

Biological Sciences COVID-19 Lab Operation Plans

General Information about COVID dynamics

SARS-CoV-2 is highly infectious. Symptoms appear on average 6 days after infection and may include some combination of loss of smell and taste, fatigue, fever, cough, sore throat, and gastrointestinal problems. Infected individuals, whether symptomatic or not, can transmit the virus, and an estimated 30% of cases are asymptomatic. There is mounting evidence that suggests that the majority of SARS-CoV-2 transmission is through aerosolized droplets. Talking, yelling, singing, and vigorous exercise have all been associated with outbreaks. **Therefore, mask wearing is mandatory in all public areas of all buildings.**

General Guidelines

All work that can be done at home, should be done at home. Graduate students and employees should speak with their supervisors to determine the best operational approach for the work being conducted. Supervisors are encouraged to anonymously poll students and employees to assess their comfort with returning to lab spaces. Graduate students can reach out to the graduate coordinator (Jeff Walters) or Department Chair (Bob Cohen) with any concerns they have regarding their work.

Quarantine and Self-isolation

All employees **MUST STAY HOME IF THEY DON'T FEEL WELL**, regardless of their specific symptoms. Any person experiencing symptoms or sickness of any kind will not be allowed to re-enter the lab until 72 hours free of all symptoms and/or testing negative for the virus. Please use the latest CDC guidelines to determine if you should be quarantined (feel healthy but could have been exposed to COVID-19) or self-isolation (have symptoms or are awaiting test results) - <https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/quarantine-isolation.html>

Some general guidance:

- You should quarantine if:
 - You have been in close contact with someone that has COVID-19, including within 6 feet for at least 15 minutes, provided care, had direct physical contact, shared utensils, or were the recipient of respiratory droplets
 - While quarantining, you should stay home for 14 days after your last contact with the person who has COVID-19

If you traveled internationally or domestically through COVID-19 hotspots, you are encouraged to engage in remote work for 14 days.

Following VT policy: All University community members who have traveled within the last 14 days internationally or through identified COVID-19 hotspot areas domestically need to complete a health screening. A hotspot is defined as any geographic area or location that has had either a concentrated outbreak or a high risk of transmission.

- Students should contact the Schiffert Health Center at 540-231-6444.
- Employees and other Virginia Tech community members should contact the New River Health District COVID-19 hotline at 540-267-8420. – *if the phone number isn't working, fill out the form found here:*
<https://redcap.vdh.virginia.gov/redcap/surveys/index.php?s=9CCFTLFDK9>

Upon completion of the travel related health screening, please complete the [VT Post-Travel Registration Form](#). For more up-to date information check the [university COVID-19](#) page.

General Preventative Measures from Virginia Tech

- Facemasks and/or N95 respirators are required in all public spaces.
- Individuals must maintain 6 feet of distance at all times.
- Used surfaces should be disinfected regularly (see details below).
- No more than 1 person per 120 square feet of space can work in a single space
- Each lab must keep a log of users (see template below).
- The COVID-19 SOP must be posted in the lab (see template below).

Working in the Lab

If you choose to do laboratory work, please use the following precautions:

1. Schedule lab work times by emailing the lab PI and all other lab members when you plan to be in the lab so that only one person will be in a room at any given time.
2. Log all your lab time on the log sheet.
3. Wear a mask when moving through common areas of the building and only remove your mask when alone in a room with the door closed. Wash your hands frequently.
4. If more than one person must be in a lab room for some reason, maintain a 6-foot perimeter around each person at all times.
5. When using equipment wear gloves (e.g., equipment touch pads, freezer door handles, pipettes)
6. Before leaving lab wipe down all high touch surfaces (door handles, equipment surfaces, faucets) with disinfectant (see below) and remove and throw away gloves.

When a Lab Members Becomes Sick

If you have symptoms of COVID-19

- TAKE CARE OF YOURSELF! Do not worry about work and forward any urgent tasks to your supervisor for reassignment.
- Self-isolate and contact the Health Department (540-267-8240) or your doctor for testing.
- If you receive a positive test, work with the Health Department to complete contact tracing. If you receive a negative test, follow self-isolation guidelines until you recover.
- For any suspect cases, graduate students, post docs and employees should contact Juliet Dadras in EHS (540-231-8733; mjdadras@vt.edu) and provide a phone number only so she can call you; you do not have to provide your name. Juliet will open up a case file to protect GRA/stipend and academic process. All students should contact Schiffert Health.
- Individuals are encouraged to reach out to their supervisor and let them know when they were last on campus. All affected rooms must be blocked off until properly cleaned even for suspected cases. Please let your supervisor know which information should be kept confidential, and which information you would be willing to share for the health and safety of others.
- The immediate supervisor will inform the Department Head of positive test results and, following the Clery Act, those at risk of exposure will be notified but your identity will be protected (<https://clerycenter.org/article/covid-19-clery-act-faqs/>).
- All individuals' names and identities will remain anonymous throughout the entire process.

Departmental Reporting Policy

The supervisor/PI for the lab or administrative unit in coordination with the Department Head will send out email announcements to other members of the unit and, where appropriate, the Department at large to let them know of the potential COVID-19 case. **No names or other means of identification will be included in this announcement.** The announcement will include the following:

1. Notification of a potential COVID-19 case, pending the outcome of testing.
2. General information about where the person was working.
3. Reiteration of VT policy that everyone should self-monitor and not come into work if they are experiencing any symptoms.
4. Inform people that they should wear masks ANY TIME they are in a potentially contaminated area, and not just when others are around.
5. Reaffirm that people should clean up after themselves and wash their hands frequently.
6. Inform lab/unit members that if the test comes back positive it is possible that the Virginia Department of Health (VDH) may shut down the work area(s).

Disinfecting the lab space

- In the event of a positive COVID-19 test, VDH will take the lead in contact tracing and determine which individuals need to self-isolate, be tested, and/or the period of time the laboratory shall be shutdown.
- No individual may enter the lab until VDH has finished contact tracing and/or 7 days after the positive test was returned (whichever comes first).
- Because aerosols can survive in still air for long time period, it is strongly encouraged that spaces remain unoccupied for 72 hours, even for suspect cases, before beginning disinfection of the space.
- Lab spaces must be decontaminated if a sick person was in the room within 7 days. No action needs to be taken if the sick person was not present in facilities for >7 days.
- As of 7/8/2020, any person may volunteer to clean the space following the CDC guidelines, see detail below. Unfortunately, there is no university COVID-19 disinfecting team. (<https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/cleaning-disinfection.html>).
- Use standard techniques for working with chemicals including wearing PPE (gloves, masks, and gown if available), ensuring proper ventilation, and disposing of that PPE in a red blood borne pathogen bag for EHS pick up.
- Wash hands immediately after removing gloves with soap and water for at least 30 seconds.
- Email your supervisor to let them know that disinfection has occurred.

Specific Disinfection Guidelines from the CDC

- **Disinfect all areas such as offices, bathrooms, common areas, shared electronic equipment (like tablets, touch screens, keyboards, lab workstations) used by the ill persons**, focusing especially on frequently touched surfaces.
- Approved disinfecting agents:
 - As of 08 July 2020, there were more than 431 agents approved for disinfection.

- The full list is available here:
<https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2-covid-19>
- Some specific options:
 - Lysol Disinfectant Spray, 2 minutes contact time on hard surfaces
 - Clorox Disinfecting Wipes, 4 minutes contact time on hard surfaces
 - Diluted household bleach by mixing 5 tablespoons (1/3 cup) bleach per gallon of room temperature water or 4 teaspoons bleach per quart of room temperature water, 2 min contact time on hard surfaces
 - 70% alcohol-based solution (isopropyl or ethanol), 5 minutes contact time on hard surfaces
 - **Always read and follow the directions on the label** to ensure safe and effective use.

University-wide Virginia Tech

COVID-19 Standard Operating Procedures for On-Site Laboratories

This document must be visibly displayed in the lab.

Updated: 04.09.2020

Name:	
Principal Investigator:	
Date approved by Principal Investigator:	
Internal Lab Safety Coordinator/Lab Manager:	
Lab Phone:	
Location(s):	

Surface Disinfection:

- COVID-19 can survive up to 72 hours (3 days) on plastic and stainless-steel surfaces. From the first moment of viral contamination, the amount of the live virus on surfaces decreases significantly over these time periods.
- It is critical that every high-touch surface in the work area (drawer and cupboard handles, faucet and dispenser handles, supply bottle tops, etc.) be frequently sanitized.
- Identify and mark surfaces for disinfection and put a disinfection schedule in place that should be posted in the lab and initialed upon completion.

Social Distancing:

- COVID-19 is readily transmitted from person-to-person when they are in each other's breathing zones.
- No more than 1 person per 120 square feet of space can work in a single space, meanwhile maintaining six feet of distance among all individuals. Many research spaces are too small to meet this requirement. Consider staggering work in shifts if it cannot be achieved.
- Maintain six feet of distance between you and your coworkers. For example:
 - Maintain a distance of six tiles where there are floors tiled with 12" square tiles.
 - Hold out arms and step back until two feet separate your fingertips from others' outstretched fingertips.
 - Mark a six-foot distance with tape on the floor in commonly used spaces.
- Ask those that are too close to step back— you have the right to calmly and politely ask that of anyone you encounter in your work. If you are asked to yield space, please comply.

- Implement a work schedule so that individuals can avoid using the same space or equipment at the same time as other individuals.

Personal Protective Equipment:

Individuals working in labs must wear personal protective equipment, potentially more than they are typically included in their standard operating schedule.

Masks (Required)

- Workers should wear protective masks (disposable or multi-use appropriately cleaned and sanitized between uses) provided by the department, or a personal cloth mask.
- The use of one mask per worker per day is recommended. If masks must be re-used due to shortages, contact EHS (540-231-3600) for assistance in devising a safe re-use method.

Identification of surfaces to be disinfected, frequency of disinfection, and appropriate products listed below:

Equipment	Product to be used#	Frequency of disinfection
Doorknobs, Sink, Faucet handles, light switches, etc.	70% ethanol	Start of the day and End of the day
Cell phone and/or key card	70% ethanol or Lysol wipes found in building	Upon entry and exit of building

for a complete list of approved products see:

<https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2-covid-19>

Daily Best Practices:

- Take your temperature prior to leaving home. If you have a fever, stay home.
- Shower before coming to work and wear a fresh change of clothes.
- Upon entering the building, visit the restroom/washroom and thoroughly wash your hands with soap and water for 20 seconds.
- Continue to wear your personal cloth mask while on-site and social distance yourself from others.
- Do not touch your face or mask. If you do, wash your hands immediately.
- Sneeze or cough into your elbow or tissue; immediately place tissue in the trash. Maintain this habit even when masked.
- Before you leave the building, wash your hands with soap and water one last time for 20 seconds. After you leave the building, use hand sanitizer before touching car keys or car door handle.
- It is suggested that you immediately remove shoes when returning home and spray them with disinfectant. Any clothes worn outside the home should be immediately washed.

Prohibition against occupancy, if the individual:

- Has fever or respiratory symptoms, **or** has been in contact with anyone with these symptoms for the past 14 days;
- Has tested positive for COVID-19 and has not yet been cleared to return to work by an authorized public health official; or
- Has within the last 14 days returned from an area with reported community spread of COVID-19

NOTE: Individuals with an underlying health condition that may predispose them to COVID-19 are discouraged from working on-site.

**If there is a medical emergency, dial 911.*

Training Documentation of (signature of all users is required)
Principal Investigator Standard Operating Procedures Approval

Principal Investigator:

Print PI Name	Signature	Date

Co-Director:

Print Co-Director Name	Signature	Date

Approval Date

Student: I have read and understand

Print Student Name	Signature	Date

Other Laboratory Personnel: I have read and understand

Print Student Name	Signature	Date