

### Managing Large Laboratories and Shared Laboratory Spaces-**Guidance for Principal Investigators**

This guide provides information and best practices for maintaining core health and safety elements in large laboratories (i.e. >20 members) and/or shared laboratory spaces.

### Factors Affecting Large and Shared Laboratories

**Large Labs** 

and

**Shared Spaces** 

### **Physical Size of Lab**

Large labs and shared spaces may be spread out across several buildings, which can hinder intra-lab communication and inhibit efficient in-person oversight. Conversely, a lab that is too small for the number of researchers may experience issues caused by overcrowding.

"span of control" (the number of people that can be effectively managed by a single individual). Despite the autonomous nature of many researchers, a large lab or a shared space may pose management challenges for a single Principal Investigator.

# **Diversity of Research**

Large labs and shared spaces often engage in a broad range of research encompassing multiple fields of science. Therefore, the lab may contain a wide variety of hazardous materials and specialized equipment, all of which have their own training and safety management burdens.

### **Experience/Turnover of** Researchers

Large labs and shared spaces may include scientists at all stages of their scientific careers, requiring different levels of oversight. Moreover, with large numbers of researchers rotating through the lab, tracking the health and safety elements associated with all these individuals can be difficult.

#### **Number of Researchers**

There is an upper limit to any individual's

#### **Challenges**

Common challenges encountered by large labs and shared spaces can include:

- poor general housekeeping
- accumulation of unneeded research samples/chemicals/supplies
- hazardous materials and waste which are not properly labeled, stored, or disposed of
- lack of individual accountability
- lack of mechanisms for resolving EH&S matters
- Strategies and tools for managing these challenges in large labs and shared spaces, along with all labs, are provided on the next page.

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### **Management Strategies for Principal Investigators**

# Demonstrate a Commitment to Safety

- Include discussions of safety at lab meetings, one-on-one discussions, planning of experiments, etc.
- Walk through your lab on a regular basis and use this as an opportunity to reinforce safety as a high priority.
- •Wear proper personal protective equipment (PPE) while in the lab.
- Enforce rules, updating them when new conditions are introduced

For Large Labs/Shared Spaces

#### **Delegate**

- Assign <u>lab safety</u> <u>coordinators</u> (LSCs) to assist in <u>managing</u> <u>routine tasks</u>.
- Transition outgoing and incoming LSCs over a six month period; EH&S can assist with training new LSCs.
- •Inform all lab members what duties you have delegated to the LSCs.
- Ensure LSCs have the authority and respect needed to enforce lab rules.
- Assign a LSC for each main area in labs spread across multiple buildings.
- Consider hiring one or more staff scientist(s) whose job description has lab safety tasks explicitly included.

# Formalize Onboarding and Departure Processes

- Create a system to ensure all new researchers obtain general EH&S training, as well as <a href="lab-specific training">lab-specific training</a> and orientation.
- Ensure researchers are supervised while learning new procedures until they are ready to work independently.
- Create a close-out system to ensure that researchers leave properly label, store, and/or remove their hazardous materials and samples before leaving the laboratory.

# Establish Housekeeping Guidelines

- Establish criteria for good housekeeping and ensure rules are consistently enforced across the entire lab.
- •Share **photos** of what constitutes good housekeeping.
- Use signage to label experiments in progress and/or equipment use.

#### **Monitor Lab Spaces**

- Perform quarterly laboratory selfinspections.
- Rotate self-inspections through all lab members.
- Focus particularly on lab equipment and spaces utilized by multiple researchers when conducting selfinspections.
- Self-inspection tools are available online via EH&S's website or SU's EH&S management tool, BioRAFT.
- Conduct frequent lab clean ups (e.g., at least monthly). Identify and plan for removal of unneeded supplies, equipment, hazardous waste, etc.
- •Perform additional selfinspections more frequently (e.g. weekly).
- Assign researchers to provide extra monitoring for specific areas of the lab such as shared spaces.

Questions? Contact EH&S's Laboratory Safety Program at (650) 723-0448

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