US safety initiatives as influences on global laboratory safety

Russ Phifer National Registry of Certified Chemists

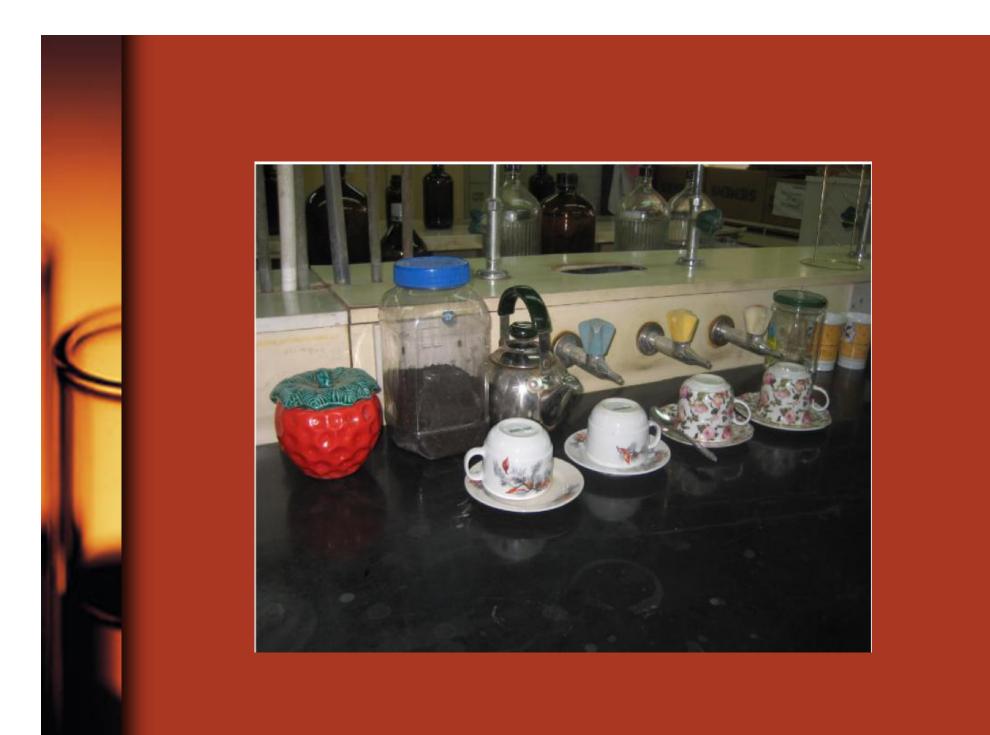
English is the language of science

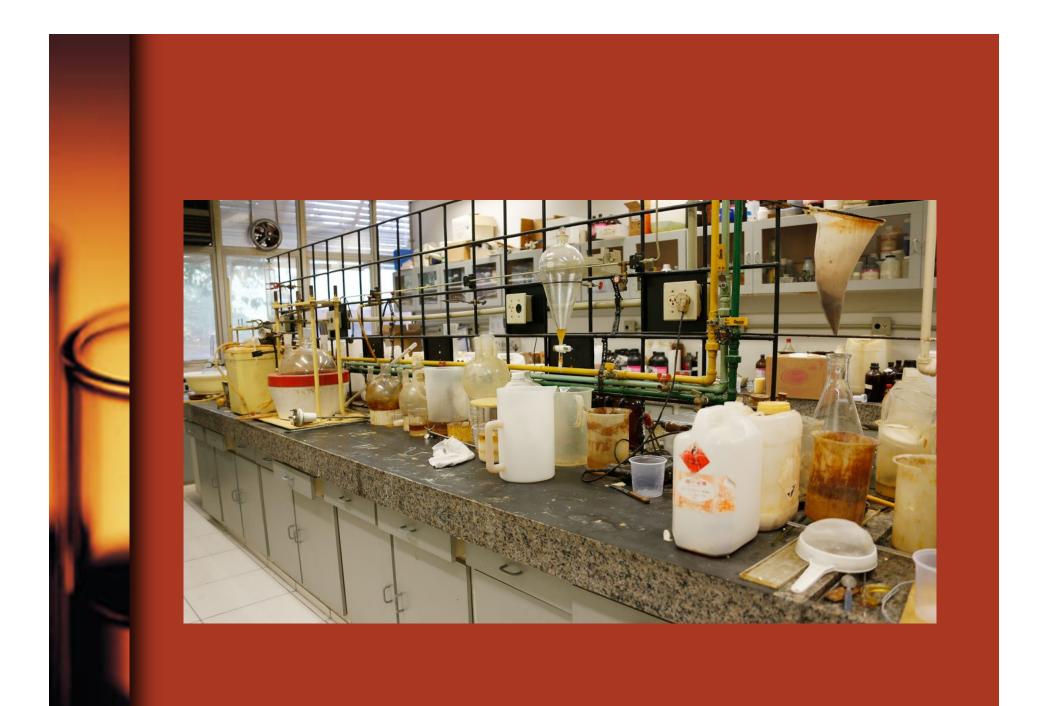
 More than three-quarters of scientific papers today are published in English—and in some fields it is more than 90 percent

 As the world's largest organization of scientists, the American Chemical Society has a responsibility to be a leader in the field of chemical safety

What does lab safety look like internationally?









What is necessary for good lab safety practice on a global scale?

- Resources
 - Engineering equipment
 - PPE
- Training
 - Safe procedures / best practices
 - Hazard/risk assessment
- Safety Culture /attitude

Regulatory Considerations/ US Government Resources

US Occupational Safety & Health Administration

 Applies in US; procedures also followed at many US facilities abroad, including appointment of a Chemical Hygiene Officer

– National Research Council

- Prudent Practices in the Laboratory
- Chemical Laboratory Safety and Security Toolkit
 - Committee on Promoting Safe and Secure Chemical Management in Developing Countries

American Chemical Society

- Committee on Chemical Safety
 - Safety in Academic Laboratories, 8th edition
 - Translated into Spanish and Arabic and readily available online

Division of Chemical Health & Safety

- Listserv available internationally; members in 33 countries
- Pending online lab safety certificate program to prepare graduates for safety requirements in industry

Other US Organizations









Safety procedures that translate well globally

- Hazard identification
- Worst case scenario studies
- Chemical Safety Levels
 - To establish engineering & PPE requirements
- Hazard/risk tools
- Collaboration is important!

Thank you!

References

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- 3. International attitudes towards lab safety, Berkeley Science Review (<u>http://berkeleysciencereview.com/lab-safety-data/</u> accessed 1/4/2018)
- 4. Chemical & Engineering News, January 22, 2018, US Dominance in Science and engineering is waning, Andrea Widener