

Biology 3210 – Lab Report

Due: November 9, 2018 (12:01pm)

Value: 10%

This assignment is to be an **individual effort**.

Summary: For this assignment you will prepare a formal lab report demonstrating that you have successfully (or not) over-expressed and purified the RNase II from *E. coli*.

Format: This assignment will be typed, double-spaced using a 12 point font with 1" margins and will not exceed twelve (12) pages in length (excluding the title page, figures, & references). Poor grammar, spelling, or failure to follow the required format will result in a loss of marks.

Guidelines: The following is a list of general concepts to address, *at minimum*. Review Appendix B in the lab manual and the Science Toolkit prior to starting this lab report (No really, go review these sources!).

Introduction:

- put the experiment in context
- provide sufficient background information for the reader to understand the experiment(s)
- cite other primary literature to support your statements
- clearly state any experimental hypothesis and/or objective

Materials and Methods:

- provide the protocol in sufficient detail to be replicated by an individual with lab experience
- consider using subheadings to organize and make this section easier to read

Results:

- present the results obtained from the experiment(s)
 - be sure to highlight any results that will be focused on in the Discussion
- if appropriate, properly formatted figures and/or tables may be useful (must be referred to in the text)
- do NOT attempt to explain any results or draw any conclusions
- do NOT present the same data twice

Discussion:

- Did the experiment work? Explain the results obtained (i.e., make conclusions)
 - explain, in detail, how you concluded that the experiment worked (or didn't)
 - provide explanations for any unexpected results (and any impact they may have)
 - back up all conclusions and explanations with references
- Did you meet the objective stated in your introduction? Provide & explain your evidence.
- Could the experiment be improved? Future directions?

Failure to discuss the controls will result in a heavy loss of marks!

References:

- only references cited (properly by author, year) should be listed
- at least six (6) of your references *must be peer-reviewed*
- website references are NOT acceptable (no exceptions!)
- see Appendix B for formatting requirements of the reference section (seriously, review this!)

Late assignments will be penalized as outlined within the lab manual.