

Environmental Health & Safety

SafetyMatters

Inside this issue:

C-14 CERTIFICATE OF FITNESS

MANAGING LABORATORY SAFETY

WHEN THINGS GO WRONG — DO THE RIGHT THING

HOW EFFECTIVE IS YOUR BLEACH?

CLEAN AND GO GREEN

SAFE AND SOUND WEEK AT COLUMBIA

SPOTLIGHT ON SAFETY — HOW TO MANAGE SAFETY AND COMPLIANCE IN A RADIATION LABORATORY

The New and Improved EH&S Website

by Jillian Sacheli, Business and Information Technology Manager



Environmental Health and Safety (EH&S), in partnership with the Office of the Executive Vice President for Research (EVPR), is pleased to announce the launch of the new EH&S website:

<https://research.columbia.edu/content/environmental-health-safety>

ENVIRONMENTAL HEALTH & SAFETY

[HTTP://EHS.COLUMBIA.EDU](http://EHS.COLUMBIA.EDU)

IRVING MEDICAL CENTER
601 W 168TH ST
SUITE 44, 53, 54, 56
PHONE: (212) 305-6780
EHS-SAFETY@COLUMBIA.EDU

IRVING MEDICAL CENTER
RADIATION
PHONE: (212) 305-0303
RSOCUMC@COLUMBIA.EDU

MORNINGSIDE AND
MANHATTANVILLE
419 W 119TH ST
NEW YORK, NY 10027
PHONE: (212) 854-8749
EHS@COLUMBIA.EDU

The new site is part of a comprehensive redesign of the central Columbia Research website <https://research.columbia.edu/>.

The new EH&S website offers access to the same safety and compliance resources that laboratories need, and more, with a modern design and simplified navigation, including mobile-device compatibility to allow viewing from phones and tablets. Each content page provides important topical information from each EH&S program area, and includes relevant links and resources, where applicable.

Notable updates include:

- A personalized training finder
- Prominent links to frequently-used pages and services
- Consolidated form and policy pages
- Integration with the EVPR calendar

An added re-redirect will bring old URL links automatically to the new site. EH&S invites you to take a tour and welcomes your feedback. Please send questions or provide comments to jp2696@columbia.edu, and please update your bookmarks with our new URL.

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Recycled Paper



EH&S website offers enhanced navigation <http://ehs.columbia.edu>

Eating, drinking or applying cosmetics is prohibited when working in the laboratory.

When working in the laboratory, proper work attire (long pants, closed toe shoes) and PPE (e.g., laboratory coat, gloves and eye protection) must be worn.

Remember to periodically flush your laboratory cup sinks and floor drains with water to prevent sewer gases from migrating into your laboratory.

[On-line Chemical Waste Pick-up Request](http://vesta.cumc.columbia.edu/ehs/wastepickup)
<http://vesta.cumc.columbia.edu/ehs/wastepickup>

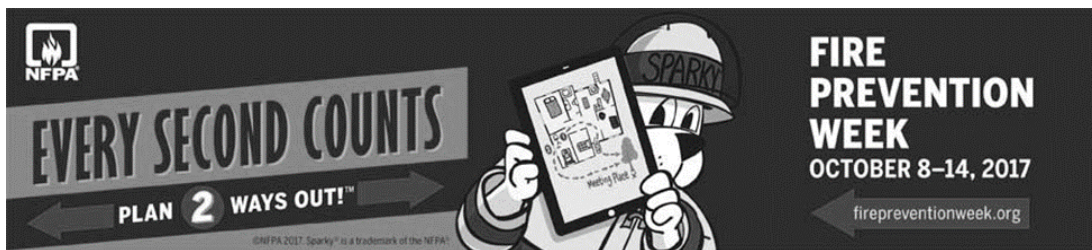
For Lab Fire Safety Prevention tips, check out FDN(wh)Y Me <http://www.ehs.columbia.edu/FDNYMe.html>

C-14 Certificate of Fitness by Andrew J Patterson, Fire Safety Officer

Is your laboratory operational in the late evenings, overnight, on weekends and/or holidays? The New York City Fire Code requires at least one person working inside a laboratory to have a Certificate of Fitness (C-14), not only during the day but at all times when a laboratory is in operation, including these “off” hours. EH&S can help certify laboratory personnel to ensure compliance with this important requirement.

The C-14 is a certification from the New York City Fire Department (FDNY) that qualifies an individual to supervise a research area, technically called a “non-production laboratory.” C-14 Certificate of Fitness holders are responsible for complying with FDNY regulations as well as overseeing fire safety in the laboratory. Staff who hold any of the following degree(s), plus 2 years post-baccalaureate research experience, can obtain a C-14: MS, MA, MPH, MD, PhD, or a BS. The classroom course and exam is administered by the EH&S Fire Safety Program. After the class, Fire Safety will submit the necessary paperwork to the FDNY and in approximately three to five weeks applicants will receive their C-14 card, at no individual cost.

For more information on obtaining a C-14 including requirements, documentation, class schedules and locations, please visit <http://ehs.columbia.edu/cof.html> or contact fire-life@columbia.edu.



Influenza Vaccination Season by Michael Kennedy, Associate Manager of Radiation

September is not just the beginning of the autumn season, but also the start of influenza vaccination (flu shot) season. These vaccinations are available at no cost to Columbians. At the Morningside campus, vaccination is available at medical services. At the Medical Center campus, vaccination can be obtained at two places: students can obtain a flu shot at student health services; for faculty and staff, flu shots are available at Workforce Health and Safety (WHS). Remember that flu vaccination helps to protect yourself, your patients, co-workers and loved ones.



Managing Laboratory Safety

by Kathy Somers, Associate Manager of Research Safety

In the [Winter 2017](#) issue of *SafetyMatters*, EH&S shared information about the laboratory safety program as well as the survey cycles and systems that support it. Additional outreach efforts have focused on increasing the visibility and usage of the Laboratory Information Online Network, or LION - <https://labcliq.com/login.cfm>. Many laboratory safety representatives have recently gotten to know the LION system since, and are actively using its many features to manage safety and compliance in the lab. The LION safety *dashboard* captures laboratory personnel, spaces, training credits, FDNY C-14 status, safety equipment, survey history and safety findings, and LATCH hazard assessments. In addition, through the LION dashboard, EH&S issues safety email notifications related to survey observations in your laboratory space, such as unsecured compressed gas cylinders, lapsed Biosafety Cabinet certifications, or personnel not wearing a laboratory coat while working with hazardous materials. The LION now features a new tool to assist laboratories with tracking and addressing these corrective actions stemming from EH&S safety surveys.

By logging in with your UNI at www.ehs.columbia.edu/lion, laboratories can navigate to the “Inspection Findings” tab to locate their survey history, make updates to findings in research spaces, and view the dates that various safety findings were corrected over time. Through this interactive management tool, laboratories can delegate and confirm safety checks directly with EH&S via comments, pictures, and task reassignments or extensions linked to their survey.

A simple “Managing Corrective Actions” guide (located at: <https://research.columbia.edu/sites/default/files/content/EHS/Lab%20Safety/HowToManageCorrectiveActions.pdf>) has been developed to help laboratories efficiently utilize the LION for survey tracking.

For more information about how your laboratory can best use the LION, please contact labsafety@columbia.edu or your [Research Safety Specialist](#).

When Things Go Wrong—Do the Right Thing

By Rob Velez, Health & Safety Specialist

On a Friday afternoon, a graduate student was performing an experiment which required a small vial to be closed tightly with a rubber septum. While closing the vial, the septum slipped – spilling a small amount of chemical onto the student’s arm. Acting quickly, the student immediately washed the area with soap and water. Meanwhile, other members of the laboratory called Environmental Health & Safety (EH&S).

This is exactly the type of small incident that may typically go unreported. In this case, the laboratory did the right thing by immediately contacting EH&S. The Safety Data Sheet (SDS) was reviewed with the student which indicated the chemical may potentially have delayed toxic effects after skin contact. This information confirmed that the student needed to visit Student Health Services for medical evaluation and have a subsequent follow-up.

While a laboratory coat would likely have prevented direct skin contact, this student prevented a more serious incident by:

1) not working alone in the laboratory; 2) wearing nitrile gloves; 3) immediately washing the affected area; 4) reporting the incident to EH&S; and 5) visiting Student Health.

All the right actions were taken when things went wrong.

How Effective is Your Bleach?

By Jessica Kuang, Associate Biological Safety Officer

Do you know whether the bleach you’re using is effective or not?

With its broad spectrum of antimicrobial activity, household bleach continues to be the disinfectant of choice and is widely used against infectious agents in laboratories. However, expiration dates must be factored in to ensure the maximum effectiveness when using bleach as a disinfectant.

The sodium hypochlorite contained in bleach is known for its strong oxidizing power, but overtime loses its potency as it degrades into salt and water. This is a reason why it is not advisable to order household bleach in bulk, since bleach remains most effective within the 6 months after production. As a good practice in ensuring compliance, EH&S strongly recommends that bleach bottles be marked with their received date as a reminder for restocking. For additional accuracy regarding expiration, the production date on Clorox brand bleach can be determined based on the last four digits of the serial number printed on the bleach bottle. The letter and first number are production plant identifiers, the next 4 digits are a Julian production code and the final 2 digits are a shift identification. Thus, a code such as E617064 would mean that the bleach was bottled in plant “E6” in year “17” on day “064, in other words March 4, 2017.

Furthermore, with cell culture being a common laboratory technique, appropriate inactivation of liquid aspirated off during media changes is important prior to disposal. Bleach is not only the leading choice for decontaminating cell culture waste, but also provides added advantages. Due to the oxidizing and high pH properties within household bleach, it turns the phenol red indicator in tissue culture media from pink to yellow/clear, therefore determining the success of the decontamination. Aspiration flask containing pink fluid indicates the use of expired or insufficient amount of bleach. For effective decontamination, clear/yellow color aspirated fluid should be achieved before sink disposal. If you have any questions or concerns, feel free to contact us at biosafety@columbia.edu.

Clean and Go Green by Andrew Chin-Sang, Hazardous Materials Specialist

In our technology-driven world, rapid advancements consequently mean a regular turnover of obsolete electronics. Many of these electronics, from computers and tablets to printers and scanners, contain hazardous components such as lead, mercury, and toxic metals. Columbia University recycles unwanted electronics in an effort to protect the environment and increase the sustainability of its operations. In July at the Morningside campus, Facilities and EH&S held another successful Clean & Go Green event, featuring opportunities to easily discard electronics and other large unwanted items. Thanks to the Columbia University community, the event was able to recycle over 14,000 pounds of unwanted electronic hardware. Other items such as batteries, lamps, paint, and more, were collected, and as a result, are no longer destined for the landfill. And while chemicals are not accepted at Clean & Go Green, they can be discarded from your laboratory at any time by submitting a hazardous waste pickup request form at <http://vesta.cumc.columbia.edu/ehs/wastepickup/>.

Visit <http://facilities.columbia.edu/clean-go-green> for more information about future event dates and locations as well as guidance on what items can be discarded. Clean & Go Green is held once in the summer and once each winter, and is a great opportunity for all Columbia affiliates to clean up their laboratories, offices, and/or classrooms and to be active stewards of the environment. Keep an eye out for the next event this winter 2017-2018.

Safe and Sound Week at Columbia University by Katie Bolger, Health & Safety Specialist

Environmental Health & Safety strives to ensure a safe workplace for all members of the Columbia community. This year EH&S partnered with the Occupational Safety and Health Administration (OSHA) to promote safety awareness during OSHA's inaugural Safe and Sound Week, from June 12th to June 18th, 2017.

Safe and Sound Week seeks to encourage and educate management, workers, and other professionals on the importance of safety in the workplace. OSHA's intent for this event is to communicate that a safe workplace supports a sound business. By effectively identifying and correcting workplace hazards, companies and institutions, including Columbia University, can prevent accidents, lower costs, and improve the work environment. Nationwide, over 100 companies and institutions participated in the event this year, whether as partnering associations or by holding events at their workplace.

In June, EH&S held a tabling session at the Medical Center campus to exhibit data from Research Safety survey programs, distribute informational pamphlets and fun giveaways, and most importantly, interface with the Columbia University community. Many different departments' staff visited the session, chatted with Safety Specialists and received information to take back to their colleagues.

Building on the success of this event, EH&S is looking forward to expanding the sessions next year to include the Morningside and Manhattanville campuses. If you stopped by the table this year and have feedback or further questions about the event or EH&S' presentation, please reach out to occusafety@columbia.edu.

Spotlight on Safety—How to Manage Safety and Compliance in a Radiation Laboratory

by Angela Meng, Associate Manager of Radiation Safety (Research)

Radioactive isotopes such as Hydrogen-3, Carbon-14 and Phosphorous-32 are commonly used tracers in chemical, biomedical, and environmental studies at Columbia University. The unique features of radioactivity require that researchers thoughtfully follow all safety considerations. The research use of radioactive materials (RAM) at Columbia University dates back over 70 years, and our continuing licensed operations are contingent upon regulatory compliance by all radiation laboratories. Ms. Inge Hansen, the Laboratory Manager for Dr. Richard Deckelbaum, shared with us her insights on how to effectively manage safety and compliance in a radiation laboratory.

Angela: Dr. Deckelbaum is the Principal Investigator of one of the largest active RAM laboratories at CUMC. You have 9 RAM users and 8 RAM rooms. Given the lab's size and activities, what strategies have you implemented to maintain an outstanding record of full compliance on the lab's quarterly radiation safety audits over the past 2 years? What is the "secret" or key takeaway that others can learn from your success?

Inge: I don't want to jinx it (*laughs*), but I think attitude is the key. I see an audit as a face-to-face communication opportunity with EH&S, and I use the feedback from the auditors to improve on what we do in the lab to make sure everyone is doing research safely and working in a safe environment. The EH&S staff members are here to help us to achieve that goal.

I don't know if there are any secrets to our success in compliance, but what I can say is that safety is one of the building blocks of good research. If you have a sense of responsibility for safety, you will find it's easy to be compliant. And I believe that building a safety culture in a lab is a top-down process. The Lab Manager, with the support of the Principal Investigator, plays a key role in lab safety. Dr. Deckelbaum has always been supportive of me to ensure our lab members are working safely.

Angela: The required documentation for RAM use includes RAM users' training records, RAM inventory, monthly surveys of RAM use areas, etc. How do you keep track of these records?

Inge: As you can imagine, it could be challenging to keep up with recordkeeping of RAM use in addition to the daily lab activities. I send out emails to our RAM users to remind them to take their radiation and research safety trainings, and I like keeping all records organized in our radiation safety binders. I'd be happy to try out the Radiation Safety module on LION when it is released for labs to maintain some of these records digitally.

Angela: Many labs have new recruits every year who may not have worked with radioactive materials before. How are new members trained in your lab to minimize the risks of incidents such as spills and contamination of radioactive materials and other chemicals?

Inge: It could take time and experience for a new person, especially a young person, to become comfortable handling radioactive materials on their own. When I have new lab members on board, what I do is that I spend time to train them side-by-side, do hands on demonstrations and coach them through each step of the experiment to make sure that they learn the right techniques of how to handle radioactive materials and other chemicals. When they get the hang of it, they are ready to work independently. If they have any questions, they know they can always come to me for help.

EH&S would like to thank Ms. Inge Hansen and Dr. Richard Deckelbaum for their partnership and commitment to safe use of radiation in the Department of Pediatrics, Division of Gastroenterology, Hepatology and Nutrition. For further information, the [Columbia University Radiation Safety Manual](#) provides a summary of all requirements for radiation laboratories.

Editorial Staff: Kathleen Crowley, Aderemi Dosunmu, Chris Pettinato, Chris Pitoscia

Graphics, Design, Lay-out: Michael Kennedy

Please share questions or comments with us at newsfeedback@columbia.edu