Laboratory Guidelines and Considerations for COVID-19 Prevention

Laboratories and other research spaces that have been approved by OVPR to reinitiate research projects should use the following general guidelines as staff return to campus. Researchers should work with their administration for any department- or college-specific procedures.

Guidelines for laboratory personnel safety

1. **Do NOT return to work if you are experiencing any COVID-19 symptoms.** Your own department or college may have specific procedures for daily attestations of wellness. In particular, no one should come to work if they are beginning to experience any of the following symptoms:
   - Fever (temperature \(\geq 37.8\) deg C (100.0 deg F))
   - Cough
   - Shortness of breath
   - Difficulty breathing
   - Muscle pain
   - Headache
   - Sore throat
   - Loss of taste or smell
   - Chills

2. All personnel should follow the current rules from the Iowa Department of Public Health. As of 5/4/20, individuals experiencing COVID-19 symptoms must stay home, contact their healthcare provider, and self-isolate for a minimum of 10 days and at least 72 hours of being free of fever without the aid of any fever-reducing medication, provided that other symptoms have also improved. Individuals who live with someone who has COVID-19 symptoms or tested positive for COVID-19 should self-isolate at home for 14 days [https://idph.iowa.gov/Portals/1/userfiles/7/3_18_20%20Self%20Isolation%20Guidance%20for%20Iowans.pdf](https://idph.iowa.gov/Portals/1/userfiles/7/3_18_20%20Self%20Isolation%20Guidance%20for%20Iowans.pdf).

3. **If you come to work and start showing any possible symptoms of illness, you must leave the lab as soon as possible** and inform your PI and/or local HR leader.

4. Develop a personal transportation plan that minimizes proximity to other people.

Guidelines for operating a safe laboratory or research facility

1. Create a lab schedule and adhere to it. This schedule should minimize the number of people in each laboratory room at any one time. This may require staggering work shifts. A Sharepoint site or other secure online tool can be used to identify who is present in the lab space at any given time and be used as a mechanism for controlling the number of people in the lab at the same time. Open laboratory areas will require a communication system that spans all laboratories within the shared area.
   - Distribute a list of duties to be performed by critical personnel with location and designated time of day.
   - Stagger break times to minimize contact between people in rooms used for eating or drinking.
     - Be sure to disinfect surfaces such as tables and chairs before and after use.
     - Wash your hands after using a break room.

2. Create safe spaces to maintain at least 6 feet of distance between researchers at all times.
   - Post a lab map inside the lab entryway with maximum room/bay occupancy to maintain social distancing.
   - Small, narrow rooms on the order of 100-150 square feet (sf) can likely only accommodate
• One person at a time.
• Square or rectangle laboratories larger than 200 sf can possibly accommodate more, but keep the number to a minimum. If you cannot maintain at least 6 feet of social distance in any direction, revise the schedule and/or reconfigure the room.
• To the extent possible, move equipment to create at least 6 feet between users.
• Use tape to mark out 6-foot spaces for high traffic areas or bottlenecks. If possible, set up one-way traffic zones to minimize interactions.
• Avoid having individual workstations in areas of high traffic or frequently used shared equipment.

3. Create a plan for safe practices in the lab.
• Do not begin any experimentation without an adequate stock of personal protective equipment (PPE). There are significant disruptions in the PPE supply chain during the COVID-19 outbreak.
• In order to help slow the spread of COVID-19, all personnel should wear face coverings such as face shields or face masks whenever possible when working in the laboratory or in a common space. Specific guidance on the protective equipment may be provided by your College/Department.
  o Refer to the following when wearing a face shield: To doff - remove gloves, wash hands, remove face shield-do not touch front: grab the face shield from the top or the bands on the side and lift it off the head, place on horizontal surface, wash hands. To decontaminate a re-usable face shield - don gloves, carefully wipe the inside, followed by the outside of the face shield using an approved cleaner/disinfectant, inspect for damage; if damaged dispose, fully air dry, remove gloves and wash hands, place in clean location, wash hands.
  o Employees are permitted to wear cloth face masks throughout the workday in accordance with CDC guidelines. N95 respirators should be reserved for healthcare providers; there are shortages of these masks, and it is critically important that healthcare workers have the equipment they need.
    o To doff: remove gloves, wash hands, remove face mask-do not touch front. If disposable, properly dispose. If reusable, launder regularly; transport in a bag if necessary. Wash hands after removal.
• Don the appropriate PPE when entering a laboratory, including a lab coat and gloves. PPE hazard assessment tools/risk assessments which outlined required PPE prior to the outbreak must still be followed. A cloth mask is not adequate PPE for laboratory safety and cannot be substituted for an isolation mask; a face shield does not replace safety glasses/goggles.
• Do not wear potentially contaminated PPE outside of the lab. Always wash your hands with soap and water after removing gloves and before leaving the lab. In addition, wash hands after touching shared accessory devices like phones.
• To the extent possible, minimize shared items (pens, notebooks, frequently used reagent bottles, computers, desks, etc.).
• Create an enhanced cleaning schedule; see the enhanced cleaning section at the end of this document.

4. Create a plan for shared equipment. All shared equipment must be disinfected before and after each use.
• Wear disposable gloves when cleaning and disinfecting.
• To the extent possible, wear eye protection when surface contact is a possibility, e.g. microscopy work.
• Special care should be taken to disinfect equipment that makes direct physical contact with skin, including eyepieces for microscopes, touch pads, etc. To the extent possible, don
gloves prior to touching equipment surfaces that cannot be disinfected.

- Wash your hands immediately after gloves are removed and after any surface contact.

5. Create a plan for interactions with others outside the lab.
- Contact with other labs should be made via phone or electronic means.
- Transfer of non-hazardous items should be arranged by leaving them in the hallway or other designated area rather than handing them over in person. Transfer of any hazardous item should be done in person while maintaining social distancing between individuals.
- Use of shared facilities and other labs’ equipment should be pre-arranged in order to minimize contact. Establish and communicate lab sign-in/sign-out procedures.
- Use precautions when entering a restroom, shared core facility, or other common areas. Wash your hands upon entering and leaving such areas.

6. Create a plan in the event of a possible or confirmed case of COVID-19 among lab personnel.
- Resources are available for self-reporting on the UI Campus Coronavirus Updates page under Faculty or Staff.
- Your PI or senior HR leader will follow the COVID-19 self-reporting protocol to request a cleaning and ensure appropriate notification to fellow employees.

ENHANCED CLEANING PROCEDURES:
The efficacy of disinfectants is evaluated on pre-cleaned surfaces. Thus, surfaces that are visibly dirty should be cleaned with soap and water prior to disinfection. Disinfection of work and common areas can be achieved with an EPA approved disinfectant. EPA List N covers disinfectants approved for coronavirus. Follow disinfectant label instructions for adequate contact time to disinfect. If possible, wet towels or wipes with disinfectant rather than spraying; spraying may aerosolize anything that is on surfaces. Do not mix different types of disinfectants and/or cleaning solutions; some may react with each other and may produce dangerous fumes.

General Guidance
1. Increase the frequency of cleaning and disinfecting, focusing on high-touch surfaces.
2. Practice good hand hygiene after cleaning (and always):
   - Wash hands often with soap and warm water for at least 20 seconds.
   - Hand sanitizer (at least 60% alcohol) should only be used if soap and water are not available.

Safety guidelines during cleaning and disinfection:
1. Cleaning chemicals should only be used by staff trained on the hazards of those cleaning chemicals.
2. Wear disposable gloves when cleaning and disinfecting. Wash hands immediately after gloves are removed.
3. Wear eye protection when there is a potential for splash or splatter to the face.
4. Lab coats are recommended to protect personal clothing.
5. Store chemicals in labeled, closed containers. Store them in a manner that prevents tipping or spilling.

Cleaning and disinfection of surfaces:
Examples of Work Areas (labs, shared core areas, etc.):
- Benchtops, fume hood and biosafety cabinet sashes and work surfaces, centrifuge lids and bucket caps, waste container lids and handles, etc.
- Handheld devices (pipettors, pipetman, etc.) and other commonly used items.
- Shared PPE (laser goggles, safety glasses, etc.).
• Frequently touched surfaces, such as light switches, door handles, knobs and push plates, refrigerator and freezer handles, equipment touch screens, elevator buttons, etc.
• Clean electronics according to manufacturer instructions.

Examples of Common areas (lunchrooms, offices, etc.):
• Refrigerator/freezer handles and shelves.
• Microwave keypad and handle.
• Sink faucets and surrounding surfaces.
• Tables and chairs
• Door handles, knobs, and push plates.
• Clean electronics according to manufacturer instructions.
Information on Facilities Management’s COVID-19 operational response and custodial services can be found here: https://www.facilities.uiowa.edu/coronavirus