

SOM COVID-19 LAB-BASED RESEARCH GUIDELINES

Version: August 1, 2020

Please note, updates may be made as situations evolve. Always reference the the OoR website to ensure you are working under the current version.

Revisions to Plan

8/1/20: SOM work windows are no longer required as of August 1 (pg.3). 50% occupancy and social distancing must still be accomplished at the unit level.

LAB-BASED RESEARCH

The following is a working document outlining measures to allow the safe resumption of lab-based research at the UNC SOM. We expect further guidance from main campus as operations resume and these requirements will be updated to reflect any additions over the coming weeks.

You may use these documents to begin the planning process for resuming lab-based research on campus.

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LAB – BASED RESEARCH

I. Overview of SOM Guidelines for COVID-19 Prevention While Performing Research

- On June 1, research operations at the University will resume.
- Until June 1, only critical research operations approved by the Office of the Vice Chancellor for Research (OVCR) will be allowed.
- The OVCR will provide overarching parameters for opening research at UNC Chapel Hill. Each school is responsible for generating their own reopening plan within these parameters.
- Reopening of all SOM research labs is dependent on the following:
 - Guidance from the OVCR
 - HR policies governing the return of non-essential employees back on campus
 - Social distancing plans in place in SOM space
 - Testing and tracing plan in place for researchers across the University. More guidance will be provided soon from the OVCR.

Once we are allowed to resume operations at least partially, the work guidelines outlined below will allow researchers and others to maximize the safety of everyone who comes to campus to work and to reduce the spread of illness throughout our community. *It is very important to emphasize the importance of following these guidelines to not jeopardize the ability of our units to conduct research.*

Once the state and university open, there likely will be a second wave of the epidemic. The situation will be carefully monitored, and these guidelines will be adapted in accordance with changing information. The Office of the Vice Chancellor for Research is currently developing a voluntary COVID-19 testing program and plans to provide a voluntary contact tracing mobile app as additional safety measures for researchers. More details about these programs will be provided when they are available.

- All UNC COVID-19 related updates can be found at: <https://www.unc.edu/coronavirus/>
- All UNC research updates related to COVID-19 can be found at: <https://research.unc.edu/covid-19/>
- Information on the Governor's 3 W's initiative can be found at: <https://covid19.ncdhhs.gov/materials-resources/know-your-ws-wear-wait-wash>

In order to mitigate virus spreading, the guiding principle for safe laboratory operations will be social distancing. To help ensure this principle, all conduct of allowable research must minimize the number of researchers in the laboratory space or other facilities at any one time. Thus, our guidelines are designed with the goal of keeping building occupancy below 50% at any one time.

Anyone who can work from home should continue to work from home. Any individual who is at higher risk during this pandemic per [CDC guidelines](#) should take adequate precautions prior to coming onto campus. Individuals who have been instructed to return to on-site work and wish to request a disability accommodation (e.g., for disabilities that place individuals at higher risk for severe illness from COVID-19) should contact the [Equal Opportunity and Compliance Office](#) at eoc@unc.edu.

The University will provide guidance separately on requests for workplace flexibility for other situations, such as individuals who are at higher risk due to age or other factors, as set forth under CDC guidelines, or individuals who live with those who are high-risk.

Please establish coordinated work schedules for your lab personnel to reduce and maintain lab occupancy below 50% throughout the day. Scheduling is critical and we suggest you use an online calendar to manage the number of people present in your lab at any given time.

To facilitate coordination and enforcement of the guidelines, each PI should make an operational plan for their lab and send it to their Chair or Center Director depending on the unit that manages their lab space.

As of August 1, SOM work windows will no longer be required for labs and more flexibility will be provided at the unit level to maintain campus requirements for less than 50% occupancy. The lab heads within each unit must coordinate together with their Chair or Center Director to make sure not to exceed 50% capacity of their unit prior to the COVID-19 shutdown. Space that has been vacated by faculty/staff working remotely can be adapted as swing space to accommodate those that are working on campus. **In all cases, a minimum of 6ft / 200 sqft per person must be provided in the plan. Many labs and units may still need to work in shifts each day to accommodate physical distancing and 50% occupancy, but flexibility is extended to faculty and their units to determine how to accomplish the required distancing.

It is recommended that Employees and Trainees not work alone, especially after hours. If possible, plans should be in place for at least two people to work together, while following appropriate distancing guidelines.

Further guidance is expected from main campus regarding Parking on campus. Please contact the UNC Transportation and Parking Office (919-962-3951) if you have questions.

Principal Investigators are responsible for ensuring conscientious and consistent adherence to schedules and guidelines.

II. Guidelines for Laboratory Personnel Safety

- **Daily wellness check** – Perform daily checks of wellness. All laboratory personnel are encouraged to take daily temperature self-checks prior to coming into work.
- **Never come to work at a laboratory or research facility if you are experiencing any symptoms of infection.** No one should come to work if they are experiencing any of the following symptoms (not related to existing unrelated conditions) [as outlined by the CDC](#)

Cough

Shortness of breath or difficulty breathing

Fever (>100 degrees Fahrenheit)

Repeated shaking chills

Muscle aches

Sore throat

Loss of taste or smell

Vomiting or diarrhea

- If you come to work and start showing any possible symptoms of illness, you must leave the lab and inform [UNC Occupational Health and Safety](#) at 919-966-9119 and your PI. UNC students and post docs may contact [UNC Campus Health](#) at 919-966-2281.
- If you have been referred for testing, or awaiting results, you must also alert your PI and stay off campus until approved to do so by UNC Occupational Health and Safety or UNC Campus Health.
- If you are found to be SARS-COV2/COVID19-positive, please stay home for at least 14 days and follow guidance from UNC Occupational Health and Safety and/or UNC Health.
- If you have close or prolonged contact with anyone who is SARS-CoV2/COVID-19 positive or under investigation for potential exposure, contact [UNC Occupational Health and Safety](#) or [UNC Campus Health](#) for guidance and approval before going to work.
- Wear a mask on campus at all times. Please utilize a personal mask when coming and going and utilize a lab mask when arriving to the lab. Make sure to follow the steps [in this video](#) to ensure you wear your mask correctly. Do not remove the mask when going to the restroom (as indicated in the video). Pay attention to guidance on how long each mask should last and how to properly store in between wearings.
- The University will provide disposable face masks and sanitation supplies to all research employees and

trainees. The SOM Planning Office will be the point of contact and will be contacting units with more information.

- Assume everyone around you is infected, including yourself, and use appropriate precautions, including washing your hands often and avoiding touching your face. Transmission can occur from people with no symptoms.
- Please note that the CDC guidance indicates that the virus does not spread easily via contaminated surfaces, and shoes and clothing would not be a likely route of transmission. However, you may choose to:
 - Remove shoes worn outside including when working in a laboratory/facility when you return to your home.
 - Remove clothing worn in the workplace when you return to your home.
- Limit lab presence to periods that are only as long as necessary to complete your experiment. Minimize time around other people. Data analysis and similar operations should be done at home.
- Guests, shadowing students, visiting trainees, and other persons not affiliated with UNC should not visit University facilities or offices. Visitor restrictions do not apply to individuals participating in research studies being conducted in University facilities, authorized maintenance of research equipment by vendors, or to persons permitted on campus under the terms of a facility use agreement (FUA).
- Children are not permitted in University research facilities or offices during the COVID-19 event.

Be responsible and safe in the community (stores, offices, etc.) to avoid contracting the virus.

III. Guidelines for Operating a Safe Laboratory Environment

Please note that the following are guidelines only. We cannot envision every circumstance. Always exhibit your best judgement, and if you have any doubts please consult with your Department Chair or Center Director.

- **Create a work schedule for your lab and adhere to it.** This schedule should minimize the number of people in each laboratory room at any one time. A shared Google calendar or another online tool should be used to help coordinate everyone's schedule.
 - Each PI should make an operational plan for their lab and send it to their Chair or Center Director depending on the unit that manages their lab space.
 - Use an online calendar to signify who is present in lab space at any given time including weekdays and weekends.
 - Coordinate with neighboring labs for open concept lab buildings, particularly when there are shared small rooms such as cold rooms, tissue culture, etc.
 - Wear a mask when on campus and continue to maintain at least 6-feet of space between other personnel.
 - Disinfect shared materials as described below.
 - Distribute a list of duties to be performed by personnel, with location and designated time of day for indicated duties.
 - Continue to have virtual lab meetings and other virtual meetings. Time on site should be only for work that can only be done on site.
 - Stagger break times to minimize contact between people in rooms used for eating or drinking, set the schedule to maximize work efficiency and minimize down-time.
 - Be sure to disinfect surfaces such as tables and chairs before and after using such facilities. [Guidelines for disinfectants that work against coronavirus can be found at the](#)

[CDC website.](#)

- Cups, mugs, plates, and silverware must be washed with soap before and after use.
- Individuals are encouraged to eat meals outside if possible.
- Wash your hands before and after using a break room.
- **Create safe spaces to maintain at least 6 feet between researchers at all times**
 - Post lab room and other room maps with maximum room/bay occupancy to maintain social distancing (see [examples below](#)).
 - Small, narrow laboratories/facilities on the order of 100-200 square feet can only accommodate one person at a time.
 - Rule of thumb is to have 1 person per every 200 square feet.
 - Laboratories larger than 200 square feet can possibly accommodate more personnel but keep the number to a minimum. Use common sense. If you cannot maintain at least 6 feet of social distance, revise the schedule and/or reconfigure the room.
 - Move equipment to create at least 6 feet between the operators and to reduce the number of narrow spaces in labs and hallways where researchers must pass each other.
 - Consider marking the floors with tape to indicate distance from desks or benches.
 - In situations where individuals must work closer than 6 feet apart such as direct training periods, one could consider wearing additional PPE e.g. face shields, goggles, lab coats, gowns etc, although in the health care setting, masks are deemed sufficient. Please limit the amount of time individuals are closer than 6 feet as much as possible.
- **Create a plan for safe practices in the lab.**
 - Wear your own mask at all times. Masks can help protect others by containing respiratory droplets when the mask wearer speaks, sneezes or coughs. The UNC SOM is distributing surgical masks each week for SOM research personnel. Face coverings must not interfere with PPE, e.g. eye shields, required for safety and must be compatible with all safety requirements. Pay attention to guidance on how long each mask should last and how to properly store it between wearings. You may remove mask while in a private office with door closed.
 - It is recommended that individuals should thoroughly wash their hands or use hand sanitizer at least hourly.
 - Perform hand hygiene before and after using any mask or face covering.
 - Never touch the outside of the mask- always assume the outside-facing side is dirty.
 - Researchers should wash their hands with soap or use hand sanitizer upon entering and before leaving the lab and touching shared accessory devices like phones (use speaker phone if possible), computer keyboards etc.
 - Each researcher will have their own set of any tools (please label with your name or initials) that are used frequently, including pipets, reagent bottles, laboratory notebooks, and writing instruments.
 - Gloves and disposable towels should be used when handling common reagent bottles, laboratory equipment, common computers, and cabinet handles.
 - Door handles should be wiped or sprayed with 70% ethanol (or other EPA [approved disinfectant](#)) after use. Ideally post a log sheet for the lab to document daily disinfection.
 - Public facilities are cleaned by UNC housekeeping staff but please help them out. Please have lab personnel wipe down common area door handles and light switches, etc. at least once a day, preferably when first entering lab in the morning and when leaving the lab in the evening.
- **Create a plan for shared equipment. All shared equipment must be disinfected *before***

and after each use.

- Wear disposable gloves while cleaning and disinfecting. Discard gloves after each use. Clean hands immediately after gloves are removed.
 - Follow the EPA guidelines above to clean hard, non-porous surfaces and porous surfaces, as appropriate.
 - Gowns or aprons are recommended to protect personal clothing.
 - Wear eye protection when there is a potential for splash or splatter to the face.
 - Special care should be taken to disinfect equipment that normally makes direct physical contact with human skin, which includes eyepieces for microscopes, keyboards, touch pads, freezer door handles, etc.
 - Use disposable tissues, paper towels, Kimwipes, etc. to touch surfaces that cannot be disinfected and when gloves are not available.
 - Use disposable towels to turn off sink faucets after hand washing to avoid re-contaminating hands.
 - Units should consider rearranging instrumentation to ensure the required physical distancing. If instruments cannot be moved and are within 6 feet of each other, SOPs should be created to take that into account or Plexiglas shields should be placed between those instruments.
- **Create a plan for interactions with others outside the lab.**
 - No more than one person may enter an elevator at a time. Please use the stairs whenever possible and do not congregate in entrances, stairwells and elevator lobbies.
 - No more than one person should occupy common/highly frequented areas such as break rooms, offices, bathrooms, and conference rooms at any given time.
 - All persons should wear a face mask while in common rooms (even if others are not present) to provide protection in the event other people walk in.
 - Contact with other labs should preferably be through phone calls or email/text messaging except in cases of extreme emergency.
 - Transfer of items should be arranged by leaving them in a designated area rather than handing them over in person.
 - Use of shared facilities and other labs' equipment should be pre-arranged in order to avoid accidental contact.
 - Use precautions when entering a restroom or other shared use facility. Call out to assess occupancy. Use a paper towel or Kimwipe to touch door handles and faucets and wash your hands upon entering and leaving the restroom.
 - **Create a plan for a possible or confirmed case of COVID-19 among personnel in a lab.**
 - Notify [UNC Occupational Health and Safety](#) immediately at 919-966-9119

If everyone working in a laboratory or research facility uses the precautions outlined in this document, we will minimize risk of COVID-19 transmission and maximize prevention and safety. Speak up to your supervisor, Department Chair or Center Director if you observe someone not following such precautions; we are all responsible for stopping the spread of the virus. It would also be appropriate to set up a floor monitoring system in your unit.

Research facilities and buildings across campus will be periodically monitored to ensure required safety measures are being practiced. If an individual is found to be out of compliance with the required measures, they will be subject to disciplinary measures. Individuals may report non-compliance by calling the Ethics Point Hotline at (866) 294-8688. Visit the Ethics Point [website](#) for additional information.

IV. Guidelines for Research in DCM Animal Rooms

High numbers of animal users within animal rooms is discouraged. Time in animal rooms will and must be scheduled in shifts. It is essential that individuals vacate a room at or before their designated time and leave themselves ample time to clean and sanitize the work area before exiting. DCM will limit the number of animal users to a room based on the number of hoods currently in a room. DCM staff will block out mornings (e.g. 7-11am) each day to perform animal checks and provide animal care. **Labs will be contacted by building managers regarding scheduling individual animal and procedure rooms.**

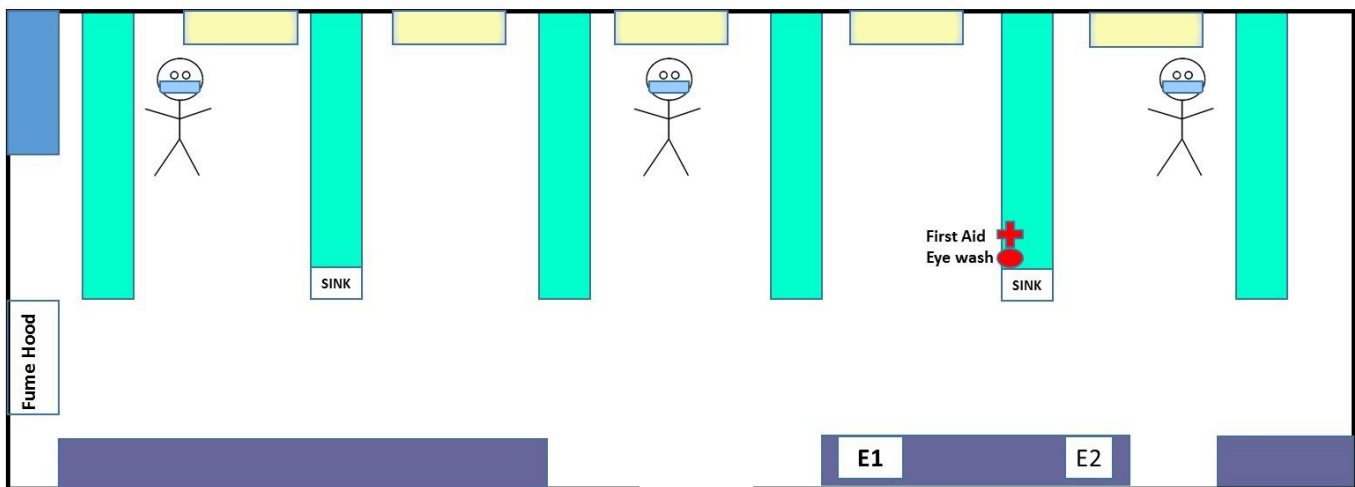
V. Examples of Lab Space Plans

Please note that the following maps serve as a guideline only. *We cannot envision every circumstance.*

We encourage you to draw your own map and tailor it to your own lab spaces and lab rooms and distribute to your research personnel.

Always exhibit your best judgement, and if you have any doubts please consult with your Department Chair or Center Director.

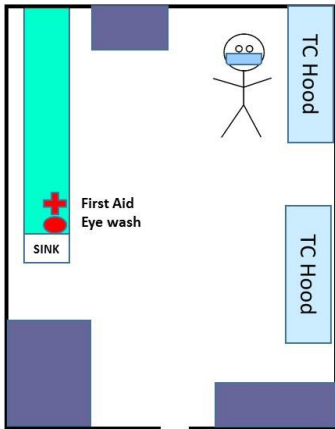
Spacing of lab personnel in laboratory room



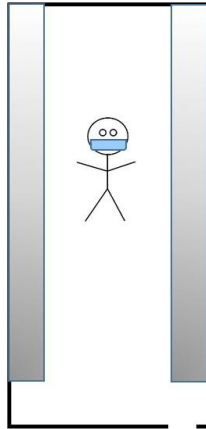
- Guideline is to keep at least 6 feet distance between 2 people and everyone wears a mask
- Work in shifts so that not all lab personnel are in lab at the same time (use online calendar for scheduling times)
- Lab = 1 person (with mask) per every 200 sq ft spaced out or 1 person per bay depending on lab configuration
- Due to proximity of Equipment 1 (E1) and Equipment 2 (E2) only one person at a time can use either E1 or E2
- Important to clean all common areas and pieces of equipment after each use

*UNC School of Medicine Office of Research
Guidelines for lab-based research, Revised August 1, 2020*

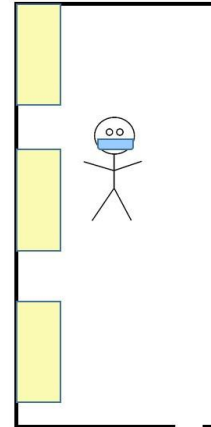
1 person per 100-200 sq ft BSL2 TC room*



1 person per warm room/cold room

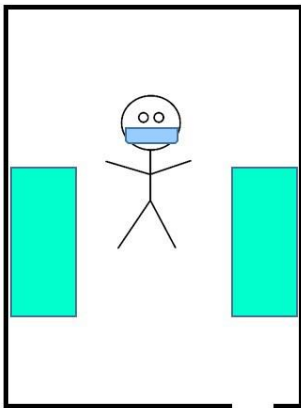


1 person per 100-200 sq ft equipment room

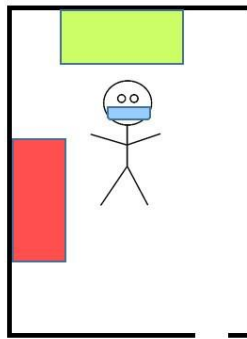


- Guideline is to keep at least 6 feet distance between 2 people and everyone wears a mask
- Each room = 1 person (with mask) per every 150-200 sq ft
- *One person per 100-200 sq ft BSL2 tissue culture (TC) room. People who work in BSL2 TC rooms either have to restrict the personnel to 1 person per 150-200 sq ft room, or adopt BSL2+ or BSL3 operating procedures which includes additional PPE.
- Important to clean all common areas and pieces of equipment after use

1 person per 150-200 sq ft break room



1 person per office



- Guideline is to keep at least 6 feet distance between 2 people and everyone wears a mask
- Each room = 1 person (with mask) per every 150-200 sq ft
- Important to clean all common areas after use
- 1 person per office

VI. Enhanced Cleaning for Prevention

General guidance:

1. Increase the frequency of cleaning and disinfecting, focusing on high-touch surfaces.
2. Practice good hand hygiene after cleaning (and always!):

3. Wash hands often with soap and warm water for at least 20 seconds.
4. If soap and warm water are not readily available, use an alcohol-based hand sanitizer that contains at least 60% ethanol or 70% isopropanol.

Safety guidelines during cleaning and disinfection:

1. Wear disposable gloves, when available, while cleaning and disinfecting. Gloves should be discarded after each use. Clean hands immediately after gloves are removed.
2. Wear eye protection when there is a potential for splash or splatter to the face.
3. Gowns or aprons are recommended to protect personal clothing.
4. Store chemicals in labeled, closed containers. Store them in a manner that prevents tipping or spilling.

Cleaning and disinfection of surfaces:

1. Clean surfaces and objects that are visibly soiled first. If surfaces are dirty to sight or touch, they should be cleaned using a detergent or soap and water prior to disinfection.
2. Clean and disinfect affected surfaces as soon as possible after a known exposure to a person with respiratory symptoms (such as coughing/sneezing).
3. Use an [EPA-registered disinfectant](#) for use against COVID-19. Refer to the list of products pre- approved for use against SARS-CoV-2. Readily available products include 70% ethanol and 10% bleach. Allow at least 2 minutes of contact time before wiping.
4. Follow the manufacturer's instructions for safe and effective use of all cleaning and disinfection products (e.g., dilution concentration, application method and contact time, required ventilation, and use of personal protective equipment)

Consult manufacturer recommendations on cleaning products appropriate for electronics. If no guidance is available, consider the use of alcohol-based wipes or spray containing at least 70% alcohol. Use of alcohol-based products may reduce risk of damage to sensitive machine components.