The Lab Rat NEWS
May 2012
EMORY UNIVERSITY
Environmental Health and Safety Office

# Laboratory Safety in the Workplace – a Family Affair

When I first entered into research as young man I thought of the laboratory as an environment very different from other places, such as the classroom, office, or my kitchen or den at home. Some decades ago the rules for operating a laboratory, especially in terms of safety, were mostly unwritten. There was relatively little training as to how to make a laboratory a safe environment. Times have changed in regard to more training and I have also changed in regard to my attitude to the laboratory as a workplace.

In the laboratory and clinical environment, workers are often in the presence of potentially dangerous things, such as noxious chemicals, sharp instruments, heavy equipment, medical procedures, etc. While we have lists of ways and lots of rules to help minimize the dangers and likelihood of a problem arising, the amount of rules and regulations, which many of us may complain about, can often blur our thinking as to how to act safely in a laboratory and avoid harm. Who can remember every single regulation about every chemical or instrument? In my view, some very important things to keep in mind are a few general rules of common sense to follow that can help to minimize these dangers.

The most important common sense idea is to think of all your co-workers as being a part of your family. Family members take care of and look out for each other. We commonly follow this concept at home, where we take care to put dangerous things out of easy reach of children and ourselves. For example, we take the time to move something away from the edge of a desk, or firmly secure an object to the wall or table. At home we may remove a piece of ice from the floor to prevent someone from slipping, or keep our children's playthings put away to avoid tripping. Of course, we do this because we want to take care of our family members and ourselves, but it also just makes sense. In the laboratory, we can do the same thing by looking out for our fellow lab workers. We should use common sense approach to keep things organized and in their proper place. As well, we should use the proper equipment or prevention strategies to avoid injury to others or ourselves. This brings me to a second common sense rule. If I look out for others then it may encourage them to look out for me. I really appreciate it when someone in our laboratory helps to clean up a water spill or pick up broken glass, although they did not cause the problem. A little extra work in this regard can go a long way. It can encourage more of a group effort in the laboratory for maintaining a safe working environment.

The reason that such common sense rules can enhance the safety of the workplace is they arise from and reinforce the view that the laboratory is an extension of our home. This is not that odd really, since most of us spend as many hours or more at work as we do at home. So when you see a box in the wrong place, chemicals stored incorrectly, or sharp objects lying about the bench, take the time to do something about it yourself. Do not leave it up to someone else. If we all look out for each other and use some common sense, we may find that a lot of the laboratory rules regarding safety are simpler than we thought. We're all in this together. It's a Family Affair!

**Richard D. Cummings, Ph.D.**
Professor and Chair
Department of Biochemistry

## The Dirty ½ Dozen

The six most common rotten eggs found during Radiation Safety Inspections are listed starting with the most common. To assist you with future inspections, check out what's necessary to preserve your eggs and keep them fresh and free from deficiencies.

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| 1 | Contamination surveys are not performed during the work week radioactive materials were used | Perform the wipe test and Geiger-Müller survey at the end of each work week in which radioactive materials are used. As a best practice, perform the contamination surveys within one week from the actual use date of radioactive materials. |

## Training

Most of EHSO's Trainings are available online in Blackboard.
www.ehso.emory.edu for registration information.
Shipping Training
May 17th
Radiation Safety Training
2nd Tuesdays at 9:00 am
Laboratory Safety Training
3rd Thursdays at 10:00 am
Eye Wash Testing
Someone in your lab should test the eyewash station once a month.
Bio-safety Cabinets/ Chemical Fume Hoods Certification required annually.

## Chemical/Radioactive Waste Pick-up Schedule

Full Schedule here...
All **chemical** waste pick up should be requested by emailing **chem-waste@emory.edu**
All **radioactive** waste pick up should be requested via EHS Assist pick-up. **Chemical** waste disposal inventory form and/or **radioactive** waste inventory form should accompany all waste containers at the time of pick-up.

## PPE

Choice to be based on potential exposures involved:

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| 2 | Radionuclide Inventory is incomplete | The EHS Assist database should reflect the current inventory of radionuclide stock vials, including the records of volumes withdrawn from each stock vial. When a stock vial is empty, mark it as totally disposed to remove it from your current inventory. If using a radioactive materials usage log, enter this information into EHS Assist weekly. |
| 3 | Laboratory Personnel need to take Radiation Safety Training | Make sure that all personnel working with radioactive materials are listed on the radiation permit and have completed "Radiation Safety Training for Laboratory Research Personnel – Initial" or "Radiation Safety Training for Laboratory Research Personnel – Refresher" within the past 3 years. This is includes volunteers and visiting scholars. |
| 4 | Radioactive waste containers are not labeled properly and waste is not disposed of in correct waste steam | Prior to disposing of radioactive waste, label all containers with the Principle Investigator's name, isotope, waste type and EHS Assist Container number. Always verify that the container you are about to use for waste disposal is consistent with isotope and waste type (Dry, Liquid, or Liquid Scintillation Vial). |
| 5 | Documentation of contamination survey is not recorded properly | Wipe Test documentation should include (1) a map of areas surveyed, (2) the liquid scintillation counter's model and manufacturer, (3) date of wipe test, (4) the initials of the individual who performed the test, (5) results in units of dpm (or in cpm with LSC efficiency), and (6) a background reading.<br><br>Geiger-Müller survey documentation should include (1) the meter's model, serial number and calibration due date, (2) date of the survey, (3) the surveyor's initials, (4) results in units of mR/hr, and (5) a background reading. |
| 6 | Required records are unavailable | Save the following records for at least 3 years in your radiation safety binder: (1) authorization permit, (2) authorization renewal documentation, (3) amendments, (4) inspection reports, (5) Geiger Meter calibration certificates, and (6) documentation of contamination surveys. |

Eye: Glasses, goggles & face shields
Gloves: Appropriate for the type of procedure
Clothing: Gowns, lab coats, aprons, coveralls
Respirators: Appropriate for the type of procedure

## Fire Extinguishers

Check fire extinguishers in your lab:
A. Is it present and mounted in its proper location?
B. Is it readily accessible?
If it appears to need servicing contact the Maintenance HELP line at 7-7463
Contact Employee Health Services / Emory Healthcare Corporate regarding immunization information at (404-728-6437)

## Tell us how we are doing!

The newsletter has a new home. Every individual article is now hosted online at https://blogs.emory.edu/labratnews/

Got something to share? Tell us! Post comments, related articles/links, and safety concerns.

Feel free to also send your comments to **bio-safe@emory.edu**. We look forward to reading your ideas and comments!

## Building Liaisons

**Dionna Thomas 404-727-4673**
Woodruff, Woodruff Extension, & Winship (Clinics B & C)

**Meagan Parrott 404-712-9480**
Dental, Medical Office Tower, Emory Midtown, School of Public Health (CNR/GCR), & Rollins

**Steve Arehart 404-727-4171**
Clinic B-Eye Center, Pediatrics. North Decatur, Carlos Museum, Yerkes, Hope Clinic, Wesley Woods, Briarcliff Campus, & Anthropology

**Rodrick Esaw 404-727-1348**
Whitehead, Math & Science, Emerson, Oxford College, & Atwood

- This newsletter is a tool to help fulfill a legal requirement for ongoing safety training.
- Supervisors are responsible for ensuring that individuals in their area have read and understood the information that applies to their area.
- The signed newsletter should be placed into the PIs EHSO Lab Safety Binder.

Signature indicates: I have read and I understand the information in this issue of Lab Rat Newsletter. Use an additional sheet of paper for more signatures, if needed and attach to this document.

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