University of Iowa Chemical Safety and Responsibility Stewards: Finding Our Place in the Chemistry Department

Jessica L DeYoung, Lindsey C Applegate, Hannah T Nennig, Madeline J Parker, Leah J Scharlott

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Why should safety be a priority for students?

There are a lot of things competing for a graduate student’s attention

Some are mandatory (teaching, research, lab duties)

Some are “optional” think more professional development type opportunities

After graduation, student's pathway often will depend on the skillsets they develop in the “optional” activities
The University of Minnesota formed Joint Safety Teams to bridge gaps in communication and to address frustration of the front-line workers.

Since this, the organizations have shown to be useful in discussions of issues often resulting in resolutions that benefit both the authority of the organization and the students.

The Chemical Safety and Responsibility Stewards (CSARs) were formed in 2017.

The cited influence was the University of Minnesota and their success in bridging the gap between front-line researchers (like graduate students and post-docs) and the institutional powers that be.

As we have grown, there has been heavy influence of the ACS workshop *Empowering Academic researchers to strengthen safety culture* (Martin, Miller et al. 2020).
What do JST's do?

(Martin, Miller et al. 2020)
How does this fit into “finding your place”?

- How we exist (and why we chose these specific routes)
- What we do and how it impacts the department
- What (if anything) you should take away from this presentation
How does the CSARS exist at Iowa?

Two highlights here

1. We are an organization focused on safety at UI
2. We function more as a platform for students to lead and get involved with inspired and created initiatives
External funding provides programming for the department and helps students with funding practice.
Maintaining the safety cabinets

Like most institutions spill kits are required. The CSARS have made a master “cheat sheet” for labs to build a better spill kit. There are building-wide spill kits that are available for spills and issues in the hallway. It is hard to monitor the use of the materials within the spill kit, so we volunteered to do quarterly checks to ensure these materials are readily available.

Providing a routine service to the department creates habitual involvement and shows the value of your organization.

Leah Scharlott
Coffee hour with EHS

Pre-research ramp up the environmental health and safety rep (Rachelle- pictured to the right) met with labs to discuss what is known and what is up to labs to decide about the ramp up process. We used ACS RSO funding for giveaways incentivizing attendance at the webinar. Most students publish in ACS journals within the department, but they might not be ACS members with access to programming like this that could help them.

It is important to provide a space for students to address safety questions/concerns without fear of repercussions.

Leah Scharlott
Outreach with local middle schools

Local schools have contacted the department hoping to get some informational videos based on their own curriculum. We collaborated with a sixth-grade class to make these videos with a special emphasis focusing on safety for each of the demonstrations we chose.

Outreach can help show what chemists do and why our safety measures are important.

Hannah Nennig
First year training videos

There are some institution specific safety regulations for day-to-day labwork, but there is some work that can be universal. We are working on creating videos to highlight fundamental safety concepts/how-to protocols for various day-to-day tasks as a resource for undergraduate and early-career graduate students.

Making safety information readily available can lessen barriers for all researchers.

Lindsey Applegate
As means to grow our network, we have been a part of moderating and facilitating the Empowering Academic Researchers to Strengthen Safety Culture workshop.

Being a part of a bigger project can benefit students and their home institutions.

Lindsey Applegate
COVID response

A student representative was chosen to be on the research ramp up committee. With this, it was easier for the faculty to stay in touch with the status of students as we were getting back to research.

This provided a point of contact for students to address issues that would be brought up to the committee.

Distributing documents outlining building expectations.

Creating a survey assessing how prepared they were to return to research.

Creating a survey after the start of classes to assess the situation of RAs and TAs.

Individual students, as well as student organizations, can help bridge the gap of communication in the institutional hierarchy.
Highlighting initiatives

We want to make sure that every member is appreciated so last summer we focused on highlighting members, their efforts and why they joined.

These highlights also help with visibility of our initiatives- helping others understand how we are contributing to the department.

Showing that you value student’s work can boost morale and advertise opportunity for prospective participants.
What does the future hold?

Giveaways of secondary containment for NMR tubes

The Safe-tee awards where members of the department can nominate their peers for

Thank you!
Conclusions (if you remember anything- remember this)

- Developing skills outside the laboratory will help students after graduation.
- JSTs exist both to help bridge gaps in departments but also to provide necessary skill development.
- When it comes to laboratory safety- ask the students (they will tell you what the issues are).

- If you build it- they will come- providing a platform for students to pursue their own interests will.
- Include graduate students on faculty committees- it is helpful for bridging gaps in communication.
- The best way to make change at an institution is to first know how things work. You can’t expect substantial change when you are unaware of who to talk to or how to approach an issue.
Thank you!

Jessica Martin
Expected Graduation: Ph.D. '21

Empowering Academic Researchers to Strengthen Safety Culture