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) Elizabeth Chun

Title of Project Assessing the Effect of Resveratrol on Presenilin 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

      Elizabeth took it upon herself to read relevant journal articles and develop her research proposal on her own. Having thoroughly educated herself on her topic, Elizabeth developed her hypotheses and engineering goals based on past research and precedents.

   b. designed the methodology for his/her research project

      After reaching out to me to ask about available resources and technology in my lab, Elizabeth designed her methodology on her own. She creatively decided to both perform a behavioral test on the flies -- the climbing assay -- and dissect fly brains. To this end, she persevered while learning how to master advanced fly brain dissections and was successful after looking up tutorial videos online and diligently practicing every day.

   c. analyzed and interpreted data

      As with the other parts of her experiment, Elizabeth was as independent as she could be but was unafraid to come to me for help when it would make her experiment stronger. Elizabeth collected, analyzed and interpreted her data on her own but continued to communicate her progress to me and ask questions along the way. Regarding her brain dissections, Elizabeth first looked at her images on her own and came up with possible reasonings for what she saw, but then came to me with the pictures as well -- at this point we were able to engage in a discussion about the results together.

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Student's Name(s) Elizabeth Chun

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.

Elizabeth conducted the entirety of her experiment as well as observed her own results; she took this study into her own hands and her engagement with her work was always apparent. After designing her experiment and taking a few days to get comfortable with working with flies (ex. transferring them between vials), Elizabeth researched climbing assays and performed the procedure on her flies (and collected data) on her own. I then helped Elizabeth learn to perform fly brain dissections -- after mastering the delicate procedure, Elizabeth was fully independent with her dissections. Each of the dissections that she performed for her study were done on her own. Elizabeth also learned from me how to stain the brains with primary and secondary antibody solutions and mount them onto slides. Elizabeth quickly caught on and at that point performed the process on her own. Finally, I assisted Elizabeth in using the Keyence Fluorescence Microscope to observe her brains, and after one session together, Elizabeth took it upon herself to use the microscope on her own. The images in her results are pictures of the brains that she took on her own.

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.

Dr. Frances Hannan		Assistant Professor
Supervising Adult's Printed Name	Signature	Title
New York Medical College		8/30/19
Institution		Date Signed (must be after experimentation) (mm/dd/yy)
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