



ACS
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AMERICAN CHEMICAL SOCIETY

2023 ACS PRESIDENTIAL LABORATORY SAFETY TEAMS SUMMIT REPORT

Executive
Summary



The first-ever **ACS Laboratory Safety Teams (LST) Summit**, designated as a Presidential Event by ACS President, Dr. Judy Giordan, was held at ACS headquarters in Washington, DC on October 5–7, 2023. This summit was a direct outcome of the recommendations of the 2022 ACS Presidential Safety Summit and focused on the growing LST movement. This summit was initiated and planned by a team of graduate students who lead LSTs at their home institutions.

The 2023 LST Summit brought together about 40 participants, including graduate students, university professors, representatives from national laboratories and industry, and ACS staff members. Participants also represented the Committee on Chemical Safety (CCS), the Division of Chemical Health and Safety (CHAS), and the Division of Chemical Education (CHED) Chemical Safety Committee. All participants had vested interests in LSTs.

Before the summit, information about LSTs was gathered through both a focus group session and a 39-statement questionnaire. This pre-summit effort sought to better understand the structure of LSTs, current LST initiatives and activities, oversight, responsibilities, reporting, funding, and perceptions among students. This information was used to inform the discussions for Goals 1 and 2 of the 2023 ACS Presidential LST Summit. A more detailed report of the findings of the focus group session and the questionnaire are included in the full report.



The grassroots LST movement has been far-reaching and continues to grow (Image courtesy of Brady Bresnahan).

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GOAL 1: DEFINE WHAT AN LST IS AND THE BENEFITS OF HAVING ONE.

The questionnaire was sent to the 23 known and active LSTs; 19 LSTs responded, yielding a response rate of nearly 83%. The discussion of the results of the questionnaire highlighted some key points about LSTs:

- The opportunity for growth is huge, because there are currently only 23 LSTs.
- Guidance is needed on how to start an LST and how to identify potential champions.
- LSTs are tailored to meet the needs of individual departments and their unique circumstances.
- An LST can change a department's safety culture.
- LSTs provide professional development opportunities, which should be recognized and highlighted on résumés and curricula vitae.

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GOAL 2: IDENTIFY WHAT LSTS NEED TO START AND THRIVE.

A focus group was convened before the summit to better understand some of the key issues facing LSTs. The discussion highlighted that successful LSTs have:

- a strong institutional memory, through documentation and reporting;
- increased visibility by connecting with the ACS Younger Chemists Committee (YCC) and the ACS local section;
- effective and dedicated champions; and
- a demonstrated value-added component, such as the safety certification program offered through Partnership in Academic Laboratory Safety (PALS), an industry–academia initiative.

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GOAL 3: DEFINE THE PARTNERSHIPS LSTS CAN HAVE, AND WHY THEY BENEFIT BOTH PARTNERS.

Guiding Question 1: *In what ways can industry, national/government laboratories, academia, and ACS support the establishment and maintenance of LSTs and student safety leaders involved in LSTs?*

First-hand examples of partnerships by LST leaders, industry, and ACS helped demonstrate the potential benefits, such as communication skills and collaboration. During the discussion, the following recommendations were identified:

- Create resources housed on the ACS website that include the following:
 - Directories organized according to major areas and themes. Redundancy is acceptable.
 - Information about LSTs, including activities and initiatives, with links to their websites or industrial partners.
 - An inventory of existing resources, networking opportunities, and LST collaborations.
 - An LST “starter kit” that includes templates for organizational information, mentorship requests, funding requests, etc.
- Increase the visibility of LSTs beyond the ACS network.
- Plan for and address potential issues related to diversity, equity, inclusion, and respect (DEIR), including respecting cultural differences, academic backgrounds, and interpersonal interactions.

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GOAL 4: ENABLE LSTs TO PREPARE SCIENTISTS FOR INDUSTRIAL SAFETY STANDARDS.

Guiding Question 2: *In terms of preparing students for industrial safety standards, what are new and existing resources that ACS can provide to enable students to meet these standards?*

Guiding Question 3: *How can students best communicate relevant skills and experiences from LST involvement and leadership in a job search?*

Guiding Questions 2 and 3 helped focus the discussions on preparing students for workplace skills, including both technical and leadership skills. Various LST initiatives and various ACS resources can help build these skills. Examples of LST activities include “safety lunch and learns”, workshops, training events, peer-led laboratory safety walk-throughs, industry tours, and networking events. ACS resources include workshops, seminars, and courses related to chemical safety education and training, documentation, organization, leadership, and networking.

The key points from the discussion of Goal 4 were:

- An inventory of existing ACS resources relevant to LSTs is needed.
- Student engagement with resources could be improved through techniques such as gamification, artificial intelligence, and virtual reality.
- Encourage the use of the laboratory notebook to highlight safety practices and resources.

RECOMMENDATIONS AND ACTION ITEMS FROM THE 2023 LST SUMMIT

The primary recommendation from the 2023 ACS Presidential LST Summit participants was that **ACS should become the professional home for LSTs**. Several of the summit participants joined the small working groups that will develop a more detailed vision for the following action items:

- Identify standardized **recognition** mechanisms for LSTs and LST members.
- Provide **professional development** opportunities.
- Compile curated **resources** on the ACS LST website, and identify any missing resources.
- Facilitate the development of meaningful **partnerships** among LSTs, academia, government agencies, ACS local sections, ACS technical divisions, and governance committees.



Laboratory Safety Team (LST) leaders who organized and facilitated the 2023 ACS Presidential Laboratory Safety Teams Summit, held in Washington, DC. From left to right: Monica Nyansa, Caroline Donaghy, Daniel Hu, Brady Bresnahan, Amanda Chung.