IMPROVE LAB SAFETY CULTURE: ACTING ON THE APLU GUIDELINES

The presentation will begin at 1:05 EDT
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Q&A WILL BE AT THE END

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IMPROVE LAB SAFETY CULTURE: ACTING ON THE APLU GUIDELINES

June 30, 2016
NANCY WAYNE - Moderator

- Professor of Physiology at the David Geffen School of Medicine at UCLA, since 1992
- Associate Vice Chancellor for Research at UCLA, since 2010
- Founding Chair of the Advisory Board of the UC Center for Laboratory Safety, since 2011
- President of Women Advancing Together®, helping women overcome barriers in their careers, since 2015
MARK MCLELLAN - Panelist

- APLU Lab Safety Task Force co-chair
- Currently: VPR Utah State University & Dean of Grad Studies - all of EHS reports to me
- Prior: UFL - Dean, TAMU - Research Center Director, Cornell - Dept Chair
- Food Scientist, Fellow - Serving: member, FDA Science Council & Chair, USDA Science Advisory Council
- Pastimes: fly fishing, snow shoeing, hiking, photography
TAYLOR EIGHMY - Panelist

- APLU Lab Safety Task Force Co-Chair
- Currently: VCRE University of Tennessee, Knoxville (EHS does not report to me), Professor of Civil & Environmental Engineering
- Prior: VPR/SVPR at Texas Tech University, Interim VPR at UNH (EHS did report to me at TTU and UNH)
- Academic: Environmental engineer, AAAS Fellow, NAI Fellow, AEESP Diplomate, formerly on U.S. EPA SAB
- Pastimes: Fly fishing (with dogs), hiking (with dogs), kayaking (with small dog)
KACY REDD - Panelist

- Director of Science and Mathematics Education Policy, Association of Public and Land-grant Universities (APLU).

- APLU, with a membership of 235 public research universities, is a research, policy, and advocacy organization dedicated to strengthening and advancing the work of public universities.

- PhD in Neuroscience from Columbia University; research experiences at UNC Chapel Hill, NIH, Stanford, Columbia, Rockefeller, and Yale.
POLL
KEY LEARNING POINTS

- What is the APLU/AAU Guide to Implementing a Safety Culture in Our Universities, and how is it different from other guidelines that came before (e.g., NAS and ACS guidelines)?

- What is the role of the President or Chancellor, VPR, and EH&S leadership in implementing the recommendations?

- How can EH&S best engage campus leadership and researchers in learning about and helping implement the guidelines and toolkit?

- What are the recommendations and tools available to EH&S for developing or improving a culture of lab safety?

- How can the research and health & safety communities get involved in updating the Guide by adding tools and resources?
What is the APLU/AAU guide to implementing a safety culture in our universities, and how is it different from other guidelines that came before (E.G., NAS and ACS guidelines)?
Implementation Guide

1. Call for Action
2. Core values of safety
3. Implementation Recommendations
4. Analysis tying to foundation reports
5. Toolbox
   • Background info
   • Strategies
   • Best practices
What is the role of the President or Chancellor, VPR, and EH&S leadership in implementing the recommendations?
Leadership Roles

1. APLU and AAU convene presidents, provosts, VPRs
2. Specific outreach to presidents and VPRs
3. Informing about serious accidents
4. Framing the critical role of leadership as champions
5. Providing tools, resources, path forward
How can EH&S best engage campus leadership and researchers in learning about and helping implement the guidelines and toolkit?
1. Conversation with leaders.
2. Conversation with faculty.
3. Find a Champion, FIND a champion!
4. Helping get there – training, resources.
5. Leave the policeman role for now.
6. Toolbox items for president’s talking point to every meeting.
7. Talk context: “university family”
What are the recommendations and tools available to EH&S for developing or improving a culture of lab safety?
2. The president/chancellor designates a campus lead and leadership team to begin the process. The president/chancellor considers appropriate committees to help implement a culture of safety, including a safety committee of faculty, Environmental Health and Safety (EH&S) officers, and other representatives that can provide formative feedback to researchers, educators, and staff.

**KEY RESOURCES**

*Creating Safety Cultures in Academic Institutions (ACS, 2012)*

Recommendation 13. Establish a series of safety councils and safety committees from the highest level of management to the departmental level or lower. Each of these committees reports, in turn, to a committee that is higher in the hierarchy of the institution.

*Creating a Safety Culture (OSHA, 1989):*

Establish a Steering Committee comprised of management, employees, union (if one exists), and safety staff. The purpose of this group is to facilitate, support, and direct the change processes. This will provide overall guidance and direction and avoid duplication of efforts. To be effective, the group must have the authority to get things
Role of Environmental Health & Safety Personnel to Strengthen the Safety Culture:

1. Work collaboratively with research personnel.
2. Encourage open and ongoing dialogue about safety to promote a questioning attitude, a healthy respect for what can go wrong, and continuous learning from operational experiences.
3. Assist the university community in the evaluation of hazards and the development of procedures and other resources.
4. In coordination with the research community, committees, and leadership, develop best practices and documentation to convey institutional standards.
5. Provide a central repository of safety resources to the research community.
6. Monitor and communicate regulatory and advisory changes to the research community.
7. Collect and report safety metrics to the research community, committees, and leadership.
8. Deliver training and education to the research community.
A Tool Box

Cultural adoption is unique to each institution. One size does not fit all.

Tools are expected to evolve.

Focus on cultural change rather than compliance.
Tools to support

1. Institution-wide dynamics and resources
2. Data, hazard identification and analysis
3. Training, learning and application
4. Continuous improvement
Recommendations: Data, Hazard Identification, and Analysis

Recommendation 13. The institution implements routine hazard analyses and includes them as integral components of undergraduate and graduate education; thesis, dissertation, and funding proposals; and experimental design for all experiments.

Tools for Recommendation 13

- General guidance for hazard analysis based on national standards
- General Standard Operating Procedures (SOP) guidelines and examples
  - Document Management (Available at UC Center for Laboratory Safety)
  - SOP Guidelines (Available at Utah State University)
  - SOP FAQs (Available at Utah State University)
  - Liquid nitrogen handling guidelines (Available at Utah State University)
- Hazard assessment tools for the laboratory
- Hazard assessment guidance for fieldwork
- Comparison of Recommendation 13 with other key resources
How can the research and health & safety communities get involved in updating the Guide by adding tools and resources?
Get Involved: Add Resources and Tools

- The toolbox is not comprehensive, and the task force welcomes additions to the toolbox, which may be submitted to https://www.surveymonkey.com/r/CNT9SM3.
YOUR CHALLENGES IN LABORATORY SAFETY

- How do the Guidelines address PI engagement in and responsibility for lab safety?
- How do the Guidelines address the need to make implementation of safety practices easy for overburdened researchers?
- How do the Guidelines address lack of funding and support from administration?
- How do the Guidelines address improving communications about safety to all stakeholders?
How do the guidelines address PI engagement in and responsibility for lab safety?
PI Engagement & Responsibility

1. Facilitate open dialogue
2. Provide specific roles for faculty: fundamental to scholarship and excellence, modeling good safety behavior, hazard analyses, safety training requirement, incorporation of training into scholarly works, lessons learned, ultimate responsibility
3. Ease implementation to reduce burden
How do the Guidelines address the need to make implementation of safety practices easy for overburdened researchers?
Over burdened PIs …

1. Good Science is Safe Science
2. Recommendations = OSHA requirements
3. Safety training and education – not alone
4. Flexibility is essential – college & dept. level
5. Funding for safety expert training (USU)
6. EH&S – partner, not policeman
7. Culture change takes time
8. Implement Communication systems critical
How do the Guidelines address lack of funding and support from administration?
Funding and Support

1. Call to Action from APLU and AAU, NAS, and ACS. Call to resource these efforts.
2. Cost is too high not to take action.
3. We welcome examples of creative funding models.
How do the Guidelines address improving communications about safety to all stakeholders?
Improving Communication

1. Statement of commitment from president
2. Core institutional values
3. Designation of a campus lead and leadership team
4. Campus dialogues
5. Articulation of a shared vision/path forward that works best for the institution
6. Embedded communication strategy
7. Near miss system
Q&A
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QUESTIONS & ANSWERS

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Thank you.

Lab Safety Task Force Members

Taylor Eighmy (Co-Chair), University of Tennessee, Knoxville; Mark McLellan (Co-chair), Utah State University; Gene Block (Honorary Chair), University of California, Los Angeles; Kimberly Espy, University of Arizona; Mridul Gautam, University of Nevada, Reno; Kimberly Jeskie, Oak Ridge National Laboratory; Dawn Mason, Eastman Chemical Company; Jan Novakofski, University of Illinois at Urbana-Champaign; Patty Olinger, Emory University; Joanne Polzien, Michigan Technological University; Lesley Rigg, University of Calgary; Ara Tahmassian, Harvard University; Erik Talley, Memorial Sloan Kettering Cancer Center; William Tolman, University of Minnesota Twin Cities; Nancy Wayne, University of California Los Angeles; Alice Young, Texas Tech University; STAFF: Steve Bilbao, Utah State University, Robert Nobles, University of Tennessee, Knoxville, Kacy Redd, Association of Public and Land-grant Universities

Organizations

APLU’s Council on Research (CoR); Association of American Universities (AAU); American Chemical Society (ACS); Council On Governmental Relations (COGR); Council of Graduate Schools (CGS); National Academies of Sciences, Engineering, and Medicine (NASEM); U.S. Chemical Safety and Hazard Investigation Board (UCB); Oak Ridge National Lab; Eastman Chemical Co; Centers for Disease Control and Prevention (CDC); American Biological Safety Association (ABSA); Association for the Accreditation of Human Research Protection Programs (AAHRPP); Campus Safety, Health, and Environmental Management Association (CSHEMA); Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC); Federation of American Societies for Experimental Biology (FASEB); Federal Demonstration Partnership (FDP); University Risk Management and Insurance Association (URMIA); National Association of College and University Attorneys (NACUA); National Association of College and University Business Officers (NACUBO); National Postdoctoral Association (NPA); Council on Undergraduate Research (CUR); and Council of Colleges of Arts and Sciences (CCAS).

Institutions

Duke University, University of South Florida (FDP), University of Pittsburgh, University of California, University of Nebraska Lincoln, The University of Utah, The University of Texas Health Science, Auburn University, University of Notre Dame, University of Arizona, Texas A&M University System, University of Maryland