
From: laboratory-safety-request@lists.uchicago.edu on behalf of Office of Research Safety
<researchsafety@uchicago.edu>
Sent: Monday, April 13, 2020 6:52 PM
To: laboratory-safety@lists.uchicago.edu
Subject: [Laboratory-Safety] SAFELab Newsletter



THE UNIVERSITY OF
CHICAGO

Office of Research and
National Laboratories
Office of Research Safety

SAFELab Newsletter

(Safety Advisory Forum for Experimental Laboratories)

Volume 2, Issue 3

April 2020

Upcoming Training

To satisfy social distancing efforts, all training for the following are accessible online either via live Zoom training or a webinar. [Click here to sign up.](#)

- **Radiation Safety**
- **Chemical Hygiene Plan (Lab Safety)**
- **Comprehensive Biosafety**
- **IATA Shipping Dangerous Goods**

Please note, you do not need to have an EHSA account to take training, but when trying to access EHSA without an account, you will be rejected. Please [contact the EHSA manager](#) to request access.

Training Module in EHSA

To access **online** training:
<https://ehsa.uchicago.edu/training>

To register for **live** training:

A message from Joe Kanabrocki, Associate Vice President for Research Safety:

Dear Laboratory Community,

*In light of the **COVID-19 situation** and the University's directive to ramp down research activities in order to reduce person-to-person contact, the Office of Research Safety will be **temporarily suspending our routine laboratory inspection process**. Therefore, we are cancelling all scheduled inspections and suspending our laboratory inspection program until further notice. We will reach out to you again when the inspection process resumes.*

*At present, building **loading docks remain open** for receipt of materials essential to your research (e.g. compressed gas, liquid nitrogen) and hazardous waste collection continues. For information regarding waste pick up and other services, please visit the Environmental Health and Safety's website here:
<https://safety.uchicago.edu/>*

*ORS has converted all **in-person training** activities to on-line live sessions (via Zoom) at:
<https://ehsa.uchicago.edu/trainingregistration>*

***Office of Research Safety staff** are primarily working from home but remain responsive to your questions and needs; all ORS phones*

<https://ehsa.uchicago.edu/trainingregistration>

Contact the EHSA Administrator for technical assistance.

Events

Sponsored by ABSA International (not affiliated with UChicago):

[Coronavirus and Biosafety in the Laboratory](#)

April 17 @ 12:00 pm - 2:30 pm CDT

General Information

Chemical Hygiene Plan - Annual Refresher Required

This is a reminder that as of January 1, 2020, annual Chemical Hygiene Plan (CHP) training will now be required for all researchers. The new annual CHP- Lab Safety online refresher now includes a quick review of the CHP, incorporates the annual EH&S Fire Safety and Evacuation training, and will focus on recent laboratory incidents and lessons learned from these incidents. This training will be updated annually by ORS based on incidents and lessons learned. Researchers are directed to the new CHP- Lab Safety online refresher when their Fire Safety and Evacuation training has expired.

For a complete description, [click here](#).

Medical Payments for UChicago Student Injuries Occurring in Laboratories at UChicago

What is covered?

Out-of-pocket costs incurred for emergency medical care for accidents or injuries sustained during assigned responsibilities while in laboratories or other research activity, regardless of fault.

have been forwarded to ORS staff mobile phones, or you may email us at researchsafety@uchicago.edu. For the **ORS Response and Decontamination Guidance and other COVID-19 related information from ORS**, visit our website at <https://researchsafety.uchicago.edu/covid-19/>

ORS staff, together with the UChicago [Institutional Biosafety Committee](#), continue to work with **investigators interested in pursuing research in the realm of COVID-19** to ensure the safety of research staff and to help facilitate vital scientific inquiry into COVID-19. To this end, the BSD Dean's Office is establishing a SARS-CoV-2 Core facility at the [Howard T. Ricketts Laboratory \(HTRL\)](#) on the campus of Argonne National Laboratories. This state-of-the-art biocontainment laboratory operates at BSL3/ABSL3 under the Direction of Professor of Microbiology Dominique Missiakas, with the SARS Core directed by Professor of Microbiology Glenn Randall. The HTRL will support research activity involving SARS-CoV-2 infection studies, whether in vivo or in vitro. **Please contact ORS immediately if you plan to pursue a research project involving SARS-CoV-2.**

The response to the COVID-19 outbreak is fluid and subject to change. We will notify you immediately in the event any of the above-mentioned services are changed or temporarily suspended. In the meantime, please visit the University's Research Continuity Planning website for instructions pertaining to the research community's response to COVID-19. This website will be updated often <https://researchcontinuity.uchicago.edu/>.

Please [send us an email](#) if we can assist you or your lab with anything.

The University will continue to provide information and updates, visit <https://coronavirusupdates.uchicago.edu>

Announcements

Hazardous Waste pickup

Please be advised that due to reduced waste volumes, beginning next week hazardous waste pick-ups for **campus** locations will take place on **Wednesday** of each week until laboratories return to full operation. Medical Center location waste pickups will continue to take place on Wednesday of each week.

Who is covered?

UChicago students injured during assigned responsibilities in laboratories or other research activity. Includes enrolled UChicago graduate and undergraduate degree students.

The program is set up for covering emergency care at UCMC and would not apply to non-degree visiting students or injuries that occur in field research. In these instances, students should utilize their health insurance. Additionally, students who are injured abroad can call International SOS for assistance.

If a student receives bills for related treatment, they should contact the Office of Risk Management at risk@uchicago.edu.

Any additional questions or concerns should be directed to the [Office of Risk Management](#).

Which Safety Unit Do I Call?

Have a question or need help but are unsure who to contact? Visit the new "Who Does What?" page on the [Environmental Health and Safety's website](#) where you will find a comprehensive list of activities, definitions and who to contact.

There is a search function that will help make navigation easier. If you have any questions, please contact us at researchsafety@uchicago.edu or call 773-834-2707.

For emergencies, always contact campus police at 123 (campus phone), or 773-702-8181.

UCAIR

The **University of Chicago Accident and Incident Reporting** system ([UCAIR](#)) provides a user-friendly mechanism for reporting work-related accidents and incidents to [EHS](#) and [ORS](#). For more information about UCAIR, visit the [FAQs page](#). We also encourage the reporting

For campus locations, enter waste pick-ups through [EH&S Assistant](#). If you need access to the EH&S Assistant, contact Environmental Health and Safety at safety@uchicago.edu. For laboratories located in the Medical Center, contact the Environmental Health and Safety Medicine Office at 773.795.SAFE or safety.office@uchospitals.edu.

Thank you for your continued cooperation with ensuring safety at the University of Chicago. Please feel free to contact Environmental Health and Safety at safety@uchicago.edu or 773.702.9999 with any questions.

Radiation Safety presents: Laser Faire **(Laser Safety blog)**

What is a laser?

How many of us have looked directly at the sun without sunglasses either intentionally or unintentionally? On occasion, we have all found ourselves getting a direct glance at the sun without sunglasses just hurt and left spots in our vision for a short while. Now let us take a glance at how that compares to a laser.

Laser, is an acronym for Light Amplification by Stimulated Emission of Radiation. Like the sun, lasers emit electromagnetic radiation (EMR). The sun, like a traditional light bulb, emits radiation throughout the EM spectrum. A light bulb in your house emits various wavelengths of light and can illuminate a wide area as the light is highly dispersed.

Lasers, on the other hand, generally emit directional, coherent, and monochromatic radiation. The resulting emission is a highly focused beam of radiation with little divergence. After the distance of 1 kilometer (greater than 0.6 miles), a laser with a divergence of 1 m rad and initial diameter of 1 mm will still only have a diameter of 1 m.

The highly concentrated radiation emitted from a laser is especially hazardous to the eye. The retina is able to focus EMR in the 400 nm to 1400 nm range up to 100,000x, which means that a laser irradiance of 1 mW/cm² entering the eye can be magnified to 100 W/cm² at the retina. **Just a good reminder to wear the proper laser safety eyewear in case of accidental viewing in the lab and to handle laser pointers responsibly!** Different lasers are capable of emitting radiation of different wavelengths including UV, Visible, and IR radiation. The different wavelengths pose different risks to the body including possible photochemical and thermal injuries to different parts of the eye and the skin.

of unsafe conditions observed on campus.

Please remember to first call 123 (on-campus phone) or 773.702.8181 (off-campus phone) for accidents requiring emergency response to ensure the appropriate emergency response personnel are notified.

Involved individuals, supervisors, affected persons, or witnesses can submit reports. Anonymous reporting is available for events that do not require medical treatment.



Click icon to visit the UCAIR website

Joint Research Safety Initiative (JRSI)

The JRSI is a community of students, post-docs and research assistants whose focus is to promote a culture of safety for the Chemistry Department and Institute for Molecular Engineering (IME).

For more information, [visit JRSI's website](#).



It is important to notify UChicago's Laser Safety Officer about your laboratory Class 3B and Class 4 lasers so that we can conduct a hazard evaluation. The Laser Safety Officer will work with your lab to help keep everyone safe and reduce the risk of exposures to dangerous levels of laser radiation.

If you have any questions about laser safety feel free to reach out to us at lasersafety@lists.uchicago.edu

Quick Tips

Quick Tip 1: ABSA International

ABSA International developed an excellent COVID-19 tool kit which contains information and links compiled from the Centers for Disease Control and Prevention and the World Health Organization, journal articles, news updates and access to free webinars. Check it out here: <https://absa.org/covid19toolbox/>

Quick Tip 2: Microtome Injuries

What happened?

On Feb 8, 2018, a laboratory worker was preparing 200µm tissue sections with a cryostat/ cryomicrotome. While attempting to clean the blade using a brush with their right hand, the fourth and fifth digits of their left hand accidentally contacted the blade, cutting the tips of their fingers. The researcher immediately sought help from other lab members and reported to the emergency room while applying pressure to the wounded fingers. After being treated and released from the emergency room, the researcher filed an UCAIR report to document the accident. This incident reflects a pattern of recent microtome injuries in U Chicago laboratories, including cuts from cryostats on 5/06/2019 and 9/11/2019 which were treated with first aid.

What was the cause?

During the cryostat cleaning process, both hands were in relatively close proximity to the blade. While attention was focused on the dominant hand using a brush, the non-dominant hand wandered into the path of the blade. Demonstrating that cryostat accidents such as this can happen to anyone, the person injured is an experienced researcher with prior training and experience on using the cryostat.

What were some of the things done well?

The injury, while significant, will not likely result in long-term effects



Does your department have any information to share in our newsletter? Would you like to see something specific?

[Click here to contact the ORS Administrator](#)



Learn more about the Office of Research Safety or our partners by [visiting our website](#).

Related Links

to the individual. The researcher and the lab members acted quickly and correctly. Such actions taken include:

- Research personnel were trained, knew the hazards, were aware of how to get first aid and knew the location of the emergency room.
- The researcher had gloves on, which likely reduced some damage from the blade.
- The researcher was not working alone and was able to promptly call for help.
- Another lab member accompanied the researcher to the emergency room.
- The accident was reported promptly to the Office of Research Safety (ORS) via UCAIR.
- The laboratory already initiated the development of corrective actions before ORS began to investigate.

What are some lessons learned from the incident?

- Any change in experimental design has the potential to alter the risk level. In this case, the researcher was cutting a thicker tissue section than usual, thus requiring more extensive cleaning. Whenever a researcher changes a procedure, consider how the change alters the associated risks.
- Standard Operating Procedures and training for using microtomes should include guidance on keeping hands clear of the blade and using protective features like the blade guard/hand wheel lock when possible.
- All researchers working with a microtome should be provided with hands-on training from an experienced user before working with the equipment
- Work practices like holding a tool (such as a cleaning brush) or gripping the cryostat should be used to prevent the fingers from accidentally contacting the blade

Quick Tip 3: Sometimes a little modification can have big effects.

ORS and a contractor recently investigated a malfunctioning fume hood. The fume hood had extremely high, turbulent flow in one part of the hood, while the almost no flow in the rest. The problem could not be located. After noticing the unbalanced airflow, the fume hood contractors looked around. In the lab bay right across from the fume hood, the air supply vent was partially covered with plastic wrap (see photo). After removing the plastic wrap, the fume hood functioned properly.

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[Marine Biological Laboratory](#)
[Duke Infectious Disease Response Training](#)
[Joint Research Safety Initiative](#)



Questions?
[Email us!](#)
Call: 773-834-2707

The research staff decided to put up the plastic wrap to keep the air from blowing directly on them, but they never imagined it would affect the fume hood around 3m away. It is important to avoid modifying ventilation and other systems unless you have expert advice from someone who understands the system. Please reach out to your building manager if you have an issue with ventilation or other utilities.



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