

Risk Assessment Form (3)

Must be completed before experimentation.

Student's Name(s) Sophia Jang

Title of Project The Effect of Light on the Epitranscriptome of Plants

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).

See attached

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

See attached

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

See attached

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

See attached

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

See attached

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.

Oliver Artz

Designated Supervisor's Printed Name


Signature

7/10/19

Date of Review (mm/dd/yy)

Postdoctoral fellow

Position & Institution

artz@cshl.edu

Phone or email contact information

Ph.D. in molecular plant biology and biochemistry

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

Risk Assessment Form (3) Addendum

Sophia Jang

The Effect of Light on the Epitranscriptome of Plants

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

Triton X-100 for molecular biology (Sigma Aldrich), ethanol (200 proof anhydrous ethyl alcohol USP from Warner-Graham Corporation), acetosyringone (Sigma Aldrich), rifampicin (VWR), gentamicin (VWR), kanamycin (VWR), carbenicillin (VWR), agarose powder (used for agarose gel, from VWR), ethidium bromide (Sigma Aldrich), Proteinase K (Thermo Fisher Scientific), RNase A (Qiagen), Buffer P2 (Qiagen), Buffer P3 (Qiagen), Buffer N3 (Qiagen), Buffer PB (Qiagen), Monarch Plasmid Lysis Buffer (B2; New England BioLabs), Monarch Plasmid Neutralization Buffer (B3; New England BioLabs), Monarch Plasmid Wash Buffer 1 (New England BioLabs), *Agrobacterium tumefaciens* strain GV3101 (VWR), *E. Coli* strain DH5-ALPHA Cell (Thermo Fisher Scientific), Gateway pDONR 221 vector (Thermo Fisher Scientific - Invitrogen), p19 vector (Addgene), Ac6 plasmid and Dn6 plasmid (Addgene), entry clones pDONR221-MTA, pDONR221-FIP37 and pDONR-MTB constructed by Oliver Artz.

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

If there are spills, the chemicals can be easily cleaned and when necessary, CSHL Facilities department will be contacted for further assistance. Risks include possible skin irritation, eye damage/eye irritation, flammability, and respiratory sensitization.

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

To reduce the risks, appropriate personal protective gear such as gloves, a lab coat, and safety goggles will be worn when appropriate. Sophia also participated in an extensive safety training provided by Cold Spring Harbor Laboratory. She will wash hands thoroughly after handling all chemicals, and properly collect all spillage and dispose of contents/container to an approved waste disposal plant, and in a biological hazardous container as appropriate. For ethidium bromide, all work with this chemical will be limited to a taped off area on the workbench specifically designated for equipment that comes in contact with ethidium bromide, and work will only be conducted under the supervision of a lab employee. Only equipment continually used, such as trays for the gels, are placed within this area – other objects are not brought into the vicinity. All work with bacteria will be conducted in a biological safety hood.

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

Gloves will be immediately disposed of in the biological hazardous waste container after usage, as will all PCR tubes used to dispose samples in the gels directly after usage. All chemicals and items used will be disposed as regulated medical waste or down the sink as appropriate.

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

Lab protocols, Cold Spring Harbor Safety Training information, SDS from vendors