COVID-19 Workspace Safety Plan – Lab Specific

This workspace safety plan will assist Principal Investigators who wish to continue or resume research activities in their lab. This plan will include a review of activities to be undertaken in the lab to ensure effective controls are in place to prevent the spread of COVID-19. Principal Investigators are responsible for ensuring this document reflects current government guidance and notices which can be found, along with information about UBC’s response to the pandemic at https://covid19.ubc.ca/.

This plan must be reviewed by your Local Safety Team, and signed by your Unit Head/Director. Once complete, the plan can be submitted with your online application to return to research.

Standard hours of return: Phase I occupancy 7 AM to 6 PM Monday to Friday.

Resources to Consult
The following guidance documents and resources were used in the development of this plan:

- Preventing Exposure
- Personal Protective Equipment
- Physical Distancing Guidelines
- Reporting COVID-19 Exposure
- Communications Resources
- UBC Research Resumption webpage
- WorksafeBC

Section #1: Lab information

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<tr>
<th>Department</th>
<th>Electrical &amp; Computer Engineering</th>
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<tr>
<td>Faculty</td>
<td>Applied Science</td>
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<tr>
<td>Building(s)</td>
<td>Brimacombe</td>
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<tr>
<td>Lab(s)/workspace(s)</td>
<td>Biophotonics Lab in room 143</td>
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Introduction to Your Lab

The Biophotonics lab occupies AMPEL room 143 with a single PI. Current size of the group is 6 graduate students. Typically, we also get 1-2 summer students.

Section #2 - Risk Assessment

1. Lab/workspace Occupancy (under proposed COVID-19 operations)
List the number of people that will be present in your lab/workspace at the same time. List this by every room/lab/workspace you occupy.

Confirm that you have discussed each employee's comfort level with returning to work and have addressed any concerns, or will require further assistance in doing so. Any worker (staff, students, faculty, post docs, research associates, technicians and other research personnel) who has concerns about returning to work on campus can request an exemption to his/her supervisor.
List the users of the lab space and the approximate number of hours per week in the table.

- In Phase 1, only one person will be working in the lab (room 143) at the same time, which is about 1/3 to 1/4 of the previous normal operation.
- We have discussed the comfort level with returning to the lab and have addressed any concerns in our zoom meeting and by email.
- The names of students and PI who have requested to return to the lab are listed below. Those people need to carry out research experiments in the lab. Each student will get about 12 hours per week to work in the lab.

<table>
<thead>
<tr>
<th>Name</th>
<th>Status</th>
<th>Email</th>
<th>Mobile number</th>
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<tbody>
<tr>
<td>Xin Zhou</td>
<td>PhD Student</td>
<td><a href="mailto:starforwind@gmail.com">starforwind@gmail.com</a></td>
<td></td>
</tr>
<tr>
<td>Qihao Liu</td>
<td>MASc Student</td>
<td><a href="mailto:qihao.liu@alumni.ubc.ca">qihao.liu@alumni.ubc.ca</a></td>
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<tr>
<td>Christoph Brandt</td>
<td>MASc Student</td>
<td><a href="mailto:christoph.t.brandt@gmail.com">christoph.t.brandt@gmail.com</a></td>
<td></td>
</tr>
<tr>
<td>Ning Zhang</td>
<td>MASc Student</td>
<td><a href="mailto:zhangningnku@gmail.com">zhangningnku@gmail.com</a></td>
<td></td>
</tr>
<tr>
<td>Shuo Tang</td>
<td>Faculty member</td>
<td><a href="mailto:tang@ece.ubc.ca">tang@ece.ubc.ca</a></td>
<td>778-886-9957</td>
</tr>
</tbody>
</table>

2. Hazard Identification
Describe what hazards exist in your lab/workspace; both research-related (chemicals, heavy machinery) and COVID-19-related (areas that require closer personal interaction, equipment/instruments that cannot maintain social distancing i.e. that require >1 person to operate).

Some of the experiments involve operating lasers, where the risk is evaluated to be low. The students have obtained proper laser safety training and they have previous experiences on operating the lasers.

3. Employee (HQP, research staff, other) Input/Involvement
Detail how you have involved frontline workers (HQP and research staff) and Joint Occupational Health and Safety Committees (JOHSC) and/or Local Safety Teams (LST) in identifying risks and protocols as part of this plan.

Describe how you will publish your plan (online, hardcopy) and otherwise communicate workplace health measures to employees. Guidelines from SRS are available here: [https://srs.ubc.ca/covid-19/health-safety-covid-19/working-safely/](https://srs.ubc.ca/covid-19/health-safety-covid-19/working-safely/)

- This plan has been prepared by following the guideline from AMPEL
- Details and procedures outlined in the plan have been discussed with members of the research group in our zoom meeting.
• Final plan and other workplace health information will be communicated to the students by email and in our zoom meeting.
• A paper copy will be posted on the door along with a statement of the maximum occupancy.

**Section #3 – Hazard Elimination or Physical Distancing**

• We will follow the general practice and guideline provided by UBC and AMPEL building.

**4. Scheduling**

For those required or wanting to resume work at UBC, detail how you are rescheduling employees (e.g. shifted start/end times) in order to limit contact intensity at any given time at UBC.

Discuss your **working alone procedures** and how they will be adapted for this safety plan. Also describe how you will track those entering/leaving work i.e. sign in/sign out process.

• We will maintain only one person working in the lab at the same time.
• Google calendar or similar tool will be used to schedule lab use.
• We have created a Biophotonics Lab WeChat group to communicate and track entering/leaving lab information in real-time.
• The person will only work in the lab during the standard building hours when there are other people in the building. The person will sign in and sign out using WeChat group for real-time updating. When the person does not sign out by 6 pm, the PI or the lab manager will make contact of the person by cell phone. When the Check-in Designate (buddy) fails to make contact, the buddy will contact Campus Security at 604-822-2222 for an in-person check.

**5. Occupancy limits, floor space, and traffic flows**

APSC recognizes that labs are dynamic environments and it may be challenging to adhere to physical distancing guidelines. Nonetheless, controls must be in place to keep personnel spaced at least 2m apart at all times. Clear communication of this to employees, monitoring of implementation, in addition to physical controls (signage) are needed.

**As such:** Using floor plans and/or photographs of your lab/workspace:

1) Identify and list the rooms and **maximum occupancy** for each workspace/area;
2) Illustrate a 2 metre radius circle around stationary workspaces/benches/instruments and common areas or equivalent approach to social distancing; and
3) Illustrate one-way directional traffic flows

* There will be only one person working in the lab (room 143) at the same time.

**Section 4 – Engineering Controls**

**6. Cleaning and Hygiene**

Detail the cleaning and hygiene regimen required to be completed by HQP, research staff and the PIs for common areas/surfaces (Custodial has limitations on cleaning frequency, etc.).

Outline specific cleaning processes and schedule for high-touch equipment, specialized/sensitive equipment or other unique circumstances to your lab/workspace. Detail how and what types of
cleaning products and disposal options you will provide. If possible, include cleaning stations/infrastructure on your lab photos/plan.

When entering the lab:
  • Disinfect the door knobs and light switches with ethanol-based cleaning product.
  • Wash hands with soap and water at the sink.

When working in the lab:
  • Recommend to wash hands with soap and water at the sink regularly.

When leaving the lab:
  • If you have used the common work surface or the shared equipment (e.g. power meter), disinfect those surfaces with ethanol-based cleaning product.
  • Disinfect the door knobs and light switches with ethanol-based cleaning product.
  • Wash hands with soap and water at the sink.

The used cleaning supplies (e.g. wipes and paper towels) should be disposed in the trash bin and left outside of the lab door.

We will prepare a sanitization checklist for cleaning of surfaces, tools, door handles both upon entry and upon exit.

7. Equipment Removal/Sanitation
Detail your appropriate removal of unnecessary tools/equipment/access to areas and/or adequate sanitation for items that must be shared that may elevate risk of transmission, both research-related (i.e. instruments, tools) and general (i.e. coffee makers in break rooms)

  • Each laser system will be assigned to a main user. Others who wish to use that system needs to get permission from the main user.
  • If you have used a shared equipment such as the power meter, you need to disinfect the equipment with ethanol-based cleaning product after you use it.
  • Use WeChat group to provide real-time communication within the Biophotonics Group which equipment you have used and whether disinfection has been performed.

8. Safety Infrastructure Requests (Partitions, Plexiglass installation)
Describe any needs for safety infrastructure i.e. physical barriers, plexiglass installation required for your lab/workspace and if possible include them on your photos/room plan.

We will have only one person working in the lab at the same time. Thus, safety infrastructure is not needed.

Section 5 – Administrative Controls

9. Communication & Training Strategy for Employees
Describe how you (the PI) have or will communicate the risk of exposure to COVID-19 in the workplace to your HQP/research staff/other employees and the safety controls in place to reduce such risk.

Detail how you will ensure that all employees successfully complete the Preventing COVID-19 Infection in the Workplace online training and orientation to your specific safety plan
• Each person who requested to return to the lab will complete the preventing COVID-19 Infection in the Workplace online training before permission will be granted.
• Any concerns about returning to the lab can be raised to the PI through email or during our weekly zoom meetings.
• Everybody in the group has been informed that any person with symptoms must stay at home.
• We will maintain contact through cell phone and/or WeChat group when working alone in the lab.

10. Signage
Detail the type of signage you will utilize and how it will be placed (e.g. floor decals denoting one-way walkways and doors, ‘cleanliness state’ of equipment/instruments, hand-washing guidance). See WorksafeBC for signage guidelines and templates.
• There will be only one person working in the lab at the same time.
• Hand-washing guidance will be posted near the sink.
• Usage and cleanliness state of equipment will be communicated via WeChat group.

11. Emergency Procedures & Reporting
Pls must ensure that all employees entering the lab should be aware of the Building Emergency Response Plan (BERP) and have access to it. If applicable, detail your strategy to amend your lab’s emergency response plan procedures during COVID-19.


The Brimacombe BERP will be available in the new lobby and will be posted on the website.

12. Monitoring
Describe how you will monitor your workplace (supervisor, departmental safety representative, other) and update your plans as needed; detail how employees can raise safety concerns (e.g. via the JOHSC or Supervisor).

• The lab manager (Ning Zhang) will monitor compliance with the plan and report to the PI. The lab manager will check that hand soap, disinfectant, paper towel are kept up, check that regulations are posted, and report violations to the PI.
• The building manger and floor wardens can also monitor the compliance with the plan.
• There will be one person working in the lab at the same time in order to ensure social distancing. The person will only work in the lab during the standard building hours when there are other people in the building. The activities are very low risk. The person will sign in and sign out using WeChat group for real-time updating. When the person does not sign out by 6 pm, the PI or the lab manager will make contact of the person by cell phone. When the Check-in Designate (buddy) fails to make contact, the buddy will contact Campus Security at 604-822-2222 for an in-person check.

Section #6 – Personal Protective Equipment (PPE)
13. Personal Protective Equipment
UBC has a central process for purchasing PPE. Describe what PPE you will require for your lab.
The used cleaning supplies (e.g. wipes and paper towels) should be disposed in the trash bin and left outside of the lab door.

### Researcher Agreement
SAFE-RETURN-TO-WORK AGREEMENT
THE BRIMACOMBE BUILDING

Signature line for researcher (faculty, student, research staff, post-doc etc.) and administrative staff acknowledgment

I ______ Shuo Tang ______________________ have read and understand the additional precautions being taken during this time, as outlined in the Brimacombe Phase I Safety Plan, my lab’s Workspace Safety Plan. I have read and agree to abide by the safety plans, and to undergo training that will be required by UBC once it is put in effect (we anticipate video training that all those entering the building will be required to complete):

RESEARCHER/ SIGNATURE or STAFF
Signed

DATE
June 4, 2020

SUPERVISOR/ SIGNATURE or DIRECTOR in case of PIs
Signed

DATE
9 June 2020

Supervisor is to keep a copy of this document in the lab and/or accessible electronically from the lab, in case of Local Safety Committee, SRS or WorkSafe BC audit.
## Acknowledgement

I confirm that this Safety Plan has been shared with all workers (HQP, research personnel, etc.) who will be accessing this space both through email and will be made available as a shared document. For shared labs, please add the number of signature lines needed to cover all PIs who intend to have researchers use the space, e.g. including for students who will visit for a short period of time to use an instrument.

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<tr>
<th>Date</th>
<th>Name (Manager or Supervisor)</th>
<th>Signature</th>
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<tbody>
<tr>
<td></td>
<td>Shuo Tang, Supervisor</td>
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<tr>
<th>Date</th>
<th>Name (Additional PI)</th>
<th>Title</th>
<th>Signature</th>
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<tbody>
<tr>
<td>9 June 2020</td>
<td>John Madden, AMPEL Director</td>
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## Department/School Head/Director Approval

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<th>Signature</th>
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