

## 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) Sarah Moran

Title of Project Antiviral Capabilities of DABCO-hydrocarbon Molecules

### 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  
Originally, the student worked on the project based on a previous hypothesis from the lab. However, when the desired results were not obtained, she took it upon herself to design a new hypothesis based on previous data and new samples provided to her.
  - b. designed the methodology for his/her research project  
After training the student in the ways of the laboratory, the student tweaked the experiments and designed new methods to test her hypothesis. As I was not at the lab much, she took it upon herself to redesign the experiments.
  - c. analyzed and interpreted data  
Sarah analyzed much of the data on her own. She wrote up a analysis and sent it to me with her data. I was impressed by her analysis and her insightfulness. Her ability to identify interesting coorelations in the data and put it into the context of the project was excellent.

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### Continued

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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.

Sarah performed all the work she presented in her paper. She tested previous hypotheses, created new ones and tested them using techniques taught to her in the laboratory. Her work involved testing the antiviral activity of novel antimicrobial cloths against bacteriophage T4. Unfortunately, cloths that had previously showed antiviral activity, did not work as they were over 5 years old. So her experiments did not come out as expected. Therefore, she decided to look at the antiviral properties, not using treated cloths but using the starting materials (the materials that coat the cloth rendering it antimicrobial). Because we had never done this in the laboratory before, Sarah had to design a new method to test the antimicrobial activity of these powders (starting materials). These experiments were carried out using proper negative and positive controls. All data was collected and analyzed by Sarah herself.

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

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

☐ Yes

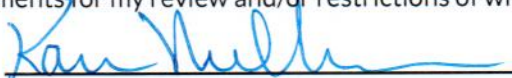
☒ No

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.

Karin Melkonian

Supervising Adult's Printed Name  
LIU Post

  
Signature

Professor of Biology

Title  
12/15/19

Institution  
720 Northern Blvd, Greenvale, NY 15548

Address

Date Signed (must be after experimentation) (mm/dd/yy)  
kmelkoni@liu.edu/516299307

Email/Phone