BIOL0600 Proposal Worksheet (based on NSF GRFP)

Use this worksheet to help organize your group’s proposal. The highlighted sections should be completed before the group meeting with the professors to aid in the discussion. For your first draft of your Specific Aims that you will submit for peer review for Week 3’s discussion, you only need to include the material from the highlighted sections.

Title: Provide a short draft title

General Background about the biological question (three or four bullet points): What is the bare minimum someone needs to know in order to understand the experiments you will propose? Use the funnel structure so that the three bullet points get more detailed
  First sentence/bullet should convey the larger field of the research in an interest-grabbing manner
  Middle sentences/bullet should introduce the sub-area of the field that will be your research focus
  Final sentence(s) should set up an interesting question in the sub-area that your research will address

Significance of your work to the field (two bullet points): What is the BIG picture of why the research is important? What don’t we know and why is it important that we figure it out?

Overall Hypothesis for proposal:

Payoff of your work: Sentence/bullet that introduces your experimental system/approaches indicating unique advantages

Overall Goal for the entire proposal:

Aim 1: Include 1st specific aim statement here:

Rationale:

Hypothesis:

Experiment 1: What will be the samples? Controls?

Physical Basis of Readout: What techniques will you use to analyze the samples? What will the data look like (e.g. for a heat stress assay, images of C. elegans can be obtained and analyzed, and/or a survival curve over a certain time period can be plotted)

<table>
<thead>
<tr>
<th>Potential Observations:</th>
<th>Interpretations:</th>
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<tbody>
<tr>
<td>A What are the possible observations? Not just the ones you expect, but what else could happen??</td>
<td>• If you observe this result, what does it mean?</td>
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Pitfalls and how to get around them:
- All experiments have some potential pitfalls. Think of one or two and describe how you will address the pitfall. The pitfall has to be something you can deal with. If the entire experiment will fall apart, that is not a good pitfall to mention! Think of it like this: you need to get to work in the morning and usually drive your car. If your car won’t start one morning you can take the bus or get a taxi. The pitfall is that your car might not start but you still have a way to get to work (meaning you can still do the experiment but maybe just not as planned).

Complementary approach: Is there a complementary experiment that you can perform?

Future directions: Where do you go next? You can’t propose all the possible experiments in the 2 pages. This space is an opportunity to mention other things that are interesting to think about.

Aim 2:

Rationale:

Hypothesis:

Experiment 1:

Physical Basis of Readout:

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Pitfalls and how to get around them:

Complementary approach:

Future directions:

Summary: Tie the proposal together. What will you learn? Broader impacts?
**Preliminary Results:**
Here you will include a table of the most relevant results from your screen. This should include only the results for your strain with denoted general and targeted screen results (if applicable). Include ALL targeted screen results, but for the general screen, only include the genes whose RNAi had an effect on your strain. This does not count towards the final page limit.

**References:**
Please use the numeric or APA style for in-text citations. Citations should be included within the text of your proposal either as: a number in parenthesis or as a superscript with the complete reference listed in number order at the end of your proposal (numeric style), OR as the first author, year in parenthesis with the complete reference listed in alphabetical order at the end of your proposal (APA.)