Risk Assessment Form (3)

Must be completed before experimentation.

Student's Name(s) Justin Lu and Noelle Chung

Title of Project Ecotoxicity of Bisphenol S Through Proteomic and Genomic Changes in C. elegans: Preliminary Findings

To be completed by the Student Researcher(s) in collaboration with Designated Supervisor/Qualified Scientist:
(All questions must be answered; additional page(s) may be attached.)

1. List all hazardous chemicals, activities, or devices that will be used; identify microorganisms exempt from pre-approval (see Potentially Hazardous Biological Agent rules).

2. Identify and assess the risks involved in this project.

3. Describe the safety precautions and procedures that will be used to reduce the risks.

4. Describe the disposal procedures that will be used (when applicable).

5. List the source(s) of safety information.

To be completed and signed by the Designated Supervisor (or Qualified Scientist, when applicable):
I agree with the risk assessment and safety precautions and procedures described above. I certify that I have reviewed the Research Plan/Project Summary and will provide direct supervision.

Ileana Rios | Signature | 01/17/20

Designated Supervisor's Printed Name | Signature | Date of Review (mm/dd/yy)

Science Teacher at Trinity School | 646-827-6691

Position & Institution | Phone or email contact information

PHD research in cellular and molecular biology

Experience/Training as relates to the student's area of research

Risk Assessment Form (3)

Noelle Chung and Justin Lu

1. **List all hazardous chemicals, activities, or devices that will be used; identify microorganisms exempt from pre-approval:**
   This team will utilize Bisphenol S at a concentration of 10mM. <u>All stock and working dilutions</u> will be prepared for student use by the mentor/teacher (Ileana Rios).

2. **Identify and assess the risks involved in this project:**
   Due to stringent safety protocols, safety training, and direct supervision, the risks to the students are minimal and may involve accidental spills.

3. **Describe the safety precautions and procedures that will be used to reduce the risks.**
   Skin contact and eye exposure are entirely minimal due to personal protective equipment; In addition, there is a shower and eye wash station in the biology lab. First, the BSL-1 prep room which houses the CO_2 incubator, cell media reagents, autoclave, and biohazardous waste is secure with a combination door lock; a few instructors in the science department and maintenance are familiar with the key code; the prep room is always closed and locked unless Dr. Rios is present in the room. Students will wear personal protective equipment consisting of lab coats, nitrile disposable gloves, goggles, and facemasks from VWR. All activities and protocols with BSL-1 entities are carried out in the safety hood in a BSL-1 prep room and under direct supervision by Dr. Rios. <u>All stock and working dilutions</u> of Bisphenol S will be prepared by Dr. Rios for student use.

4. **Describe the disposal procedures that will be used (when applicable)**
   All worm media waste is disinfected with 10% bleach and autoclaved for 20 minutes at 212°F prior to disposable in a red biohazard bag which is picked up for incineration by *Sharps* Compliance, Inc. **<u>All Bisphenol S treated liquid waste is collected in amber chemical waste bottles and collected by PEGEX Hazardous Waste Removal (Account NumberA-96207).</u>**

   List the source(s) of safety information:
   a. Sigma Aldrich Safety Data Sheet
   b. Product Name: Bisphenol S
   c. Product Number: 43034
   d. Brand: Sigma Aldrich
   e. CAS Number: 80-09-1