

P.U.R.P.L.E. Safety Quarterly Newsletter

Northwestern
RESEARCH SAFETY

Promoting University Research Practices and Laboratory Excellence in Safety

A Safe Start to the Fall Quarter

From the Desk of the Executive Director of Research Safety

Welcome to the fall quarter! As laboratories welcome new students, faculty, and staff, and research activity increases across our campuses, this is a great time to refocus on the practices that keep our research community safe.

Safety is more than a requirement; it is an essential part of conducting excellent research. Whether completing training, selecting the right PPE, managing hazardous materials, or preparing for new research activities, the choices we make every day help protect ourselves and those around us.

Research Safety is here to be a resource and a partner.

We encourage you to reach out with questions, involve us early when planning new activities, and take advantage of the [resources available](#) to support your work.

Thank you for your partnership and commitment to safety throughout the quarter.

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Seasonal Changes Don't Change Safety Standards

Though warm weather may linger into the first part of Fall, the hazards in the lab remain. All researchers working in lab settings must adhere to appropriate attire and the necessary PPE for that space. This includes, but is not limited to, long pants that reach the ankle and closed-toed shoes that cover the entire foot. Polyester, nylon, and other fully synthetic fibers should not be worn in place of natural fibers. For eye protection, prescription eyeglasses cannot be used in place of safety glasses that meet impact resistance and chemical protection standards. Please stop by Research Safety on either campus to learn more about PPE we offer at no cost or check out the [Safety Supplies Catalogue](#).

Safety Designate Training

Research Safety has created a training for Safety Designates that highlights relevant resources and best practices for research labs. The training is optional but is a fantastic resource for new Safety Designates or for labs preparing for their annual lab safety inspections. You can access the training [here](#).

Lab Equipment Disposal Update

NU Sustainability has recently updated its equipment disposal process. Under the revised process, labs are responsible for the costs associated with removing large equipment from their spaces. Once Research Safety has cleared the equipment for disposal, [Reebie](#) can be scheduled to remove large lab equipment. If you have questions about these changes, please contact sustainNU@northwestern.edu. As for electronic recycling, find information about qualifying items and scheduling a pickup [here](#).

Safe Shipping: Know Before You Send

Northwestern has implemented a new process for all outbound domestic and international shipments through the [eShip Global](#) platform. Only Research Safety staff are authorized to assess and process hazardous materials, including chemicals, chemical samples, radiological materials, and lithium batteries for shipping. Labs are not permitted to ship these materials without prior authorization from Research Safety. For chemical shipments, researchers must submit an Intent to Ship form in Lumen and wait for Research Safety approval. Please allow up to five business days for processing. International shipments may require additional processing time. The only hazardous materials shipments that labs may process independently are biological materials and dry ice, and only if the Safe Shipping of Biological Materials and Dry Ice training has been completed, which is now available fully online.

Did you know...NU's BSL-3 Core Facility is open!

This state-of-the-art facility is designed to support:

- High containment research
- In vitro and in vivo studies with infectious agents
- Development of vaccines, diagnostics, and other therapeutics

Special equipment can be placed in the lab pending IBC approval. Training in high containment practices and procedures will be provided by Research Safety staff.

Visit the [BSL-3 Core](#) site for more information.



Don't Let Your Door Sign Fall Behind

Has your phone number changed? Has your laboratory safety contact changed? Have new hazards been introduced to your lab? Accurate door signage is important and required for all laboratory spaces as they communicate current hazards, emergency contacts, and required PPE. Spending a few minutes reviewing your door sign can help ensure that laboratory personnel, visitors, and emergency responders have the information they need to stay safe.

To update your door sign in Lumen:

- Navigate to the **Spaces** tab, select your laboratory location, and open the **Door Sign** subtab.
- At the bottom of the page, click **Build Door Sign** and select the **Standard-Icon Only, GHS** template.
- Be sure to select all hazards and PPE requirements applicable to the space.
- Once all information has been reviewed and updated, click **Print Door Sign** to generate a current copy for your laboratory.

Laboratories are responsible for ensuring door signs remain accurate and up-to-date. If you need to add or modify laboratory spaces, please contact your Research Safety Specialist for assistance.

New Policy from the U.S. Government

A new policy has been issued by the U.S. Government entitled "[United States Government \(USG\) Policy for Stopping High-Risk Life Sciences Research](#)". This policy defines areas of life sciences research that pose the highest risk to national security. The broad categories are outlined as Dangerous gain-of-function (DGOFF) research and international research of concern (IROC). The policy establishes a robust framework for mitigating risk and ensuring compliance. Guidance from the National Institutes of Health will be released by November 17th, 2026, with full implementation required by January 16th, 2027. Please reach out to the Institutional Biosafety Committee Office with any questions ibc@northwestern.edu.

Laser Inventory Change?

Keep Research Safety in Range

Planning to acquire, transfer, relocate, decommission, or dispose of a class 3B or class 4 laser? Please notify Research Safety before these changes occur.

Keeping us informed helps ensure the laser inventory, SOPs, and proper control measures remain accurate. Lasers not actively in use or that are retained for spare parts must remain documented until they are formally disposed.

Planning a laser inventory change? Reach out to Jeffrey Mercado, Laser Safety Officer, at jeffrey.mercado@northwestern.edu.



Current Check: Electrical Safety in Labs

in Labs

Electrical hazards are often overlooked until an incident occurs. From damaged cords and overloaded power strips to custom built equipment and high energy devices, even the simplest lab equipment can present electrical hazards if adequate precautions are not taken. By understanding the common warning signs and following safe electrical practices electrical related risks can be prevented.

You can refer to our [Electrical Safety Job Aid](#) for guidance on identifying common electrical hazards, understanding risks, and implementing safe work practices in the laboratory.

What's Really in Your Haz Waste?

Please remember to test the pH of any liquid hazardous waste containers before submitting them for pick-up by the Arcwood team. Recently, the hazardous waste team encountered a container that reported pH = 7 for a variety of organic solvents; the actual value measured by the Arcwood team was pH = 1. Let's keep everyone safe, including our hazardous waste disposal team, by being diligent about our waste accumulation and testing. pH strips are always available for free through Research Safety.

Explosion Hazard: Perchloric and Picric Acid

Perchloric and picric acids are potentially unstable reagents that pose catastrophic explosion hazards if they dry out, degrade, or come into contact with reactive metals. Both require strict, specialized storage and handling protocols to prevent friction- and shock-sensitive detonations in laboratory settings.

Perchloric Acid Safety

Perchloric acid is a stable, strong mineral acid at room temperature, but becomes a violently unpredictable oxidizer when heated or concentrated.

- Storage: Keep it in its original glass bottle within secondary containment (glass, porcelain, or ceramic) alongside other inorganic mineral acids. Never use organic or wooden trays, metal containers, or long-term plastic storage.
- Incompatibilities: Perchloric acid reacts violently with organic acids, flammable solvents, paper, wood, and strong dehydrating agents (like sulfuric acid).
- Inspection: Inspect containers monthly. Do not open bottles showing discoloration or white crystalline buildup around the cap, as these perchlorate salts are highly friction- and shock-sensitive.
- Heating: When heated, perchloric acid must be used exclusively in a dedicated Perchloric Acid Fume Hood equipped with internal water wash-down system. Standard hoods risk depositing explosive perchlorate crystals in metal ductwork.

Picric Acid Safety

Picric acid is stable when wet, but becomes a highly sensitive Class 1.1D explosive when dry.

- Storage: Always store it wet with 10% to 30% water by volume. Keep it strictly in glass or heavy-duty plastic bottles; never use metal containers or unlined metal caps.
- Incompatibilities: Picric acid reacts with copper, lead, zinc, and iron to form metal picrates, which are even more explosive than the dry acid.
- Maintenance: Record the date the bottle is opened and the date it is in use. Every time a bottle is opened, wipe the neck and threads with a damp cloth to prevent dry crystals from detonating when twisting the cap.
- Discovery of Dry Acid: If you find a forgotten, dried-out bottle, DO NOT touch or move it. Immediately evacuate the area and contact the Research Safety Office.

Sharps Safety: Microtome and Cryostat Best Practices

Microtomes and cryostats use extremely sharp blades and may involve exposure to chemicals or biological materials; all users must receive proper training before use. Proper training can reduce or eliminate cuts and scrapes, as well as exposure to chemical solvents and biological agents. Please follow these guidelines:

Safe Work Practices:

- Inspect equipment before use and ensure all components are in good condition.
- Handle blades with extreme care during installation, removal, and use.
- Use forceps or a brush to remove debris. Never touch blades with unprotected hands.
- Transport blades only in their protective case.
- Lock the handwheel and engage the brake before changing blades, trimming blocks, or cleaning equipment.
- Position the sample/block before inserting the blade.
- Use blade guards and protective covers whenever the blade is not actively in use.
- Wear cut-resistant (stainless steel mesh) gloves when changing blades. Available free of charge through Research Safety on both campuses!
- For cryostat work, wear cotton gloves under rubber gloves to protect against cold exposure.
- Remove the blade before cleaning the instrument.
- Never leave a blade in the instrument after use.
- Dispose of used blades immediately in an approved sharps container.
- Never attempt to catch a falling blade.
- Do not move or transport equipment with a blade installed.

Users handling human tissue must complete Bloodborne Pathogens Training.

In case of injury, pressure and cover minor cuts. For deep cuts, apply pressure to control bleeding and seek medical attention immediately.

MABioN Symposium

From August 3-5, 2026, Northwestern University and the University of Chicago co-hosted the 22nd Annual Midwest Area Biosafety Network (MABioN) Biosafety Symposium in Chicago. The symposium brought together biosafety professionals and researchers to discuss emerging challenges and innovations in biosafety.

Key topics included protein and biological toxin safety, novel tuberculosis vaccine research, synthetic biology, and the evolving role of artificial intelligence and robotics in biomedical research. These discussions highlighted the importance of scientific collaboration and timely communication in advancing both safety and innovation.

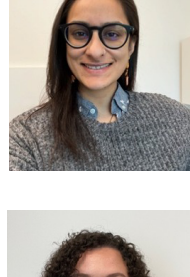
Featured presentations included Northwestern faculty members Gregory Smith, PhD, and Joshua Leonard, PhD, who discussed neuroinvasive herpesviruses and vaccine development and applications of synthetic biology in medicine and the associated biosafety considerations, respectively.

We thank our sponsors, speakers, organizers, and attendees for making this symposium a valuable and productive event.

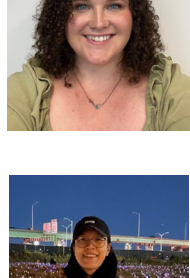


Meet our Newest Evanston Research Safety Team Members

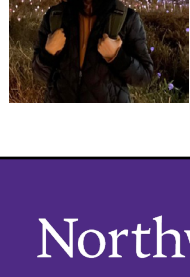
We're excited to welcome three new faces to the Evanston Research Safety Team! Get to know our new Lab Safety Specialists who are here to keep your lab safe, compliant, and running smoothly.



Shobhana Panuganti earned her Ph.D. in Materials Chemistry right here at Northwestern. She serves as the safety specialist for research laboratories in the Chemistry department, helping researchers develop SOPs and plans for their experiments to make sure everything is safe before the science starts happening. Outside of work, Shobhana lives in Rogers Park with her husband and two cats, enjoys experimenting in the kitchen, and has a strong appreciation for the practical applications of chemistry. Stop by for a chat anytime!



Jadelin Morrow earned her bachelor's in biology from Murray State University. She worked for three years as an Environmental Scientist, specializing in emergency response work, before joining the Research Safety team as a laboratory safety specialist. Jadelin serves groups in the material sciences, earth and planetary sciences, chemical and biological engineering, and anthropology departments. In her free time, she loves hiking and spending time outdoors.



Maria Pastor (a.k.a Iya) has a background in Mechanical Engineering. She looks at safety from both a practical and problem-solving perspective, and is always thinking about how things work and how we can make them safer and more efficient. Her goal is to help keep our workspaces safe, efficient, and incident-free, while still making room for great science to happen. Outside of work, Iya is a big fan of reading (always open to book recommendations!) and loves trying new foods, so if you have a favorite spot or dish, she'd love to hear about it.

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