Laboratory Operation Under Phase 4 Reopening

1. Purpose

This SOP provides guidance to faculty, staff, graduate students and postdocs during the gradual Phase 4 ramp up in research activities in the CoC. This document will be re-evaluated as needed to meet the directives and guidelines from campus, the city, and the county.

The CoC will be guided by the following principles as we ramp up in laboratory work in the CoC.

A. Our top priority is public health: your health, as well as the health of our CoC community and the community at large (city, county, etc.). The guidelines that are provided will endeavor to prevent an increase in infections as a result of an increased presence in our buildings. Any guidelines will align with current state and local Public Health orders and recommendations.

B. The CoC is committed to transparency in how decisions are made.

C. The CoC will make decisions that align with our mission to maintain excellence and our preeminent position.

D. The return to laboratory activity will be phased and is likely to take months. This also means that the way in which we conduct laboratory work will change to reduce physical interactions until the pandemic is under control.

E. We aspire to provide guidelines that maintain equity. We are all responsible for ensuring that the guidelines are followed.

F. The most recent Phase 4 reopening guidelines can be found at Phase 4 Research Recovery Guidelines for On-Campus Research Activities.

If you have questions concerning the applicability of any recommendation or requirement listed in this procedure, contact the Principal Investigator/Laboratory Supervisor or the campus resources at https://ehs.berkeley.edu/covid-19.

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2. COVID-19 Background (CDC)

COVID-19 is caused by a coronavirus called SARS-CoV-2. Coronaviruses are a large family of viruses that are common in people and many different species of animals, including camels, cattle, cats, and bats. Rarely, animal coronaviruses can infect people and then spread between people. This occurred with MERS-CoV and SARS-CoV, and now with the virus that causes COVID-19. The SARS-CoV-2 virus is a betacoronavirus, like MERS-CoV and SARS-CoV. All three of these viruses have their origins in bats. The sequences from U.S. patients are similar to the one that China initially posted, suggesting a likely single, recent emergence of this virus from an animal reservoir. However, the exact source of this virus is unknown.

The virus that causes COVID-19 is thought to spread mainly from person to person, mainly through respiratory droplets produced when an infected person coughs or sneezes. These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs. Spread is more likely when people are in close contact with one another (within about 6 feet).

COVID-19 seems to be spreading easily and sustainably in the community (“community spread”) in many affected geographic areas. Community spread means people have been infected with the virus in an area, including some who are not sure how or where they became infected.

People are thought to be most contagious when they are symptomatic (the sickest). That is why CDC recommends that these patients be isolated either in the hospital or at home (depending on how sick they are) until they are better and no longer pose a risk of infecting others. More recently the virus has also been detected in asymptomatic persons.

How long someone is actively sick can vary so the decision on when to release someone from isolation is made using a test-based or non-test-based strategy (i.e. time since illness started and time since recovery) in consultation with state and local public health officials. The decision involves considering the specifics of each situation, including disease severity, illness signs and symptoms, and the results of laboratory testing for that patient.

3. Potential Symptoms

People with COVID-19 have had a wide range of symptoms reported – ranging from mild symptoms to severe illness. Symptoms may appear 2-14 days after exposure to the virus. People with these symptoms may have COVID-19:

- Fever or chills
- Cough
- Shortness of breath or difficulty breathing
- Fatigue
- Muscle or body aches
- Headache
- New loss of taste or smell
- Sore throat
- Congestion or runny nose
- Nausea or vomiting
- Diarrhea

This list does not include all possible symptoms. CDC will continue to update this list as we learn more about COVID-19. Read more about COVID-19 Symptoms.

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4. Risk Management Strategies

The following is a set of mandatory guidelines required for a safe operation under Phase 4:

Physical Distancing:

- In enclosed spaces or rooms are limited to an occupancy of 1 person per 125 square feet - as long as 6 ft distancing can be maintained.
- All personnel must maintain 6-foot distance except in passing.
- Small rooms/offices should maintain 125 sq ft per person
- Comply with capacity signs in elevators and restrooms
- Seek alternate routes when possible to maintain physical distancing. Please adhere to the recommended directions for hallways.
- In some cases, training of new laboratory members is required where two people must work together. These interactions may proceed but should be minimized and 6 ft physical distancing must be employed.
- If working alone in a laboratory, please establish cross checks or other communication measures with those in proximity (in your laboratory or neighboring laboratories). This may be accomplished with Slack, phone, text, etc.
- Labs should clearly post maximum occupancy levels on each room door.

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<thead>
<tr>
<th>Building</th>
<th>Room</th>
<th>square feet</th>
<th>max occupancy</th>
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<td>Tan Hall</td>
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<td>1</td>
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<tr>
<td>Hildebrand Hall</td>
<td>D61</td>
<td>253</td>
<td>2</td>
</tr>
<tr>
<td>Hildebrand Hall</td>
<td>D32</td>
<td>214</td>
<td>1</td>
</tr>
</tbody>
</table>

- Check a room’s occupancy levels before entering. If occupancy isn’t visible, knock before entering.
- If you need to talk to colleagues in another lab or analytical facility, etc., call or set up a Zoom chat. In-person meetings should only occur when there is no other choice.

Sanitation Practices:

- All laboratories should prepare spray bottles containing 70% isopropanol or ethanol or 1:10 dilute bleach to disinfect bench surfaces, doorknobs, and shared equipment frequently.
- Lab surfaces and high touch areas within your lab should be sanitized using ≥70% EtOH or IPA solution immediately before and after use.
- Thorough surface cleaning should be performed at the beginning and end of a shift.

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• Shared equipment should be sanitized before and after use.
• Hands should be washed immediately upon arrival to your lab and immediately before leaving. The CDC recommends at least 20 seconds of vigorous scrubbing.
• Wash and sanitize your hands hourly while on campus and always after talking with and/or handling material that was in contact with another individual.
• Wash hands with soap and water regularly, especially after removing gloves
• Wash hands before entering and before leaving any lab.
• Wash hands before and after putting on or removing any face covering.
• Wash hands before and after handling any shared devices (like lab phones).

Shared Spaces:
• Treat all restrooms as single-occupancy. Call out when entering a restroom to assess occupancy. If someone else is in the restroom, wait outside the restroom for them to exit before you enter. Use a paper towel to touch door handles and faucets, and wash your hands upon entering and leaving.
• Avoid using the elevator. If possible, use the stairs. If you must use the elevator, limit elevator occupancy to no more than one per elevator car.

Eating and Drinking:
• Do not congregate in rooms to eat, nor should you be eating/drinking in a lab or at a research workstation.
• To minimize contact with others, you can bring your own food from home and eat in your own private office, if you have one. If not, find a location outdoors or indoors, and be sure to maintain distance from others.
• Sharing food or drinks in communal areas should be avoided
• Refrain from using the microwave or the refrigerator in Tan Hall 683A until further notice.

5. Personal Protective Equipment
At a minimum, the following PPE must be worn at all times:

Face Covering
A. Face masks/coverings currently must be worn by all employees working on or off campus, whether indoors or outdoors, when in the presence of others and in public settings (e.g., common workspaces, meeting rooms, classrooms, break rooms, etc.). The appropriate use of face masks or coverings is critical in reducing risks to others near you. You could spread COVID-19 to others even if you do not feel sick.

B. If you are required to come on-site to work, cloth face coverings or disposable/reusable masks will be provided by the University if needed. Two cloth face coverings are available for all employees at the campus Hazardous Materials Facility from 9-3 on Mondays, Wednesdays, and Fridays and at other locations. You must show your Cal ID to pick up your cloth face coverings. For more information about PPE, how to use it and the other locations to pick up cloth face coverings, go to https://ehs.berkeley.edu/ppe.

Eye Protection
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A. ANSI Z87.1-compliant safety glasses with side shields, or chemical splash goggles. Ordinary prescription glasses will NOT provide adequate protection unless they also meet ANSI standard and have compliant side shields.

B. If the potential for explosion/splashing exists, and adequate coverage is not provided by the hood sash, a face shield must be worn.

Skin Protection

A. Wear non-synthetic clothing under lab coat.

B. Lab coats are required when handling hazardous chemicals in the lab. Select the type of lab coat according to the hazards at the specific workplace.

C. Gloves are required when handling hazardous chemicals.
   - Refer to specific chemical SDS for information on glove selection.
   - For additional information on glove selection, go to: http://ehs.berkeley.edu/hs/63-laboratory-safety/94-glove-selection-and-usage.html

D. Long pants, closed-toe/closed-heel shoes, covered legs, and ankles.

6. First Aid Procedures and Medical Emergencies

All employees should monitor symptom onset daily to lessen the community spread of COVID-19. If you have questions about your exposure, have a recorded temperature of greater than 100.4 degrees, or have any of the listed symptoms, you should contact your medical provider for an assessment and COVID-19 testing.

If you develop mild symptoms while on campus, call the UC Berkeley Occupational Health COVID hotline at 510-332-7192 from 10am-4pm for assessment and instructions. Otherwise, please call your own primary care provider for advice or go directly to the nearest hospital emergency room. You can also call Occupational Health as above for testing if advised by your primary care clinician.

Notify Occupational Health (510-332-7192) in the event of a positive test result.

You should self-isolate and maintain at least six feet of distance from others until cleared by your medical provider to return to work. Any employees that return to work following an illness should promptly report any recurrence of symptoms.

In addition to getting clearance from your medical provider, employees who are ill with fever or acute respiratory symptoms should not return to work until both of the following occur:
   - At least three full days have passed with no fever (without the use of fever-reducing medications) and no acute respiratory illness symptoms; and
   - At least 10 days have passed since the symptoms first appeared.

If an employee is confirmed to have COVID-19 infection, employees should be informed of their possible exposure to COVID-19 in the workplace while still maintaining confidentiality as required by the Americans with Disabilities Act (ADA).
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Keep Yourself **HEALTHY**
During the COVID-19 Pandemic

**WASH**
Wash hands frequently with soap and water for at least 20 seconds.

**DON’T TOUCH**
Avoid touching your eyes, nose or mouth.

**CLEAN**
Clean and disinfect surfaces that may have been contaminated. Use your elbow, not your hands.

**COVER**
Cover your coughs/sneezes with a tissue and dispose. Avoid contact with sick people. Stay home if you are sick.

**STAY IN PLACE**
Except Essential Personnel Stay Home. Public Gatherings are prohibited per City of Berkeley Health Order.

**MAINTAIN YOUR SPACE**
Maintain Social Distance of 6 feet when in public.

**COVER YOUR FACE**
Follow City of Berkeley Health Order. Cover mouth and nose when around others or in public.

**SELF MONITOR**
Non-Health care essential personnel should self monitor daily. Take your temperature & log any symptoms twice a day in the AM & PM.

**IF CHANGE OCCURS**
If you have a fever of 100.4 or greater and/or develop symptoms, stay home & report to your supervisor.

For updates from UC Berkeley, please visit:
https://news.berkeley.edu/coronavirus/

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# Laboratory Operation Under Phase 4 Reopening
## Changes to General SOP

### Berkeley EH&S

## 7. Protocol/Procedure – In Person Laboratory Research

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Training Requirements/Engineering Controls</th>
<th>PPE (eye, face, gloves, clothing)</th>
<th>Procedure Steps and Special Precautions for this Procedure</th>
</tr>
</thead>
</table>
| 1. To be performed prior to accessing the campus. | All researches have to certify completion of training “EHS 207 UC Berkeley Guidelines on Protecting Workers from COVID-19” All researches have to read the [Phase 4 Research Recovery Guidelines for On-Campus Research Activities](#), and read and agreed to this SOP. | **Face Protection:** Face masks/coverings currently must be worn by all employees traveling to and from campus throughout the city of Berkeley. | **Health Self Check:** Prior to traveling to the lab perform a health check focusing on the following common symptoms:  
- Fever or chills  
- Cough (not due to a chronic or known condition)  
- Shortness of breath or difficulty breathing  
- Muscle pain (not due to exercise)  
- Headache (not due to previously diagnosed migraines)  
- Sore throat (not due to a chronic or known condition)  
- New loss of taste and smell  
- Diarrhea or stomach cramps  
- Sneezing or runny nose (not due to previously diagnosed allergies)  
If you find yourself suffering from any of these symptoms stay at home and isolate yourself. Contact and follow the instructions of your health care provider. |

**Note:** The maximum number of researchers per shift cannot exceed 16. Consult occupancy floorplan for details.  
**Note:** The maximum number of researchers per room (Tan Hall 674, 675, 676, 679, 684, and Hildebrand Hall D61) cannot exceed 4.  
**Note:** The maximum number of researchers per room (Hildebrand Hall D61) cannot exceed 2.  
**Social Distancing:** Avoid public transportation and adhere to > 6 ft social distancing guidelines as you travel to and from campus. |

### Notes
Any deviation from this SOP requires approval from PI.

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<td>2. To be performed prior to accessing the lab and starting work.</td>
<td>Check in with the magnetic name tag on the door. Follow the guidelines for <strong>hourly checkups</strong> on coworkers in neighboring labs.</td>
<td><strong>Eye Protection</strong>: Wear fitted safety goggles or safety glasses with side shields. Face shields are to be used when there is no protection from the hood sash. <strong>Face Protection</strong>: Face masks/coverings currently must be worn by all employees working on or off campus, whether indoors or outdoors, when in the presence of others and in public settings. <strong>Hand Protection</strong>: Confirm compatibility of glove material with chemical being used. Gloves must be inspected prior to use. Wash and dry hands after use. <strong>Clothing</strong>: Wear Nomex IIIA (NFPA 2112) lab coat; wear non-synthetic clothing under lab coat; full length pants or equivalent; and close-toed and close-heeled shoes.</td>
<td><strong>Sanitation</strong>: Prior to performing any work use the provided sanitation tools to disinfect door handles, light switches, rotavap and pump control panels, handles on refrigerators, drawers, ovens, and solvent cabinets. When performing work use only materials and equipment in your own workstation. Avoid sharing squirt bottles, containers, hotplates ... <strong>Hygiene</strong>: Wash your hands frequently with soap and water for at least 20 seconds • Hands should be washed immediately upon arrival to your lab and immediately before leaving. • Wash and sanitize your hands hourly while on campus and always after talking with and/or handling material that was in contact with another individual. • Wash hands with soap and water regularly, especially after removing gloves. • Wash hands before entering and before leaving any lab. • Wash hands before and after putting on or removing any face covering. • Wash hands before and after handling any shared devices (like lab phones). <strong>Shared spaces</strong>: Treat all restrooms as single-occupancy. Call out when entering a restroom to assess occupancy. If someone else is in the restroom, wait outside the restroom for them to exit before you enter. Use a paper towel to touch door handles and faucets, and wash...</td>
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your hands upon entering and leaving. Avoid using the elevator. If possible, use the stairs. If you must use the elevator, limit elevator occupancy to no more than one per elevator car.

**Safety checkups:** Group members are required to perform *hourly safety checks* on lab members occupying the rooms Tan Hall 674, 675, 676, 679, 684, and Hildebrand Hall D61 throughout their shift. This can be performed by visual check through the door windows, through email, text message, phone or Slack channels.

<table>
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## Changes to General SOP

**Procedure** | **Training Requirements/Engineering Controls** | **PPE (eye, face, gloves, clothing)** | **Procedure Steps and Special Precautions for this Procedure**
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3. To be performed prior to leaving the lab. | Check out with the magnetic name tag on the door. Notify all lab members that you will be leaving. | **Face Protection:** Face masks/coverings currently must be worn by all employees traveling to and from campus throughout the city of Berkeley.  
**Social Distancing:** Avoid public transportation and adhere to > 6 ft social distancing guidelines as you travel to and from campus. | **Housekeeping:** Make sure you leave all reactions, chemicals, equipment and instruments in a safe mode. Check gas lines, electrical wires, water lines and pumps for safe and normal operation. Clear your bench space and fume hood and wipe it down with a disinfectant.  
**Sanitation:** Prior to vacating the lab at the end of your shift use the provided sanitation tools to disinfect door handles, light switches, rotavap and pump control panels, handles on refrigerators, drawers, ovens, and solvent cabinets.  
**Hygiene:** Wash your hands frequently with soap and water for at least 20 seconds  
- Hands should be washed immediately before leaving the lab.  
- Wash hands with soap and water regularly, especially after removing gloves.  
- Wash hands before entering and before leaving any lab.  
- Wash hands before and after putting on or removing any face covering.  
- Wash hands before and after handling any shared devices (like lab phones).  
**Safety checkups:** Notify all lab members occupying the rooms Tan Hall 674, 675, 676, 679, 684, and Hildebrand Hall D61 that you will be leaving. This can be performed through email, text message, phone or Slack channels.

**Notes** | **Any deviation from this SOP requires approval from PI.**

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8. Documentation of Training (signature of all users is required)

- Prior to conducting work in the laboratory, designated personnel must provide training to his/her laboratory personnel specific to the hazards involved in working with this substance, work area decontamination, and emergency procedures.

- The Principal Investigator must provide his/her laboratory personnel with a copy of this SOP and copies of the UC Berkeley COVID-19 Health and Safety Guide for Resuming In-Person Operations, the Guidelines for Resuming Research Operations in the College of Chemistry, and the guidelines for increasing Laboratory Research activities.

I have read and understand the content of this SOP:

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<th>Name</th>
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