Lessons from the Research Lab
Creating a Culture of Safety in the Workplace

By Annette Walter

For more than two decades, I have worked in highly regulated, complex research laboratory environments – designing and developing both BioPharma and Academic laboratory workspaces to meet exacting programmatic, regulatory, and safety requirements. Both corporate and academic programs require investments not only in buildings, equipment, and infrastructure, but also in personnel with scientific expertise, leadership skills, and the ability to establish, promote, and maintain a strong and positive Culture of Safety. Anyone entering a research laboratory should have training for the proper use of PPE (personal protective equipment), laboratory and personal hygiene – including hand washing, proper use of chemicals, lab equipment, as well as having an understanding of safety hazards, risk reduction, and emergency preparedness. This knowledge protects the researcher, the research colleagues, and the scientific research experimentation from exposure to hazards.

Today, as office environments are looking for ways to return to some sense of “normal” there are lessons to be learned from laboratory safety standard operating procedures (SOPs) and research process flow. These lessons all ladder up to a Culture of Safety that can help reduce the risk of COVID-19 exposure and transmission in a traditional office environment.

Dress for Success

A research laboratory is designed for safety compliance and with a specific research type or process in mind. The entry to the laboratory typically accommodates a hand washing sink, an area for donning PPE – including but not limited to, lab coats, safety glasses, gloves, and for the foreseeable future – face masks. Prior to exiting the lab, removal of the soiled PPE and hand washing is required. With clean hands, a new face mask should be put on before entering an administrative area. Soiled PPE should never be worn outside the laboratory environment.

Desk seating for the researcher is segregated from the laboratory to provide a place to complete non-laboratory related tasks reducing exposure to noise, chemicals, and other laboratory hazards. This arrangement also provides the researcher with the opportunity to eat food or enjoy a beverage while seated at their desk. Food and beverages are strictly forbidden at the research laboratory bench.

Designating specific areas and required attire in an office environment may not be exactly the same as in a lab environment, but giving it thought forces us to think about our space in terms of how people use it. There are opportunities to be thoughtful about what kinds of activities may happen in different parts of the office and adapt accordingly.

Design for Flow

Research process flow includes intentional placement of the laboratory equipment within the lab environment based on research type. This may include the placement of equipment on lab benches, inside exhausted enclosures, and hoods, or located in a dedicated support room off the main laboratory. Depending on the tasks to be completed for the day, researchers then move from station to station to conduct their experimentation.

Traditional office process flows may not be so different from research process flows. In response to return to office, the office environment must adhere to the Centers for Disease Control and Prevention (CDC) and the Occupational Safety and Health Administration (OSHA) COVID-19 guidelines for the workplace. Besides the requirement for the use of a face mask, hand washing and general physical distancing, the arrangement of dedicated spaces for different tasks within the office environment must also be arranged to align with physical distancing requirements. Desk seating, hoteling desks, meeting rooms, dining areas, supplemental seated environments, cueing locations, along with all other task-specific locations like copy rooms must comply.

Coordinated Effort

Research laboratories will also need to comply with the CDC and OSHA guidelines for return to office and laboratory. Physical distancing and “task spacing” to accommodate the entire lab team may not be possible. Laboratory teams will be required to establish staggered laboratory schedules shared with their research colleagues to get their laboratory work done.

The same approach can be accomplished in the office environment. Many companies are making plans to accommodate their employees with a phased approach to return to office with possible staggered schedules.

Solutions Will Be Found

Even in times of uncertainty, finding workable solutions and designing space to accommodate physical distancing with the use of PPE is possible. As we move forward, there will be new ways to work together, and suddenly wearing a mask or staggering a schedule or two will not seem like a sacrifice.

The scientific community has been doing this for years – complying with regulatory and safety guidelines to protect themselves and their work. And while the research world will have its own set of challenges when returning to the laboratory, the lessons from those spaces and the associated safety protocols can always be relearned and shared with others. Promoting a Culture of Safety along with

working to create new regulatory compliant office environments and process flows will someday allow us all to return to work successfully.

Links for Reference

OSHA Guidance on Preparing Workplaces for COVID-19
CDC Coronavirus/2019
NIEHS - Essential and Returning Worker Training

About Annette

Annette Walter is an Associate Director with PPM, based out of its San Francisco Bay Area office, with specialized skills in laboratory space planning, equipment planning, and laboratory move management.

In addition, Annette is also a well-respected team leader, mentor, and is passionate about providing guidance and support to emerging leaders within the project management field. She can be reached at annette.walter@pacificpmg.com.