Introduction

Peer reviews are designed to provide two benefits: first, thoughtful feedback from others can improve and enhance your project experience when it is received at an early stage. Second, reading and thinking critically about other proposals exposes you to new areas of computational biology and enhances your research and project-planning ability.

We will distribute written proposals to a group of reviewers and have a panel discussion covering each proposal. Afterwards, the reviewers will produce written reviews that will be provided to each project team. Both the discussion and written reviews should provide insights and suggestions that could improve your project.

Each student will register as a proposal reviewer, scoring each area on a scientific expertise survey between 1 and 5. Such areas include both computational and biological topics. Proposals are then assigned to primary and secondary reviewers based on these topics. Each student will be a primary reviewer at most once and a secondary reviewer once or twice (this will depend on the overall number of projects).

Proposals will be distributed anonymously, but (as in the real world) reviewers may be able to identify you by your topic area and focus. Reviewers should strive to evaluate the proposals fairly and constructively.

Panel review discussion

We will have a panel discussion session where all proposals are discussed, in the order of their ranking, and then scored by all participants. The assigned primary reviewer acts as the discussion leader, with helpful comments provided from the secondary reviewers. The primary reviewer summarizes the proposal, its strengths and weaknesses, and justifies his/her score. All three reviewers then share their comments and scores publicly, and explain the rationale for assigning these scores. The top and bottom score then determines the range of the proposal, and all other students/reviewers assign a score based on their own evaluation of the proposal and the discussion. They are allowed to score out of range, but they have to explicitly state that they are doing so, and justify briefly, sometimes simply referring to the discussion.

Written reviews

Informed by the comments and discussion arising in the panel discussion, the primary and secondary reviewers for each proposal will produce written reviews for their proposals. These reviews should summarize the proposed work, its strengths and weaknesses, the appropriateness of the investigators background in achieving it, and propose specific suggestions and changes. Each reviewer should give both a score, and a confidence on their score.

Follow NIH enhanced review criteria here:
Note

You should continue working towards your project throughout all stages of the review process: extending your ideas and gathering data, background information, algorithmic techniques, tools, and additional biological background.

Nevertheless, students should incorporate helpful and useful aspects of the reviewers’ comments into their planning and work. This can take place in several ways, depending on the nature and magnitude (or accuracy!) of the reviewers’ concerns. Therefore, in some cases students should re-shape their projects or even re-form teams around higher-scoring projects,