Creating a Safety Culture

- How Does One Create a “Safety Culture” in the Laboratory?
- Start by Making Safe Science as Important as Good Science.

Creating a Safety Culture

- Safety is No Accident
  - You have to MAKE it happen
  - That means
    - Time
    - Effort
    - Resources
    - Money

Creating a Safety Culture
Making Safety Happen

- *Assign* and *Empower* Someone to:
  - Be responsible for Chematix compliance
  - Conduct weekly lab inspections
  - Conduct weekly eyewash checks
  - Conduct monthly fire extinguisher checks

Making Safety Happen

- Health & Safety recommends that lab inspection and equipment check duties rotate weekly to different members of the group to give everyone a sense of “ownership” and responsibility for overall lab safety.

Creating A Safety Culture
Lab Self Inspections

Should Look At:

- Housekeeping
- Accessibility of Emergency Equipment
- Flush the eyewash/document
- Gas cylinders, restrained/capped when not in use/ number within allowances/ no toxic gases that have not been approved
- Spill kits- present, appropriate, and complete
- Hand washing facilities- soap and towels available
- Chemicals have Chematix labels- no one has been sneaking chemicals into the lab
- Egress- Main aisles are 48" unobstructed/ others 36" unobstructed
- Doors not blocked
- Labeling- all in house labels are RTK compliant
- Waste is labeled appropriately, in secondary containment, and segregated as needed
- Electrical panels/boxes have 36" of open space in front
- Food in the lab
- Other issues specific to your lab- s/a calcium gluconate is easy to find

Creating a Safety Culture Training$_1$

Make Sure Group Members are Adequately Trained:

- RTK-annually
- Fire Safety Training- once
- Basic Lab Safety-every 3 years
- waste training- every 3 years
- training for shipping- every 3 years
- training for gas cylinder handling
- Biosafety/Radiation Safety/Chemical Safety as appropriate

Creating a Safety Culture Training$_2$

- Lab Inspectors are required to verify that lab users have had adequate training to be in the lab.
- Place copies of training certificates in an envelope posted near the door.

Creating a Safety Culture Training$_3$

Create a New Lab User Orientation List

- Cover things like exit locations, emergency equipment, PPE and attire requirements, evacuation procedures, hazards that are unique to your lab s/a specific chemicals or equipment
- Have the new person sign the list when you are done- File it.

Creating a Safety Culture
SOPs

- Create a library of Standard Operating Procedures for everything you do routinely- keep it in a notebook
- For highly hazardous procedures- add a signature page and make everyone read and *sign* that they have read it

Creating a Safety Culture
Pre-Planning

- Teach your group members to plan their experiments from start (virgin chemicals & equipment) to end (waste)
- Make locating everything needed ahead of time a requirement per the SOP

Creating a Safety Culture
Surprise Safety Drills$_1$

- Announce to your group members that you (or one of your senior staff) will be holding "surprise drills" A few days later, have a senior staff member hand someone in the lab (chosen at random) an index card that says one of the following things-
- This is a drill, please demonstrate the proper procedure as if you had
  - Just splashed acid in your eyes
  - Just spilled sodium hydroxide in your lap
  - A fire break out on your lab bench

Creating a Safety Culture
Lab Drills$_2$

- Group members would not be required to actually pull the shower ring, for example, but they would be required to move to the closet shower/eyewash/ fire extinguisher quickly and without prompting to demonstrate that they know were it is and how to turn it on.

Creating a Safety Culture
Annual Lab Clean Outs[1]

- Make lab clean outs an annual event that everyone must take part in (don't just dump it on your lab manager)
- Make attendance mandatory for all group members to ensure that they are active participants in the safety process.

Creating a Safety Culture
Annual Lab Clean Outs$_2$

- Work best when done in conjunction with one of the chemical inventory reconciliations- get rid of aging PECs and things you don't use anymore (this includes samples).

Creating a Safety Culture
Annual Lab Clean Outs

- Employees are required to clean out their space (and freezer storage) and dispose of left-over chemicals *prior to* leaving the lab group (or receiving their last pay check).

Creating a Safety Culture
Monthly Safety Meetings$_1$

- Hold monthly meetings-
- Your most valuable resource is your time.
- If you don't demonstrate that safety is important to you by taking a little time out of your busy schedule every month to talk about safety-
  - Then nobody is going to pay attention to anything you say!

Creating a Safety Culture
Monthly Safety Meetings$_2$

- Can be part of a another meeting
- Don't have to be very long
- You can talk about recent events, drills, near misses, spills, etc.
- You can use them to show safety videos borrowed from HS.
- You can bring in guest speakers on a safety topic of your choosing (HS does requests)

Creating a Culture of Safety

- Set a Good Example-
- Rules about hygiene, Personal Protective Equipment (PPE), and proper attire won't mean anything if you don't follow them yourself:
- Neither will they mean anything if you won't correct the behavior of subordinates who don't follow them.

Creating a Culture of Safety

- The time and effort that you expend on safety will be directly reflected in the safety practices of your group members