Grant Proposal Guidelines

Criteria	Value	Specific Objectives
Title of Proposal	6	(a) is specific, formatted as a complete sentence. (b) clearly conveys specific research idea you want funding for
Executive Summary (hint: write this section last)	10	(a) Links purpose or motivation for experiment to concepts and "big picture" (why this research matters) (b) States particular question/objective and hypothesis addressed in experiment (c) Summarizes experimental approach to address the question. (d) Highlights expected findings (e) Describes why this research matters & significant implications of the outcome of experiment.
Background	15	(a) Provides background specific to your question. (b) Links purpose or motivation for experiment to concepts and "big picture" (why this research matters) (c) Ends with a statement of hypothesis or goals.
Methodology	15	(a) Begins with 1-2 sentences describing the overall experimental design, including the purpose of the experiment. (b) Includes positive and negative controls as well as treatment conditions. (c) Describes specific data collection plan with enough detail that reader is convinced you are able to do this work (d) Describes appropriate planned analysis and interpretation procedures, e.g., statistical test, for data and question. (e) Describes evidence needed to support/reject hypothesis
Significant Impact	15	(a) Begins with a statement relating the anticipated results to the hypothesis. (b) Uses scientific concepts accurately and convincingly to relate experimental design to hypothesis. (c) Connects back to idea set up in the background section. (d) Expands on background ideas to indicate additional experiments or research directions that this research could reveal. (e) Describes why this research matters & significant implications of the outcome of experiment.
Figure	10	(a) Includes a mock-up schematic of a result that would support the hypothesis. (See next page for an example) (b) Uses standard figure format (see lab report guidelines). (c) Includes a figure caption that explains in words the biological meaning of the graphic. (d) Embeds visuals in text as they are reference and discussed, NOT pushed to end of the report. (Different from a lab report)
Literature Cited	10	(a) Cites at least THREE appropriate peer-reviewed scientific papers in addition to all other resources necessary to the writing. (b) Avoids citing websites unless clearly justified. (c) Formats in-text and literature cited (at end) in the style of the journal Genetics. (d) Places in-text citations with the concept they reference, not shuffled to the end of a paragraph.
Writing	15	(a) Contains no grammatical or spelling errors. (b) Sentences are clear and to the point, written largely in active voice. (c) Flow of ideas is cohesive and logical. (d) Use of technical terminology is appropriate (e) Words are abbreviated or italicized consistently and as appropriate (e.g. species names, gene and allele names)
Format	4	(a) Two pages of text and figures, max. Lit cited may be on a 3rd page. (b) Report is written entirely in sentences organized as paragraphs (not bulleted lists). (c) Report is organized into sections (i.e., executive summary, background, methodology, significant impact, etc.) with headings that are bold. (d) Page format: Times New Roman 12 pt font (even for headings); 1 inch margins; single-spaced.
Possible points	100	

Literature Cited format examples (excerpted from Wright 2016)

Agrawal A. F., Hartfield M., 2016 Coalescence with background and balancing selection in systems with bi- and uniparental reproduction: contrasting partial asexuality and selfing. Genetics 202: 313–326.

Aguade M., Miyashita N., Langley C. H., 1989 Reduced variation in the yellow-achaete-scute region in natural populations of Drosophila melanogaster. Genetics 122: 607–615.

Begun D. J., Aquadro C. F., 1992 Levels of naturally occurring DNA polymorphism correlate with recombination rates in D. melanogaster. Nature 356: 519–520.

Cai J. J., Macpherson J. M., Sella G., Petrov D. A., 2009 Pervasive hitchhiking at coding and regulatory sites in humans. PLoS Genet. 5: e1000336.

Charlesworth B., Morgan M. T., Charlesworth D., 1993 The effect of deleterious mutations on neutral molecular variation. Genetics 134: 1289–1303.

Sample cartoon schematic of an experimental design:

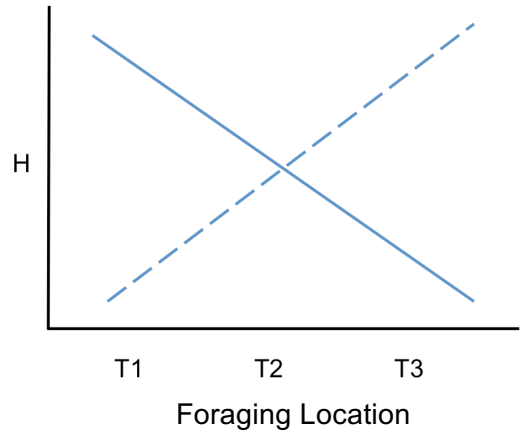

Figure 1. Predicted response variable (H) results for foraging locations of increasing treatment condition (T), hypothesizing an increasing trend in X (dashed line) and a decline in Y (solid line).

Note *that in your proposal, the terms "response variable", "treatment condition", X, and Y should be replaced with terms specific to your study.*