Microbiology and Immunology COVID-19 Safety Plan

Resumption of Research

Context:

The Department of Microbiology and Immunology plan for the return to on-campus research during the COVID-19 pandemic is to be in accordance with BC Health and WorkSafe BC. The rules, guidelines, and procedures are to be followed in addition to those defined for the building (eg. LSC, LMRS) and institute (eg. LSI, MSL) where work is being conducted. The plan will be submitted to the Faculty of Science and is consistent with guidance from the office of the VPRI. For more information see:

https://research.ubc.ca/phased-resumption-campus-research-scholarship-and-creative-activities

Guiding principles:

The UBC guiding principles for a phased resumption of on-campus research are:

- The health and well-being of faculty members, students and staff is paramount
- The orders, notices and guidance of the Provincial Health Officer will be followed
- Permission to conduct on-campus research and scholarship can only be granted to those who require on-campus resources and cannot work remotely
- There will be a phased and coordinated approach across each campus
- Phased resumption of activity may need to be reversed and stricter curtailment conditions imposed in response to public health guidance or changes to the situation on our campuses
- If an employee has a concern about returning to work, they will have an opportunity to discuss with their supervisor, Human Resources and their employee group, as appropriate
- Equity will be considered in evaluating how to plan and conduct research resumption

In addition, the department has the following principle:

- If a student or postdoc has a concern about returning to work, they will have an opportunity to discuss with their supervisor, the graduate advisor, or the department head as appropriate

Responsibilities

Head is responsible for

- The development and maintenance of this safety plan.
- Approving faculty safety plans for their labs that ensure physical distancing and safe working practices.

- Assign and schedule monitors to ensure safety
- Communicate the department and building safety plans to faculty and research personnel

Faculty / Principal Investigators are responsible to

- Ensure all personnel under their supervision have read and understood all policies pertaining to their research site and adhere to all the Federal/Provincial regulations and UBC policies.
- Provide lab specific training for COVID prevention and record taking of lab specific training.
- Provide PPE to all lab personnel as required.
- Schedule on campus work for all personnel under their supervision to be compliant with UBC policies.
- Keep a log of all personnel under their supervision upon entering and leaving buildings on campus.
- Responsible for establishing a process for daily active self-assessments for their research group, and ensuring it is adhered to. See **Appendix 1** for more information.
- Post the VPRI access agreement stating the maximum occupancy on lab entrances.
- Employ procedures including regular wiping of surfaces and shared equipment and the appropriate use of PPE for the safety of lab personnel.
- Lab personnel are to avoid working alone. If necessary, the worker is to notify the lab supervisor or designate when they enter and leave the lab.

All on-campus faculty, staff, and trainees are to

- Read, understand and signoff that they consent to following all the Federal/Provincial regulations and UBC policies pertaining to performing research during COVID-19.
- Report concerns regarding COVID-19 to faculty supervisors, as appropriate in the context of UBC and BC privacy regulations.
- Take the mandatory and required UBC COVID-specific training course.

Procedures

Before traveling to campus

1. All work that can be done remotely must be done remotely. For example, data processing, writing manuscripts, creating presentations, studying, online library research, computations, should be done from home. If a suitable remote work environment is unavailable, you can request from your supervisor to work on campus.

2. Before you come to work, monitor your health status. Per WorkSafeBC requirements and the UBC Broadcast issued November 26th 2020, Faculty, staff and students who are on campus are now required to directly confirm to a supervisor (or designate) that they have completed a daily self-assessment for symptoms of COVID-19 on arrival at their workplace. Please use the BC self-assessment tool at https://bc.thrive.health/. See Appendix **1** for more information. According to the WHO, the common symptoms of COVID-19 are:

- Fever
- Dry Cough
- Tiredness
- Loss of sense of taste/smell
- Sore throat

Note: If a person feels that the workplace is unsafe then they are required to tell their supervisor. If they feel uncomfortable to do so or do not get a resolution, then they may approach the graduate advisor or Head and do not report to work.

On-campus work

Minimize time at UBC by working from home whenever possible. Time spent in a campus building must be kept to the minimum required to achieve research goals. Meetings will continue to be held remotely. Virtual meetings should be arranged whenever possible. In stage 2, ~2/3 of the normal occupancy of buildings will be allowed. Access will be limited and scheduled for M-F 7:00 am – 6:00 pm to ensure custodial staff can clean labs and other spaces. Work outside scheduled hours will be determined by the building plan. With permission of the head, faculty will be permitted to use their offices occasionally. The number of faculty returning should not exceed about 25% in stage 2. Access to offices will be scheduled according to the building plan.

1. Scheduling and logs.
    - The number of personnel from a research group present concurrently will be determined by the Head subject to building policy.
    - Priority for lab access will determined by the PI in accordance with UBC equity policies.
    - The PI or a delegate will schedule access of lab personnel to buildings. The schedule is to be made available to the Head on request. The schedule must abide by building hours, the need for custodial services, and UBC policy.
    - Group personnel will log entering and leaving. Use of online tools for tracking lab accesses is encouraged.

2. Physical distancing
    - Strict physical distancing of 2 meters (6 feet) must be maintained at all times. If physical distancing cannot be achieved appropriate PPE must be worn as per UBC policy (see **Appendix 2**).
    - Follow directions in buildings for elevators, stairwells, etc.
    - Do not congregate in common areas. No gatherings are permitted and meetings are to be held remotely.

3. Use of PPE

- Additional PPE usage will be according to BC Health requirements and is otherwise a personal choice.
- Additional use of PPE may be required by building or institute rules and use should follow Safety and Risk Services guidelines.
- PPE is considered "the last line of defense". Other methods of protection, such as social distancing, good hygiene practices, and administrative steps (such as work shift rotations) etc. are superior. See Appendix **3**.

4. Masks
   - Non-medical masks are required in all indoor shared spaces at UBC, per UBC's COVID-19 Campus Rules. Masks are required everywhere, except in the case of approved single occupancy of an office. If you must remove your mask in order to take a food/drink break, ensure you keep an adequate distance from those around you, and replace your mask as soon as possible. The usage of masks of any kind does not alleviate the requirement to adhere strictly to social distancing measures put in place by the university.

5. Wash hands or use hand sanitizer when entering or leaving any space such as
   - Entering or leaving a building
   - Common labs and other spaces

6. Lab and office cleaning
   - Disinfectant should be used to wipe down any frequently touched surfaces pre- and post- use.
   - Principal investigators will establish lab-specific cleaning procedures.

Emergency Procedures

In the event of an emergency, building emergency plans are to be followed while adhering to the best possible physical distancing practices.

- See the updated Building Emergency Response Plan (BERP) for BioSciences.
- The LSC Emergency Response Procedures can be found at: https://mednet.med.ubc.ca/ServicesAndResources/Facilities/LSC/Health-Safety/Pages/Emergency-Contacts-Procedures.aspx

Maintaining a safe working environment for everyone

A safe work environment is a shared responsibility. The UBC, Faculty, building, and Department plans and policies do not cover every possible circumstance that may arise. Faculty, staff, and trainees are encouraged to discuss (from a safe distance, or preferably online) work place safety and recommend changes to common practice in their workplace and to this document.

Overall compliance will be monitored by inspection of electronic sign-in logs, key card access, and periodic checks by safety staff. Concerns about non-compliance should be reported to their lab

manager, supervisor, or the Department Head. A monitor (typically a faculty member, but may be another responsible person like a health and safety office or department administrator) will be designated for each day who is a safety contact in the event of an accident. The contact information of the monitor will be broadcasted so that they can be reached if there is a safety incident. The monitor will inform the lab supervisor (and Head/Director if necessary) of any infractions. A pattern of non-compliance could result in losing building access.

Communications

This plan will be emailed to all faculty, staff, and students engaged in research. A copy will be made available on the department website under resources with a link on the home page. A physical copy of this document will be available on the bulletin board located on the main floor of LSC, located in the main colonnade, near the entry points to LSC1 and the West Atrium.

Appendix 1: Confirmation of Active Self-Assessment — a temporary WorkSafeBC requirement for all faculty and paid personnel*

*Note: the requirement for confirmation of active self-assessment will be removed once the Provincial Health Authority and WorkSafeBC have rescinded the related Order. Units will be notified when this occurs. Please note, however, that the requirement to actively self-assess is ongoing.

Faculty and staff are encouraged to continue to work remotely whenever possible.

Faculty, paid personnel and contractors who do come to campus are now required to directly confirm to a supervisor (or designate) - upon arrival at their workplace - that they have completed a daily self-assessment for symptoms of COVID-19 and followed the direction provided.

This is a Two Step Process: Managers and Supervisors need to document that the verification was completed. In other words, keep a record confirming that each employee on a UBC premises has completed their self-assessment at the beginning of their shift.

A number of methods can be used to confirm that a self-assessment (using the tool at https://bc.thrive.health/) has taken place, such as:

- Written health check declaration completed by workers before entry
- An online health check form, completed by workers before entry (Supervisors & Managers should be reminded that they will be responsible for checking online forms daily to ensure compliance)
- A verbal check in, done either in person, virtually, or by phone with every worker, confirming that the worker has completed their daily health check, and a record that this confirmation was received.
- A QR code system, accessed at building entrances
- Use of “Slack”
- Use of “Microsoft Teams”

Note: any method that is employed MUST:

a) Include a mechanism for daily monitoring of confirmations and compliance
b) Employ only general questions that do not ask for personal health information. One example question is “ Please confirm that you have completed the COVID-19 Self-Assessment and followed the direction provided”, and
c) Maintain records of all confirmations. Records can be electronic or paper based.

Anyone experiencing symptoms should follow the guidance provided in the self-assessment tool.

Active self-assessment — for unpaid students

Students taking part in face-to-face classes, or attending campus for other reasons, now need to directly confirm to their instructor/UBC representative that they have completed a self-assessment for symptoms of COVID-19 before arriving at their class. Please use the BC self-assessment tool at https://bc.thrive.health/.

This is a Single Step Process: Teaching Staff and faculty with students who attend UBC premises for face to face instruction should verify that the students completed their self-assessments, but will not need to document that active screening occurred.

Anyone experiencing symptoms should follow the guidance provided in the self-assessment tool. Please note that the requirement to actively self-assess is ongoing.

What are the questions in a self-assessment?

UBC recommends the BC COVID-19 Self-Assessment Tool is used. The benefit of the tool is that it will direct people with instructions specific to their situation based on the answers they enter into the tool. It is also confidential and doesn't require UBC to collect any personal health information.

Questions used as per the WorkSafeBC Entry Check Poster are also considered acceptable:

Please do not enter this workplace if you:

- Have travelled outside of Canada in the last 14 days
- Have been identified by Public Health as a close contact of someone with COVID-19
- Have been told to isolate by Public Health
- Are displaying any of the following new, or worsening symptoms:
    - Fever or Chills
    - Extreme fatigue or tiredness
    - Cough
    - Headache
    - Loss of a sense of smell or taste
    - Body aches
    - Difficulty breathing
    - Nausea or vomiting
    - Sore throat
    - Diarrhea
    - Loss of appetite

For additional information, please visit: https://srs.ubc.ca/covid-19/health-safety-covid-19/frequently-asked-questions-covid-19-self-assessment-requirements/

Appendix 2: Guidelines for Procedures (e.g., training) When it is not Possible to Physically Distance in the Workplace

(Note: In this document, research personnel = students, post-docs, RAs, staff, technicians, etc. for research, but not faculty)

Background

Many research projects in laboratories require close, hands-on training of new research personnel, especially undergraduate students, where physical distancing is not possible. During Phase 1 of UBC's research resumption, the Faculty of Science Guiding Principles stated that only research personnel who were already fully trained can undertake research in a laboratory. In Stage 2 and Stage 3, more undergraduate students as well as other new trainees (e.g., graduate students, post-docs) will work in research labs. As well, in practical undergraduate labs that are able to run, there may be interactions between teaching assistants, lab managers, and students where physical distancing is not possible. This document sets out the guidelines for work and training that requires close interactions (< 2 m physical distancing) in the Faculty of Science.

Scope

These guidelines impact all research personnel who are working in labs and undergraduate students carrying out laboratory experiments in the Faculty of Science on campus at UBC during COVID.

Purpose

This work instruction covers the mandatory use of Personal Protective Equipment when the required job duties prevent individuals from practicing physical distancing (i.e. individuals working together are unable to maintain a 2 metre distance). These may be necessary as part of hands-on training of research personnel and must be approved by the research supervisor (PI).

Safety Precautions

- Avoid working, socializing, or taking breaks within a 2 meter radius of any other person at all times, unless approved.
- Wash your hands frequently for at least 20 seconds using soap and water.
- Avoid touching your eyes/nose/mouth with unwashed hands.
- When you sneeze or cough, cover your mouth and nose with a disposable tissue or the crease of your elbow and then wash your hands.
- Any employee or investigator team member not feeling well or experiencing signs of illness will stay at home and self-isolate as directed by the Provincial Health Officer and/or a physician.

Procedure

While physical distancing is one of the primary measures to prevent viral transmission, there may be laboratory situations where maintaining a full 2 m of physical distance is not feasible. When 2 research personnel (or a PI + research personnel) need to work in close proximity where physical distancing is not

possible, the overarching objective of keeping exposure to individuals outside of your household as low as reasonably achievable remains by organizing tasks and work environments to minimize the duration spent in close proximity.

In addition to standard controls, it is recommended that the researchers wear something that will cover their mouth and eyes (e.g., a face shield and/or goggles with a disposable nonmedical mask***) as an additional measure.

**** Note that not all face shields provide the same level of transmission reduction. Also, the face shield must be clearly labeled as a COVID-19 control so it is not mistaken for a PPE face shield.***
*****The researchers must be trained in the proper SOP for the use and disposal of disposable surgical masks.***
******Please note that since non-medical masks are not constructed to an approved certification standard, they must not be assumed to provide a known level of protection – and must not be treated as a better option than hand washing and social distancing.***

Where procedures require Personal Protective Equipment (PPE) independent of COVID-19 prevention measures, the required PPE must be donned prior to commencing the task. Where that procedural PPE supplants conflicts with the recommendation of masks above, the procedural PPE should take precedence. For instance, if the task requires the use of an N95 respirator please follow the work instructions associated with that procedure or task.

It is also recommended that individuals wear lab coats and gloves unless other PPE have determined to be more appropriate.

Doffing of the PPE at the end of the task should be in the order as follows:

1) Remove gloves
2) Wash hands with soap and water for 20-30 seconds (or 90 seconds if working with pathogens)
3) Remove face shield or goggles
4) Remove face mask by the straps
5) Repeat hand washing

<u>Reusing PPE</u>

The day to day reuse of face masks is not encouraged. The mask can be reused for the day only. If a mask has become moist or soiled throughout the day, it should be changed out for a new one. If it is not needed continuously throughout the work day, store it in a paper bag labelled with your name in between uses. Ensure that the inside of the mask is not touched with unwashed hands when placing or removing the mask from the bag. Dispose of the mask and the bag at the end of the day.

The day to day reuse of goggles and face shields is encouraged. The goggles and face shields should be wiped down (visor, lens, strap, headband) with disinfectant (e.g., 80% ethanol) before and after each use.

Appendix 4: UBC COVID-19 Personal Protective Equipment (PPE) Guidance Document

Version dated September 2020, available here.

UBC Employee COVID-19 PPE Guidance Overview

This document provides guidance about UBC's stance on employee Personal Protective Equipment (PPE), including industry standard face masks/respirators, gloves, homemade and non-surgical masks, and other PPE in relation to COVID-19 and other infectious diseases.

Visit ubc.ca/covid19 for more information about UBC's response to COVID-19, including frequently asked questions.

Current health guidance related to PPE

Throughout the current COVID-19 global outbreak UBC has taken direction on infection prevention from the Provincial Health Officer, the BC Centre for Disease Control (BCCDC) and Vancouver Coastal Health (VCH), and continues to do so. This guidance can be expected to evolve as these agencies continually monitor accumulating scientific evidence to determine how we can best prevent the spread of COVID-19.

As this document has been developed, the current health guidance from the above agencies can be summarized as follows:

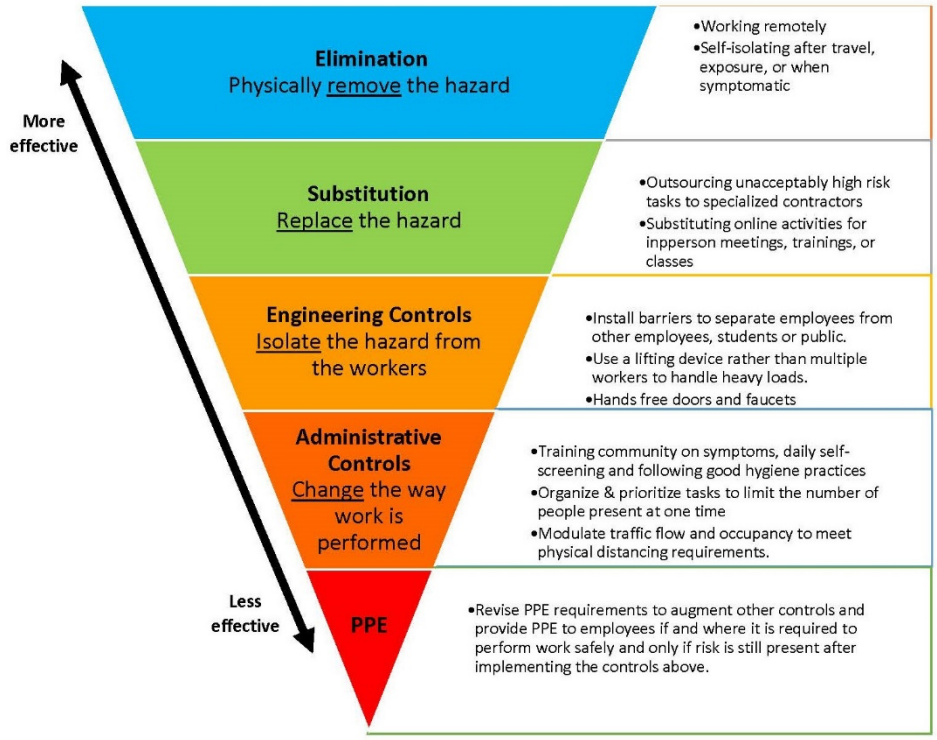
- Incorrect selection and/or use of PPE may increase your risk of exposure.
- Using non-medical or homemade protective equipment does not diminish the need for physical distancing, frequent hand washing and avoiding touching your face.
- There is no established proof that wearing non-medical or homemade protective equipment protects the person wearing it, and it may provide a false sense of security.
- Wearing a non-medical mask in public may help to limit the travel of your respiratory droplets when you cough, sneeze or talk — which may help to protect others.
- Medical/surgical masks should be used by people who are sick, and health care workers.
- N95 Respirators, medical masks and other critical PPE are in short supply and are needed by health care workers to safely care for their patients.

PPE in the workplace

Based on the above medical guidance and circumstances on our campuses, UBC's position on PPE is as follows:

- UBC employees carrying out tasks that require PPE, including respirators, will continue to be supplied with the appropriate equipment, as per the relevant safe working procedure.
- UBC employees are required to wear a non-medical mask at work, provided it does not interfere with them safely carrying out their duties.
- UBC asks the campus community to be respectful of students, faculty and staff regardless of whether they are wearing masks.

The role of PPE in protecting employees: PPE is used to protect employees from specific risks, however it is the least effective method to protect employees, as outlined in the Hierarchy of Controls diagram below. The diagram also includes examples of current UBC COVID-19 risk mitigation activities



Respirators & Masks

Respirators are one type of PPE, and conditions of their usage for workplace safety are closely regulated by WorkSafeBC. To be effective, all respirators used must be fitted to an individual's face through a fit test. Health care workers may be directed to wear either N95 Respirators or medical/surgical masks as part of their PPE for specific tasks and under the regulations as they pertain to health care settings.

Supply shortages in N95 respirators have prompted the assessment of KN95 respirators as an alternative to address particulate respiratory hazards. However KN95 masks have been deemed inappropriate for occupational use at UBC due to the inability to properly fit test them and lack of vendor clarity around manufacturing standards. Any KN95 masks received as donations cannot be issued to UBC employees.

Gloves

There are many types of gloves, and the choice of gloves must take into account all of the hazards that may be present, as gloves are rated for their usefulness as a barrier to different types of chemicals. Medical gloves create a barrier around the hands to reduce an individual's risk of exposure to hazardous agents. This type of PPE can be used during infectious outbreaks but must be used carefully to avoid transferring contamination between the handling of infected and clean items. Personal electronics, high touch surfaces, and other shared items are prone to this 'cross-contamination.'

Eye & Face Protection

Eye protection, through safety glasses or goggles, and face shields is recommended for health care workers where there is the potential for any spraying or splattering of blood or other bodily fluids. Safety glasses can be found in various different styles and offer side protection in the form of either wraparound arms or shields. Goggles offer a higher degree of spray/splatter protection compared to safety glasses due to their ability to form a tight seal around the eyes. Face shields can protect the entire face from biological hazards. A face shield is often considered a secondary safeguard to protective eyewear. In other words, face shields are typically not used on their own. As per WorkSafeBC requirements, these types of PPE need to meet CSA Standards.

Information about using non-medical masks

- UBC employees are required to wear a non-medical mask at work, provided it does not interfere with them safely carrying out their duties.
-UBC asks the campus community to be respectful of students, faculty and staff regardless of whether they are wearing masks.

For further information, visit the UBC non-medical mask webpage.

Advice on PPE at UBC

If you have any questions or require advice about PPE at UBC, or if you need to widely communicate information in this document, please contact Safety & Risk Services by emailing ready.ubc@ubc.ca.