JHU Research Laboratory Return to Work Checklist Required Lab Attire

<u>Cloth masks</u> must always be worn while in the lab and on campus. In addition to a mask, all standard lab attire and PPE including long pants, enclosed shoes, lab coat, and safety glasses must be worn in the lab. If a task or work area required a specific type of PPE prior to the pandemic, those requirements should not be altered or substituted without consultation with Health, Safety & Environment. All existing JHU Health, Safety & Environment Laboratory Safety Policies are still in effect.

Perform Pre-Occupancy Lab Check

Once your PI has received approval from the Dean's Office to resume research and prior to rampup of research operations, conduct a pre-check of the laboratory condition and supplies. The following should be assessed as part of this check before beginning work:

Hazard analysis: Enter the lab with a sense of caution.

- 1. Look through entry-door windows to see if any materials may have been damaged or if water or liquids are present on the floor or surfaces. Listen for any local alarms indicating a safety issue.
- 2. Before you walk in, do a mental hazard assessment of the hidden or invisible hazards of your lab, such as compressed gases, vapor-producing chemicals, etc. that could have escaped containment. Think through how you would detect any problems and how to react before you enter the room.
- 3. If you discover a hazardous condition that poses a threat to you or to others, such as a hazardous material release, LEAVE THE LAB. Close doors behind you and alert others as you walk to a safe place to wait for HSE to respond. Contact your Campus Safety and Security who will alert HSE and Facilities.

Survey for unsafe conditions

- 1. Walk through <u>all</u> of your areas and complete a visual inspection of all hazardous materials, samples, products, etc looking for any evidence of problems: broken chemical containers, old waste, leaks, failed equipment, spills, etc.
- 2. Mitigate any leaks, spills, or releases if you are capable of handling them. If not, contact HSE or Facilities as applicable.
- 3. Assess chemicals that may have become unstable during the shutdown and manage any expired, outdated, peroxide-forming, self-reactive, or other reagents with a limited lifespan appropriately. Do NOT touch chemicals on this list (peroxide formers). Look for chemical containers that are bulging or have imploded. Submit a chemical waste pick up for chemicals in these categories.
- 4. If any damage has occurred as a result of the closure, contact your department administration within 24 hours of discovering the loss.

Check for safe operating conditions

- 1. Confirm fume hoods, biosafety cabinets, and other key safety equipment are operating normally, have current certification (if applicable), and alarms are not activated.
- 2. Confirm you are using correct start-up procedures for critical pieces of equipment. If you are unsure, check manufacturers' web site.

JHU Research Laboratory Return to Work Checklist

- 3. Confirm adequate supply of bio boxes and chemical waste containers are available for near-term research needs. This also includes bleach and ethanol supplies for inactivating biological waste prior to disposal.
- 4. Confirm adequate personal protective equipment is available for near-term research needs.
- Confirm there is an adequate supply of soap and paper towels for hand washing and that disinfectant will be available for cleaning shared equipment and work areas.
- 6. Ensure safety showers are not obstructed, and eyewashes are functioning properly. Flush all eyewashes until the water runs clear and resume weekly eyewash flushing / log.
- Assess what support services and deliveries (such as compressed gases, reagents, dry ice) you may require when
 your research is restarted and determine whether those services are operational and will be available when you
 need them.
- 8. Anticipate delays in response and repairs and the possibility of limited personal protective equipment and other consumable supplies. It typically taking two weeks or longer for new or replacement supplies to arrive.
- Investigate how other facilities such as cores, sample/specimen providers, and collaborators will be managing their services and maintaining physical distancing requirements so you can prepare for any access requirements or delays.
- 10. Run hot and cold water in sinks for 5-15 minutes or until water is clear. Pour water down dry bench sink and cup sink traps/floor drains to mitigate sewer gas smells that are often confused with natural gas leaks.
- 11. Check expiration dates and integrity of chemical containers. Contact HSE to request pick-up of expired chemicals or damaged containers.
- 12. Cleanup/put away chemicals, supplies equipment, glassware, and other items left out during the shutdown
- 13. Secure, correctly label, and/or request a pickup for Hazardous/Chemical Wastes. Manage any biological waste appropriately.
- 14. Report any missing materials, to JHU Campus Safety and Security and other institutional officials, as necessary.

Determine Lab Member Shifts/Rotations

Because physical distancing (6 feet) will need to be maintained in the lab, it may not be possible for all lab members to be present in the lab at the same time. This may require coordination with other lab groups to be effective. Consider splitting the lab group into teams that will work during different shifts or on alternating days. Experiments should be planned prior to coming into the lab. If lab members do not have work that requires them to be in the lab they should not come to the lab. Communicate this to your lab group. Take the following into account when dividing your group into shifts:

- 1. What areas of the lab does each researcher require access to? Can you maintain a 6 foot distance from others who are need access to the same areas? Can lab members be scheduled so that immediately adjacent workstations are not in use at the same time? If not, can workers be temporarily assigned to other benches or hoods to create enough separation?
- 2. Determine which lab members will require close supervision and advisement while they are doing their lab work. Are there any tasks these individuals should be prohibited from performing while physical distancing measures are in effect?
- 3. Ensure that lab members who are essential for the operation of specialized equipment or lab techniques make documentation available to other lab members in case they are not present in the lab or otherwise not available.
- 4. Although the number of people in the lab should be reduced, researchers must not work alone in the lab.

JHU Research Laboratory Return to Work Checklist

- 5. Ensure that everyone has the necessary contact information for the other group members who will not be present during their shift in case there are questions or issues with materials or equipment in their workspace.
- 6. Take your assigned work schedule into account when planning your research activities. You may not be at liberty to return to the lab, at will, to stop processes or monitor experiments. Avoid running unattended processes if possible, and post information about your experiment to communicate hazards to others who will be present in the lab when you are not present.
- 7. Due to the prevalence of the asymptomatic spread of COVID-19, social distancing is extremely important and will be enforced in the labs!

Consider Equipment Startup Hazards

Anticipate the hazards associated with the startup of equipment such as distillation systems, chemical vapor deposition systems, flammable/toxic gas distribution cabinets, etc.

- 1. Consider how you can ensure safe restart of potentially hazardous systems.
- 2. Review operating manuals and SOPs for safe startup procedures.
- 3. Review equipment state and safely release or mitigate any stored energy sources.
- 4. Review startup procedures for compressed gas cylinders, gas generators, gas distribution systems, or pressurized systems such as solvent drying apparatus.
- 5. Plan to restart equipment when the process can be monitored for enough time to confirm safe continuous operation.
- 6. Before restarting a process, consider what will be necessary to safely shut it down again if necessary.

Shared Facilities and Core Services

Shared facilities and equipment include fume hoods and biosafety cabinets, procedure rooms, instruments, and instrument/resource facilities will require coordination with other lab groups. To maintain physical distancing requirements in open-access facilities and when using shared equipment:

- 1. Post an hourly schedule on the procedure rooms and shared equipment or utilize a shared calendar or other multiuser scheduling system.
- 2. Disinfect equipment before and after each use. This includes all touchable surfaces. Place a spray bottle with disinfectant and wipes near the equipment. Spray disinfectant directly into wipe to minimize aerosolization.
- 3. Make sure that contact information is available for equipment stewards or facility managers who may not be onsite during all shifts.
- 4. Take into account that your access to certain facilities including the vivarium may be affected by occupancy limitations. Check with the facility about scheduling and restrictions.
- 5. Do not assume that Cores and services offered will be the same as before the stand down. Check with Core prior to using Core equipment or requesting services.

JHU Research Laboratory Return to Work Checklist Non-Lab Areas of the Building

- 1. Gloves, used in the laboratory, shall not be worn outside the lab, in common areas, or in shared facilities except where normal lab protocol requires gloves to be worn.
- 2. Post the maximum allowable occupancy for shared offices, lounges, break rooms, rest rooms and conference rooms that still allows for adequate physical distancing.
- 3. Arrange seating in break areas so that physical distancing can be maintained. Face all seats in the same direction so that seats do not face each other.

Cleaning and Disinfection

- 1. See Research Lab Return to Work Disinfecting Guidance for cleaning and disinfecting instructions.
- 2. Reduce clutter so that desk areas, lab benches and other work areas can be properly disinfected at the end of your shift.
- 3. Exercise caution as even 70% ethanol is flammable and can be ignited. Best practice is to saturate a wipe and apply to the surface rather than directly spraying if ignition sources are nearby.
- 4. JHU custodial operations will clean and disinfect high touch surfaces outside the lab.

Keep Flexibility in Mind

Stay conscious of the fact that circumstances may change rapidly, and you may need to suspend operations again on short notice. Be aware of what equipment may need to be taken offline and what materials would need to be secured in order to ramp down your work.

- 1. Prepare for supply chain disruptions and limited availability of materials.
- 2. Recognize that order placement may be slower as the volume of requests increases.
- 3. Plan for some reagents having limited availability.
- 4. Plan for some consumables having limited availability.

Emergency and Maintenance Contacts

Emergency procedures are unchanged.

Facilities & Real Estate Service Requests

Homewood (410) 516-8063

Homewood Online Service Request: https://maximo.jhu.edu/ezrequest/login/homewood

SoM (410) 955-3323

BSPH (410) 955-3771 or submit a service request

JHU Research Laboratory Return to Work Checklist

Homewood Campus Safety and Security

410-516-4600

JHMI Corporate Security

410-955-5585

Health, Safety & Environment

Homewood: 410-516-8798

JHMI: 410-955-5918 HSEinfo@jhmi.edu

As noted in the <u>Return to Campus Guide</u>, anyone who encounters non-compliance with safety guidelines may notify the university through the Office of Health, Safety and Environment (HSE) at <u>HSEinfo@jhmi.edu</u> or the JHU Hotline at 844-SPEAK2US (844-773-2528).