

Regulated Research Institutional/Industrial Setting Form (1C)

This form must be completed AFTER experimentation by the adult supervising the student research conducted in a regulated research institution, industrial setting or any work site other than home, school or field.

Student's Name(s) Rebecca Zhang

Title of Project Genetic Variation for Sexual Dimorphism in Drosophila melanogaster

To be completed by the Supervising Adult in the Setting (NOT the Student(s)) after experimentation:

(Responses must be on the form as it is required to be displayed at student's project booth; please do not print double-sided.)

The student(s) conducted research at my work site:

1. Did you or your proxy (e.g. graduate student, postdoc, employee) mentor or provide substantial guidance to the student researcher? ☒ Yes ☐ No
 - a. If no, describe your and/or your institution's role with the student researcher and his/her project (e.g. supervised use of equipment on site without ongoing mentorship and sign below.

 - b. If yes, complete questions 2 – 5.

2. Is the student's research project a subset of your ongoing research or work? ☒ Yes ☐ No

Use questions 3, 4 and 5 to detail how the student's project was similar and/or different from ongoing research or work at your site.

3. Describe the independence and creativity with which the student:
 - a. developed the hypotheses or engineering goals for the research project
I explained overall purpose of the research, and Rebecca suggested a research project as a subset of the overall work. She determined the hypothesis and engineering goal, and I confirmed them. She also recognized applications towards humans with her background in biology and reading related research papers.

 - b. designed the methodology for his/her research project
Rebecca investigated procedures used in her project from other research papers, adapting them for her project, and I explained how to conduct some of the procedures, such as demonstrating a dissection. I advised her on which procedures were better suited for her project.

 - c. analyzed and interpreted data
I suggested coding in R for Anova. Rebecca learned R, wrote some code for ANOVA, and I looked over her code. Rebecca analyzed the ANOVA results and determined some conclusions on her own. We discussed the big picture conclusions together.

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Student's Name(s) Rebecca Zhang

4. Detail the student's role in conducting the research (e.g. data collection, specific procedures performed). Differentiate what the student observed and what the student actually did.

Rebecca worked independently and led her own research project, with minimal guidance. She collected and recorded her own data. She implemented the procedures herself. For her dissection procedure, she carefully used a tweezer to transfer fruit fly bodies from the microtubes to the microscope slides. She used tweezers to remove the wings and abdomens without damaging them. She discarded the remaining parts in a jar of 95% ethanol. She measured the wing length as a body size proxy using the program AxioVision Rel. 4.8 with the scaling set calibrated with a 0.01 mm ruler under 5.0 magnification. She counted the abdominal bristles directly under the microscope. She coded in R for an ANOVA test, considering the factors of line and sex as fixed, and vial as random. From her analysis, she considered the significance of the wing lengths, abdominal bristle counts, and abdominal bristle counts divided by wing lengths to factor out size dimorphism.

5. Did the student(s) work on the project as part of a group?

☐ Yes

☒ No

If yes, how many individuals were in the group and who were they (e.g. high school students, graduate students, faculty, professional researchers)?

I attest that the student has conducted the work as indicated above and that any required review and approval by institutional regulatory board (IRB/IACUC/IBC) has been obtained. Copies are attached if applicable. I further acknowledge that the student will be presenting this work publicly in competition and I have communicated with the student research regarding any requirements for my review and/or restrictions of what is publicized.

John True

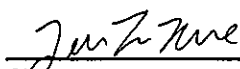
Supervising Adult's Printed Name

Stony Brook University

Institution

Dept. of Ecology & Evolution 650 Life Sciences Stony Brook NY 11794-5245

Address


Signature

Associate Professor

Title

11/02/19

Date Signed (must be after experimentation) (mm/dd/yy)

john.true@stonybrook.edu

Email/Phone