and how they relate to the stated hypothesis.

Example: To test the hypothesis that Trp266 in enzyme Q plays a central role in catalysis, I will generate a W266A variant of enzyme Q and determine whether mutagenesis induces loss-of-function.

Experimental Approach – Two paragraphs

Describe the experimental plan specifically for the 10 weeks of proposed rotation research. Be realistic and propose a tractable project.

The experimental plan does not need to be extensively detailed, but it should be a coherent narrative of which experiments are planned. Also, this section should comment in one or two sentences on anticipated outcomes, if possible, and how the anticipated results will provide a test of your hypothesis.

References

Incorporate up to 15 references using bibliographic software.

Experimental Protocols

The purpose of this section is to consider whether the techniques required to perform the 10 week project are in-hand.

If protocol development is a component of the rotation proposal, make that a clear component of the Experimental Approach section.

Attach specific protocols from the sponsor's lab that apply directly to your specific aim.

General lab protocols, e.g., for culturing cells, making media, casting gels, etc., need not be appended. If commercial products, e.g., for quantitative RT-PCR, cloning, affinity chromatography, will be used, attach only the face sheet from the kit or product literature but do not include the entire manual.