

## Lessons Learned: UV Eye Injury

### What Happened?

A graduate student was exposed to UV lightbox when using a UV lamp device to view gels in a teaching lab. The teaching assistant (TA) received an eye injury that led to temporary blindness for a few days.

### What went right?

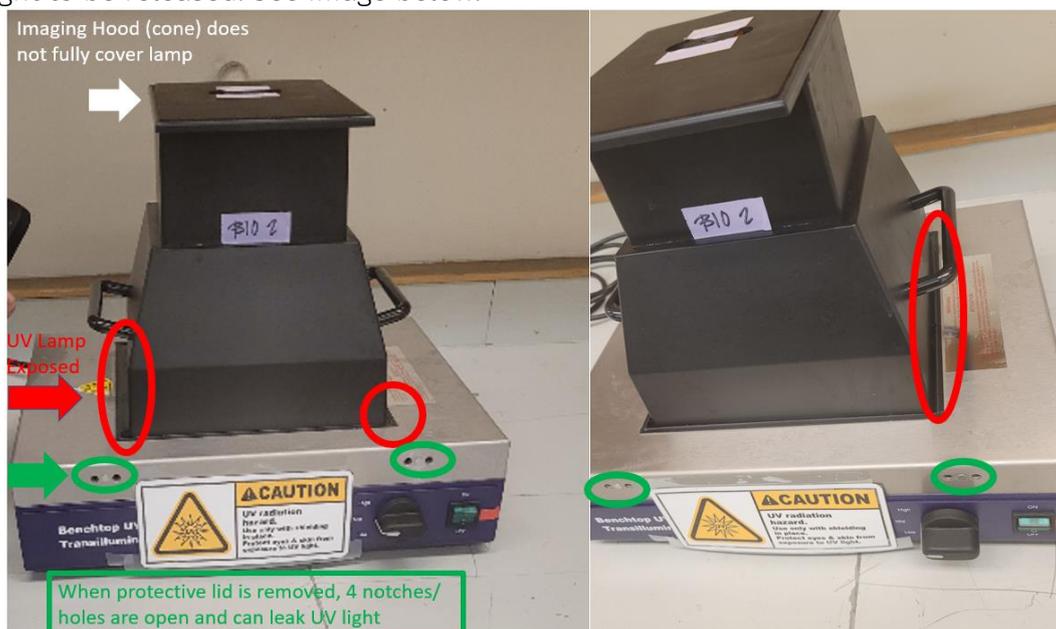
- All TAs were required to attend TA meetings in which safety precautions and experimental details were discussed. The TAs were also required to perform the experiment while supervised by the Lab Coordinator.
- Safety glasses with high-level UV protection were provided to all TAs and students during the first week of class, and were worn by the affected TA.
- Lab manual includes a preface that emphasizes the requirement to wear PPE.
- TA notified Academic Coordinator and EH&S after incident to seek appropriate medicate care.

### What should have been done differently?

- The UV lightbox used should have been completely covered by the imaging filter to prevent exposure.
- Written SOPs, safety information, and other documentation should have been provided to TAs at the time of the TA meeting (verbal communication was not adequate enough). Some TA notes were provided via email or on GoogleDrive. Physical copies should also have been given.
- TAs worked with different equipment setups. The equipment should be the same for all labs or the training should have been thorough in discussing the different setups.

### What was the cause of the injury?

- Lab manuals do not have hazard warnings or reminders to wear UV-safe eyewear.
- TA notes didn't have hazard warnings, step-by-step procedures for handling the lamp, etc.
- UV lamp window was not fully covered by an imaging cone which allows an outlet for light to be released. See image below.



### **What corrective actions will be taken?**

- New safety precaution signage will be placed on doors and next to the UV equipment for the experiment.
- Modification of the lab manual and TA notes to contain information on safety precautions, instructions on how to use the UV lamp, and proper PPE to wear should be done.
- Department purchased a new Gel Imaging System which does not require the use of the imaging cone.
- Document TA attendance to meetings to ensure all TAs receive the proper training.
- Perform a knowledge assessment to assess the TA's knowledge and understanding of the safety requirements.
- Training should be standardized so that all labs are working with the same equipment and experimental setup.