From: laboratory-safety-request@lists.uchicago.edu on behalf of Office of Research Safety

<researchsafety@uchicago.edu>

**Sent:** Thursday, April 22, 2021 11:19 AM

To: labsafetycontacts@lists.uchicago.edu; laboratory-safety@lists.uchicago.edu

**Subject:** [Laboratory-Safety] SAFELab Newsletter - Spring Qtr 2021





## **SAFELab Newsletter**

(Safety Advisory Forum for Experimental Laboratories)

Spring Qtr 2021

# \*COVID-19\* Campus Updates



#### **Spring Quarter Attestation is due**

Please remember to sign your quarterly attestation for the Spring Quarter.

Click <u>here</u> to view the Return to Campus training, public health requirements and Health Pact. Click <u>here</u> to view visitor requirements.

#### **Educational Assignments and Visiting Researchers**

Please note that all in-person lab-related Educational Assignments for *non-UChicago students* continue to be suspended until further notice.

- This includes students/minors from the UChicago Lab School.
- This does not include formal programs for 18 yrs and up.
- There are new guidelines for students registered at UChicago. Click here to view the new guidelines.
- There are exceptions for Visiting Researchers.
- All visitors must comply with the COVID-19 visitor guidelines.
- Educational Assignments conducted remotely/virtually may continue.

Please submit the request forms  $\underline{\text{available on our website}}.$ 

Contact the ORS Administrator with any questions.

#### **Visitors on Campus**

The UChicago GoForward website provides guidance related to visitors on campus. Please visit https://goforward.uchicago.edu/visitor-information/ for more information.



Vendors must complete the Vendor Access Form prior to arriving.

#### **Phase 2 Vaccination Update**

(from UChicago's GoForward website)

"As of April 19, Phase 2 of COVID-19 vaccine distribution has begun in Chicago. This means that all city residents age 16 and over are now eligible for vaccination, with greatest availability expected in May and June. We strongly encourage all members of the University community to be vaccinated at the earliest opportunity, whether through the University's dedicated vaccine clinic, as a patient through UChicago Medicine (UCM), or through other providers. You can find a list of vaccination options at the UChicago Forward website."

#### **Maintaining Vaccination Records**

"We ask that all University students and employees keep a record of your COVID-19 vaccination – whether that is in the form of an electronic record (including a photograph of the vaccination record) or an official printed document."

For more information about **student vaccinations**, **vaccine timeline**, **and vaccine records**, please visit the UChicago Forward website.

#### **Upholding Public Health Requirements**

Use the UCAIR online form to anonymously report concerns about compliance with COVID-19 health

requirements. UCAIR received 57 reports this week related to COVID-19 issues, for a total of 938 reports since September 20.

## **Research Safety 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 administrator to request access.

#### **Training Policy Update**

The <u>Institutional Biosafety Committee</u> (IBC) determined that the Biological Safety trainings (listed below) should be taken every 3-years instead of every 5-years. This decision was made to synchronize the frequency of training along with the renewal of IBC Protocols, which also occurs every 3-years.

- Bio-001 Biological Safety- Recombinant DNA at BSL1 (rDNA/BSL1)
- Bio-002 Biological Safety- Recombinant DNA at BSL2 (rDNA/BSL2)
- Bio-003 Viral Vectors
- Bio-005 Biological Toxin Training

This change in policy will take effect beginning in Fiscal Year 22, on July 1, 2021. Notice of trainings will be emailed from our <u>automated system</u> depending on the expiration of your current training. You can view your training history in <u>EHSA</u>.

Please contact us at <a href="mailto:researchsafety@uchicago.edu">researchsafety@uchicago.edu</a> with any questions.

#### **HAZWOPER Certification**

(Hazardous Waste Operations and Emergency Response)

ORS offers a HAZWOPER Certification course specifically for work at UChicago. There are 2 courses available:

- 8 hour refresher for those who already have a certification (must show proof).
- 40-hour course for new trainees.

If anyone is interested in this course, please contact the ORS Administrator.

#### Training Module in Environmental Health & Safety Assistant (EHSA)

- To access online training modules: <a href="https://ehsa.uchicago.edu/training">https://ehsa.uchicago.edu/training</a>
- To register for live training sessions: <a href="https://ehsa.uchicago.edu/trainingregistration">https://ehsa.uchicago.edu/trainingregistration</a>

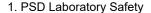
Contact the EHSA Administrator for technical assistance.

# **Research Safety Updates**

#### **Position Openings**

The Office of Research Safety with the Physical Sciences Division (*PSD*), and The Pritzker School of Molecular Engineering (*PME*), are searching for candidates to fill two Laboratory Safety Specialist positions.

For more information, or to apply, please visit the job postings below:



Specialist: <a href="https://uchicago.wd5.myworkdayjobs.com/en-">https://uchicago.wd5.myworkdayjobs.com/en-</a>
US/External/job/Hyde-Park-Campus/Laboratory-Safety-Specialist JR10126

2. PME Laboratory Safety Specialist: <a href="https://uchicago.wd5.myworkdayjobs.com/en-US/External/job/Hyde-Park-Campus/Laboratory-Safety-Specialist\_JR09625">https://uchicago.wd5.myworkdayjobs.com/en-US/External/job/Hyde-Park-Campus/Laboratory-Safety-Specialist\_JR09625</a>





We are excitedly expanding our program! Members from the ORS team have been very busy preparing our very own laboratory space to use in the near future. The following activities are just a few examples of what we plan to do:



- Relevant location to conduct in-person or Zoom training
- Mock laboratory for training purposes
- One-on-one or small group demonstrations, such as BSC usage or spill clean-up, use of fume hood, hazardous waste handling, chemical storage, laser eyewear storage, decontamination of radioactive material, radiation survey meters, laser alignment, Class 3b and Class 3 laser safety, and more!
- Research for the purpose of streamlining biological safety practices
- Prepare training videos for lab-related activities that include: BSC usage, spill cleanup, PPE donning/doffing, proper use of fume hood, chemical segregation and storage, transferring solvents into a flask, laser alignment, how to use a survey meter, and more!

The lab is almost ready, but we still have some fine-tuning to take care of. As soon as it is ready, hopefully by the time our next newsletter is due, then we will share this exciting location with photos!

#### **Potential Sharps Container Shortages Guidance**

Some federal agencies are warning of a potential bio-sharps shortage during the vaccination drive period: <u>Strategies for Sharps Disposal Container Use During Supply Shortages | CDC</u>

The CDC provided this guidance document: <u>Strategies for Sharps</u> <u>Disposal Container Use during Supply Shortages For Managers</u> and Purchase Agents (cdc.gov)



#### Knock Knock... Who is in your Lab?

The Office of Research Safety needs your help to keep track of personnel working in your laboratory.

The <u>EHS Assistant</u> (EHSA) system is used to track who is working in a lab. To view the current roster in your lab, click on the **Worker Registration** icon. This section allows you to add new researchers and remove people who are no longer there. We only need to know about people who perform wet lab bench work or work with lasers - clinical staff, computational researchers, and office managers do not need to be added.

Click here to view the guide for adding and removing workers with step-by-step instructions.

Laboratories working with recombinant DNA, pathogens, or biological toxins are required to have an Institutional

Biosafety Committee (IBC) protocol. All laboratory members working with such biohazards need to be added to the IBC protocol. These protocols are tracked in <u>AURA IBC</u>, not EHSA. In AURA, adding or removing people needs to be done by a **Personnel Funding Amendment**. While the Personnel Funding Amendment is processed very rapidly, please note:

- The PI must submit the amendment in AURA although other workers in the lab can edit the protocol, only the PI can click the submit button.
- After the amendment is approved, everyone added must log in to AURA, review the protocol, and acknowledge that they have been added.

If you have any questions about adding or removing people, please reach out to us at <a href="mailto:researchsafety@uchicago.edu">researchsafety@uchicago.edu</a>

#### **Lab Orientation Checklist**

Labs onboarding new employees should use the "Research Lab Orientation Checklist" to ensure that they have a good idea of what the standards are for lab safety requirements. It lays out the general requirements, and gives an idea of what safety equipment should be pointed out to new hires.

Please reach out to us at <a href="mailto:researchsafety@uchicago.edu">researchsafety@uchicago.edu</a>

## **Chemical Safety Blog**



#### What does "RAMP" up for safety mean?

RAMP is an acronym for students, faculty, staff, and researchers which helps them do a safe science in a laboratory setting.



Recognize Hazards



Assess the Risks of Hazards a



Minimize the Risks of Hazards



#### **Prepare for Emergencies**

For more info go to ACS chemical and laboratory safety page (https://www.acs.org/content/acs/en/chemicalsafety/basics.html).

Next ChemSafety TIP will be about



Recognizing Hazards, stay tuned!

# **Radiation Safety Presents: Laser Faire** (Laser Safety Blog)



#### **NHZ vs NOHD**

As we have mentioned previously, the radiation that lasers emit is coherent, directional, monochromatic, and therefore able to travel over long distances with minimal increase of beam diameter. Among the various specifications about the laser that manufacturers provide is the divergence of the beam. This characteristic explains the rate that the diameter of the beam increases over the distance the beam travels. For example, the diameter of a laser beam with a divergence of 1 milliradian (mrad) will expand 1m in diameter over the distance of 1 kilometer. Lasers used in research operations at the University of Chicago have a wide range of divergences including many with values less than 1 mrad. High-powered lasers, such as Class 3b and Class 4 lasers, with such low divergence sustain high irradiances and therefore remain dangerous over long distances.

Two specific terms used to characterize the distance a laser remains hazardous include the Nominal Hazard Zone (NHZ), and Nominal Ocular Hazard Distance (NOHD). These terms describe the distance from the source of the beam that the irradiance of the beam exceeds the Maximum Permissible Exposure (MPE) and remain capable of causing adverse biological effects. The NOHD describes the distance along the axis of an unobstructed beam where the beam remains hazardous and it is not uncommon for the NOHD of a laser used in research environments to be on the scale of hundreds of meters. The NHZ is the area where a direct, reflected,

or scattered beam is above the MPE. Depending on the characteristics of the laser and the incident surface, the NHZ may be as little as a couple of centimeters or greater than a meter. The NHZ is often used as the minimum area of a laser-controlled area to restrict access to individuals trained to recognize hazards associated with the lasers.

The laser safety officer performs a risk assessment for every newly registered laser on campus including the calculation of the NHZ and NOHD. The next time you are in your lab, check out the Standard Operating Procedure on your lasers and you will see the Laser Safety Officer included many values directly related to safety including the divergence of laser, the NHZ, and the NOHD! If you have any questions about your SOP, the lasers in your laboratory, or lasers in general, feel free to reach out at Lasersafety@lists.uchicago.edu

# **Quick Tips**



#### **Lessons Learned**

The Office of Research Safety drafted valuable lessons learned from actual incidents that occurred at the UChicago campus. Click here to view the full list.

Our newest lesson includes an incident that involved a **Ti:Sapphire laser** injury. Check it out here.

Do you have an accident or incident lessons learned to report? Contact us.

# **Around Campus**

#### Joint Research Safety Initiative (JRSI)

UChicago's student-led safety team, is putting on their annual *Peer Lab Walkthrough* competition this May with a new virtual format. The competition will see 22 volunteer student judges evaluate 14 research labs in Chemistry and PME in several categories of lab safety, primarily offering suggestions and sharing best practices for promoting safe research and a group-wide culture of student-inspired safety. All groups will receive a collection of the judges' recommendations, as well as compete for \$3,500 in prizes. Walkthroughs will conclude by May 21, and all are welcome at the Awards Ceremony, June 11.

The JRSI would also like to congratulate our own Sarah Zinn for receiving the ACS Chemical Health and Safety Graduate Student Safety Leadership Award! Sarah is a graduate student in Chemistry in the Engel Group, a founding member of the JRSI, and a published author on Joint Safety Teams.



#### 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 available on the Environmental Health and Safety's website (direct link also available on the ORS 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.

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

#### **Hazardous Waste Pickup**

Campus laboratory hazardous waste pickups regularly occur on Thursday's. Medical Center research laboratory hazardous waste pickups occur on Wednesday's.

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 <a href="mailto:safety@uchicago.edu">safety@uchicago.edu</a>.

For laboratories located in the Medical Center, contact the Environmental Health and Safety Medicine Office at 773.795.SAFE or <a href="mailto:safety.office@uchospitals.edu">safety.office@uchospitals.edu</a>.

Thank you for your continued cooperation with ensuring safety at the University of Chicago. Please feel free to contact Environmental Health and Safety at <a href="mailto:safety@uchicago.edu">safety@uchicago.edu</a> or 773.702.9999 with any questions.

- Click here to learn more about Hazardous Waste handling.
- Click here to view the Hazardous Waste Disposal Flow Chart

University of Chicago Accident and Incident Reporting (UCAIR)



<u>UCAIR</u> provides a user-friendly mechanism for reporting work-related accidents and incidents to <u>EHS</u> and <u>ORS</u>. For more information about UCAIR, visit the <u>FAQs page</u>.

We also encourage the reporting 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.

#### Medical Payments for UChicago Student Injuries (MedPay)

#### 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.

#### 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.

Submitting a timely report of the injury via <u>UCAIR</u> will route resulting medical bills for payment by the Office of Risk Management. It is important that UChicago students identify themselves as UChicago students when submitting via <u>UCAIR</u>.

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.

## **External Events**

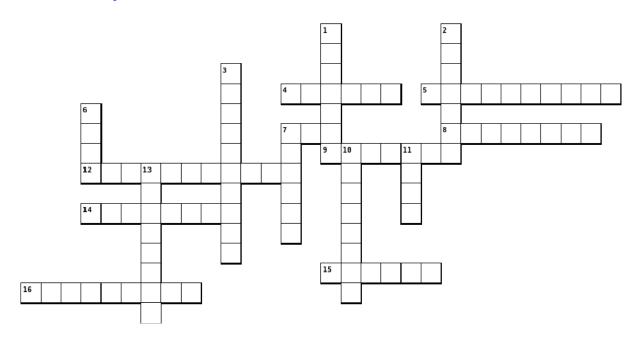
#### **ABSA's 1st Biosecurity Symposium**

April 21-22, 2021

ABSA is currently hosting their very 1<sup>st</sup> Biosecurity Symposium. The Symposium consists of papers, presentations, keynotes, posters, valuable networking opportunities, and exhibits. Missed it? No worries, this will be held annually! For more info, visit <a href="https://biosecuritysymposium.org/">https://biosecuritysymposium.org/</a>

# **Just for Fun**

### Laser Safety Crossword Puzzle (click for pdf)



#### Across

- 4. Inventor of the laser
- 5. The term for the rate the beam diameter increases with distance is the
- 7. What is the Safety "Speed Limit" for lasers?
- 8. For visible wavelengths, the \_\_\_\_\_ response will provide protection to low powered radiation in approximately
- 0.25 seconds
- 9. 400nm to 1400nm is known as the \_\_\_\_\_ hazard region
- 12. The O.D. provides a measure of the \_\_\_\_\_ of incident laser radiation
- 14. A reflection from a mirror-like surface is known as
- 15. According to university policy and state regulation, frequency of training required for laser users
- 16. The procedure where a majority of laser accidents occur

#### Down

- Krista Dillingham is the University of Chicago Laser Safety \_\_\_\_\_
- 2. The NHZ describes the area that indirect or scattered laser radiation may exceed the MPE, the N stands for:
- 3. All Class 3b and Class 4 lasers must be \_\_\_\_\_ within 30 days of acquiring or relocating them
- 6. In Illinois, the state department that oversees laser safety is known by a four (4) letter acronym:
- 7. According to university policy and state regulation, laser safety eyewear must be inspected every six (6)

10. Who is responsible for safety?

11. Abbreviation for distance an unobstructed beam remains above the MPE along the axis of transmission?

13. Ideally, all laser systems would be \_\_\_\_\_, providing not only increased safety, but keeping out contaminants such as dust

#### **Answers**

Across:

4. Maiman

5. Divergence

7. MPE

8. Aversion

9. Retinal

12: Attenuation

14: Specular

15: Annual

16: Alignment

Down:

1. Officer

2. Nominal

3. Registered

6. IEMA

7. Months

10. Everyone

**11. NOHD** 

13. Enclosed

# **Questions? Comments? Suggestions? Love?**

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



Learn more about the Office of Research Safety or our partners by visiting our website.

# **Related Links**

Office of Research and National Laboratories **Howard Taylor Ricketts Laboratory Environmental Health & Safety** Medical Center Environmental Health & Safety **Animal Resources Center** 





Institutional Care & Animal Use Committee
Institutional Biosafety Committee
Marine Biological Laboratory
Duke Infectious Disease Response Training
Joint Research Safety Initiative



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