Factors for Improving a Laboratory Safety Coordinator (LSC) Program

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RESEARCH SAFETY SPECIALIST

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The many responsibilities of an academic faculty member

- Primary responsibilities broken into research, teaching, and service
- Many work long hours and over weekends or holidays
- Majority of the time is not spent in the laboratory
- Often no formal training or evaluation in safety and lab management
- Responsibility for safety and lab management competes with many other duties
Faculty safety meeting starts a conversation with EHS
Mechanism for delegation of safety responsibilities

As a PI, you have a finite amount of time available to dedicate to individual group members. While you bear the ultimate responsibility for what happens in your lab, delegating some management tasks to competent researchers allows you to increase your span of control.

- Assign a Lab Safety Coordinator (LSC) to assist in managing routine safety tasks. Give them authority to enforce the safety policies and lab rules. (Many larger labs hire a professional lab manager).

- Intra-lab communication can be challenging for large lab groups or groups spread across several buildings. Assign one or more LSCs for each main area or building.

- LSCs should meet regularly with each other and the PI.
Importance of LSC effectiveness in safety culture

- Enable success of LSC by providing a clear role, responsibility, and commensurate authority
- Particularly important for vulnerable populations such as graduate students and postdoctoral associates
- Preferably appoint senior and experienced researchers
- Ideally, overlap between LSCs of at least 6 months
Support and training for LSCs at Stanford

- Online/Zoom LSC trainings
- Department LSC meetings
- New LSC task delegation forms
- New lab member training checklist
- SOP and prior approval guidance
- Safety store and occupational health center
- Incident reporting and follow-up
- Self-inspection checklists
- Resources (fact sheets, risk assessment tools)
- Other guidance (waste, inventory, storage)
- Etc.

But how do we measure if LSC’s are effective?
2020 survey of LSCs resulted in 230 respondents

**What is your primary affiliation with Stanford?**

<table>
<thead>
<tr>
<th>Affiliation</th>
<th>Full-time staff</th>
<th>Graduate student</th>
<th>Post-doctoral scholar</th>
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<tbody>
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<td>Engineering</td>
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<td>Other</td>
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**Are you the sole LSC for your lab, or are other researchers assigned to this role?**

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<tr>
<th>Role</th>
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<th>Humanities &amp; Sciences</th>
<th>Independent Labs</th>
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Survey credit: Katrina Shao, Megan Miller, Susan Vleck, Kathryn Nobrega
Onboarding and training improvements may be needed

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### Faculty not as engaged in the process as predicted

#### Have you and your PI completed the LSC delegation form?

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<th>No</th>
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<td>Other</td>
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#### My PI and I interact regularly to discuss my delegated safety duties.

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<th></th>
<th>Agree</th>
<th>Somewhat agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Disagree</th>
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<td>School of Medicine</td>
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Recognition and reward initiative may be impactful

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7 factors identified that influence LSC effectiveness

- Confidence
- Support
- Resources
- Authority
- Competency
- Bandwidth
- Compensation
What’s next?

• **LSC program design**
  - LSC success is dependent on more than resources provided from EHS
  - Refocus outreach based on weak points in survey: training, PI involvement, recognition

• **Design survey to monitor factors for effectiveness over time**
  - Self-reported perception data
  - Competency data
  - Other quantitative metrics

• **Consider:**
  - Benchmarking with other institutions
  - What responsibilities are appropriate to be delegated from the PI
  - How can LSCs help from the bottom-up
  - Compare staff, lab manager, grad student, and postdoc LSC populations
Acknowledgements

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• Kathryn Nobrega

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• April Anstey
• Linh Phan
• Jack Reidy
• Simone Schubert
• Katrina Shao
• Nancy Young

Strategic Initiatives
• Mary Dougherty
• Sarah Martin Segal
• Megan Miller
Questions?

Thank you for attending!

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