**Bacterial Project and Reference**

**Summer 2022**

**Due May 26th, 20 pts.**

**Due as a final Google doc shared with your TA by the start of your lab May 23. All students in the group should contribute to and edit this document from their own email access.**

**Start setting up your Google doc as soon as you start discussing your project. Your protocol and needed materials may change as you actually set up your project. This is fine. Be sure to continue to update all the documents/work in your group Google folder.**

**Your protocol should include the following:**

* Write a paragraph or 2 about the ideas behind your project. (2 pts)
* Hypothesis (2 pts)
* Describe the experiment in detail
* Provide a clear list of the materials needed - #s of dishes, treatments, if applying solutions or dry materials, be sure to state what concentration/amount will you make and/or apply. Are treatments applied once or more than once (how often)? (5 pts)
* How will you apply treatments and set up the dishes. (2 pts)
* Indicate - Independent and Dependent Variables, Controls (3 pts)
* What concerns/problems you might encounters, and what to do about that? (2 pts)
* Include the full reference found by each person in your group (4 total papers in a group of 4 people). Guideline for proper CSE/CBE references formatting can be found in the linked helpful resources at the Bottom Unit 1 on the lab website. (2\* pts)
* ALSO include a short explanation on how each reference relates to your study. (2\* pts)

\* Each STUDENT is graded out of 2 pts for adding their own properly formatted reference and 2 pts towards a good explanation – this way a whole group is not penalized for someone not providing a reference.

*When you set up your experiment, you may decide to make some changes to this protocol. That is fine as long as you make note of these changes in your lab manual notes. You will need a clear and accurate record of everything you do when you present your project and write your Lab Report at the end of the semester.*