

Lab Safety Internal Auditing: Protecting students, researchers, and the community

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ACUA Virtual Learning Director Wendee Shinsato, CPA, CIA Assistant Vice Chancellor California State University



ACUA Virtual Learning Volunteer Jonathan G. Stadig, CIA, CRMA Senior Auditor University of Massachusetts



ACUA Virtual Learning Volunteer Christiana Oppong, CIA, CCSA Senior Auditor Princeton University





**Marc Rubin**Senior Director of Safety Services
Case Western Reserve University



Elizabeth Walton Senior Manager Deloitte & Touche LLP



**Tara Atkins**Manager
Deloitte & Touche LLP



# **Objectives**

Lab **Internal Audit Risks** Regulations requirements supporting lab safety Identify current Assess a sample of Explore strategies Discuss the risks regulations and related to lab Internal Audit requirements and safety from an potential future responsibilities for departments can operational, regulation changes stakeholders deploy to audit lab compliance, related to laboratory involved in safety and support their lab safety safety laboratory activities financial, and reputational leaders standpoint



#### Through which organization does your institution's lab safety program report to?:

- a. Research
- b. Campus Safety
- c. Operations
- d. Office of General Counsel
- e. Other
- f. I'm not sure



#### What is included in lab safety?

The scope of areas that are included in the bucket of 'lab safety' seems to be continually evolving

- Chemical hazards (cancer causing agents, toxins, irritants, corrosives, sensitizers, etc.)
- Biological hazards:
  - · Biological agents
  - · Bloodborne pathogens
  - · Research animals
- Physical Hazards:
  - Ergonomic hazards
  - Radiation
  - Noise

- · Safety hazards:
  - · Autoclaves and sterilizers
  - Centrifuges
  - Compressed gasses
  - Cryogens
  - Electrical
  - Fire
  - Lockout
  - Trips, slips, falls





#### Has your institution's Internal Audit team performed an audit of lab safety previously?:

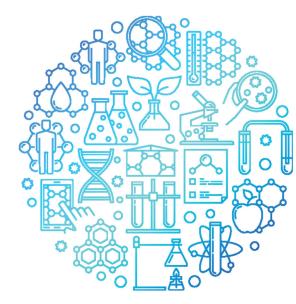
- a. Yes
- b. Yes, but the scope was limited
- c. No
- d. I'm not sure



#### **Emerging risks**

Lab safety risks continue to change and shift. It's important to be aware of the trends and design internal audit workplans to focus on the most significant risks. Some of the emerging risks include:

- Reduced oversight from researchers and principal investigators
- Deferred maintenance of labs and lab equipment
- Staffing shortages in Environment, Health and Safety / Lab Safety Oversight departments
- Training/certification requirements for lab safety personnel
- Culture of safety





#### Which of the following are lab safety considerations [select all that apply]:

- a. Ergonomic hazards
- b. Research animals
- c. Fire
- d. Trips, slips, falls



### Regulatory changes impacting labs

What's happening in the regulatory space related to lab safety?

- · Advance manufacturing
- · Pathogen research
- · OSHA injury reporting
- Chemicals of interest Department of Homeland Security (DHS)
- Undue foreign influence
  - Conflict of interest (COI)
  - Export controls





# Four of the Occupational Safety and Health Administration's (OSHA) pillars related to laboratories are:

- a. Policies, Training, Enforcement, and Hazards
- b. Policies, Training, Enforcement, Hazard Recognition, and Solutions
- c. Standards, Culture of Safety, Enforcement, Hazard Recognition, and Solutions
- d. Standards, Culture of Safety, Training, Hazard Recognition, and Solutions



#### How Internal Audit can help

Internal Audit's support of lab safety owners can take many forms. Typically, an effective place to start is a conversation with your lab safety leadership team to understand their perceived risk landscape and their existing oversight programs

- Examples of potential internal audit programs/activities that can support lab safety leadership include:
  - Review policies, procedures, and processes and their alignment to OSHA policies
  - Review lab inspection and remediation processes
  - · Advocating for lab safety to the university
  - Upskilling lab safety personnel on audit processes





#### What are the potential scope areas in a lab safety internal audit

As shown earlier in the presentation, lab safety includes a broad scope of activities and controls. As such, it's important to be intentional with the scope selection for a lab safety internal audit. Below are some examples of a few scope areas that can be considered:

- Laboratory inspection program, documentation, and controls
- Chemical hygiene plans and controls
- Radiation programs
- · Incident response readiness and protocols

- Understand IT systems used to manage lab safety
- Understand types of materials (e.g., hazardous) found in labs and their relevant regulations
- Confirm if trainings are effective and completed



#### Common observations from lab safety internal audits

Below are some examples of a few observations found in lab safety internal audits at a variety of institutions:

- · Insufficient oversight of students in the lab
- Noncompliance with training requirements (especially requirements for re-training or annual trainings)
- Noncompliance with chemical storage programs
- Lack of sufficient chemical disposal options
- · Insufficient laboratory inspections



# **Questions & Answers**



#### QR Codes to LinkedIn



Marc Rubin mdr6@case.edu



Elizabeth Walton elwalton@deloitte.com



**Tara Atkins** taratkins@deloitte.com



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