

# Continuity of Operations Plan (COOP) for Raman Lab

## Department of Biochemistry

(please check specific department/college/university policies as needed, see <http://covid19.wisc.edu>;  
Lists of items are not exhaustive but intended to help think through local situation)

This template addresses three areas: (1) Contacts and background information, (2) Planning to operate under different risk levels, (3) Planning to operate with disruption or shutdown.

### CONTACTS AND BACKGROUND

#### Staffing

##### 1. Essential personnel

Vatsan Raman	<a href="mailto:sraman4@wisc.edu">sraman4@wisc.edu</a> vatsanraman@gmail.com
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Name	Email
Jackie Chen	jchen859@wisc.edu
Chutikarn Chitboonthavisuk	chitboonthav@wisc.edu
Phil Huss	phuss@wisc.edu
Megan Leander	mleander@wisc.edu
Xiangyang Liu	xliu249@wisc.edu
Anthony Meger	ameger@wisc.edu
Kyle Nishikawa	knishikawa@wisc.edu
Max Frenkel	mfrenkel@wisc.edu
Ziyun Ye	<a href="mailto:ye82@wisc.edu">ye82@wisc.edu</a>
Sarah Schmidt- Dannert	schmidtdanne@wisc.edu

## 2. Non-essential Personnel

Erik Iverson	<a href="mailto:ejiverson@wisc.edu">ejiverson@wisc.edu</a>
David Salamzadeh	<a href="mailto:dsalamzadeh@wisc.edu">dsalamzadeh@wisc.edu</a>
Blake Zimmerman	<a href="mailto:bbzimmerman2@wisc.edu">bbzimmerman2@wisc.edu</a>

### External resources

- **Bio safety contact** – Ann Larson, [ann.larson12@wisc.edu](mailto:ann.larson12@wisc.edu)..
- **Chem safety contact** – Tilak Chandra, [tilak.chandra@wisc.edu](mailto:tilak.chandra@wisc.edu)

### Continuity of authority

Who is responsible for the lab, and who are two backup decision-makers in case the responsible individual is unable to make decisions on operation or shutdown? Provide name, email, and best emergency phone number for each.

- (PI) Vatsan Raman, [sraman4@wisc.edu](mailto:sraman4@wisc.edu)
- Phil Huss, [phuss@wisc.edu](mailto:phuss@wisc.edu)
- Xiangyang Liu, [xliu249@wisc.edu](mailto:xliu249@wisc.edu)

### Communication

- Group messaging will be via slack and email. Important group notices will be sent to [biochem\\_raman\\_lab@lists.wisc.edu](mailto:biochem_raman_lab@lists.wisc.edu) and posted in the RamanLab slack channel. Note that the contact-list channel within that group has all lab members contact information.
- Email – [biochem\\_raman\\_lab@lists.wisc.edu](mailto:biochem_raman_lab@lists.wisc.edu)
- Video conferencing for virtual lab meetings will be by zoom or Webex. Meeting ID or other connection info will be posted in Raman Lab slack and sent to [biochem\\_raman\\_lab@lists.wisc.edu](mailto:biochem_raman_lab@lists.wisc.edu).

### Remote Data access, exchange, and security

- Electronic Data Storage – Everything must be saved on the file server, Box or Dropbox. Gels, flow cytometry data, and other data can be stored on the server if you have a clear organizational structure. Lab protocols must be stored on Benchling.
- Work in progress, such as paper drafts may be shared on Box/Dropbox/Fileserver.
- Use of VPN to maintain secure access to campus IT systems (see <https://it.wisc.edu/services/wiscvpn/>). If you have any issues connecting, please contact IT for assistance using the job board and let me know via email or text.

## Research Priorities:

1. *Wet-lab experiments*: We have no essential wet-lab experiments currently in progress. Phil has already turned off all equipment. Bacterial colonies on solid plates are stored in the 4C fridge. All plasmids, enzymes stored in -20 C. Glycerol stocks are stored in -80 C freezer.

## What to do if someone feels unwell?

If you feel unwell or have been in contact with somebody that is ill or tested positive for COVID-19, alert Vatsan immediately via phone or text and please do not come to the lab. Vatsan will communicate with the group. Follow the campus guidelines (<http://covid19.wisc.edu>).

Posters with symptoms should be posted and are available from the CDC and others (see e.g., <https://www.cdc.gov/coronavirus/2019-ncov/downloads/COVID19-symptoms.pdf>), as should those about handwashing (see e.g., <https://www.cdc.gov/handwashing/materials.html>).

## OPERATIONS UNDER DIFFERENT RISK LEVELS

1. *Operation as normal.*

Labs/offices staffed during business hours and after hours. Lab meetings in person.

2. *Operation with limited risk – e.g., no known cases in the municipality.*

Labs/offices staffed during business hours and after hours with essential personnel members only.

- General SOPs in place for minimizing community spread (see below).
- Particular vigilance for
  - Personal hygiene
  - Space hygiene
  - Social distancing
  - Symptom monitoring (see above)
- Lab meetings per videoconferencing.
- Heightened communications - Look for slack and email messages from Vatsan

3. *Operation with heightened risk – e.g., known cases on campus.*

Labs/offices staffed only by essential employees, limited hours. Lab meetings held by videoconferencing during regular lab meeting schedule.

- General SOPs in place for minimizing community spread (see next page).
- Those with manuscripts in progress or computational projects can continue to work from home. If you have any questions please contact me or your grad student mentor (undergrads). We will have group meetings on Mondays at 10am.
- Heightened communications –Look for slack and email messages from Vatsan

## General SOPs for Minimizing community spread:

Current SOPs in the lab require daily surface sterilization of work spaces using 70% EtOH, and frequent hand washing. In addition, we will implement the following steps to minimize the possibility for virus transmission:

1. We will strictly enforce access to all laboratory spaces by authorized lab personnel only. All other personnel entering laboratory spaces must seek permission by PI first. This includes facility personnel, as well as personnel from external contractors. Exceptions are emergency situations that pose immediate risk, such as fire.
2. Occupancy of all labs that are assigned to the PI will be limited to ensure adequate distancing to 6 ft, as currently recommended by the CDC.
3. Only healthy personnel, regardless of the level of symptoms, are allowed to enter the lab spaces.
4. Upon entering any laboratory space, personnel must wash hands immediately and in accordance with CDC guidelines, before touching any surfaces (see above).
5. Working surfaces will be sterilized with 70% Ethanol prior to assuming work.
6. In-person communication will use at least 6 feet distancing.

Resource from OSHA, <https://www.osha.gov/Publications/OSHA3990.pdf>,

#### **Maintaining the community of the lab:**

- We encourage everybody to check in with each other via the group chat.
- Remote lab meetings will be held via video conferencing, at the usual scheduled times.

In addition to these measures, we will comply with all regulations, implemented by the university, and accessible through <http://covid19.wisc.edu>.

#### **SCENARIO PLANNING FOR DIFFERENT LEVELS OF DISRUPTION**

Instructions: Listed below are three potential scenarios that might result from COVID-19. Under the scenarios listed, provide a step by step response detailing how your lab would respond to the scenario. In addition to the 3 scenarios listed, additional lab specific scenarios can be added, if needed. The section, “other concerns” provide additional information that might should be included in your COOP.

**Scenario 1 - Disruption:** Several members of the lab are out sick / unavailable for an extended period, and some suppliers or internal dependencies are at risk; Add as many steps/bullets as needed.

- *Example Step: Shut down hazardous process materials*
- *Example Step: Selected staff would work on non-hazardous cleanroom maintenance projects, protected by social distancing if necessary*

1. Have a lab buddy – be sure that your buddy knows what you are working on.
2. For work in progress, keep an accessible copy of the protocol (hard copy on your lab bench or electronic copy on Benchling) with obvious notation of where you are in the protocol so that someone else can pick up and complete any critical steps.

3. Make sure all protocols clearly note the next point at which the sample or experiment can be paused and stored in a long-term stable state.
4. Do not start experiments that require expensive reagents and require more than 2-3 days to complete or reach a good stopping point.

**Scenario 2 - Suspension:** Students not allowed on campus; research and lab activities suspended; infrastructure support systems remain operational; Add as many steps/bullets as needed.

1. All equipment shut down or in idle mode. Double check that all flames or heat sources are off and gas is turned off. Check that gas cylinder regulator valves are closed.
2. Check that all chemicals and unwanted material containers are capped and stored appropriately.
3. All lab members work remotely, electronic communication and meetings as usual.
4. Vatsan and Biochem department staff will do lab walk throughs to make sure everything is OK.

**Scenario 3 - Shutdown:** For a campus shutdown planned for longer than two weeks, or else if the campus is inaccessible, we cannot assume critical infrastructure would be available or is at least unreliable. Place all instruments and experiments in a safe idle state that does not require services. Additional details in this scenario relate to equipment shutdown and the like.

- All equipment shut down or in idle mode. Double check that all flames or heat sources are off and gas is turned off. Check that gas cylinder regulator valves are closed.
- Check that all chemicals and unwanted material containers are capped and stored appropriately.
- All lab members work remotely, electronic communication and meetings as usual.
- Vatsan and Biochem department staff will do lab walk throughs to make sure everything is OK.

#### **Other concerns to consider in scenario planning**

What facilities are at risk of harm to the facility, its contents, to campus or to the public (e.g., animals that must be fed, samples that must be secured, equipment or hazardous materials that must be maintained or shut down)?

1. Hazardous gases - NONE
2. Animal care - NONE
3. Water cooled equipment that can be damaged by loss of water -NONE requiring continuing operation.
4. Loss of nitrogen purges - NONE
5. Static tanks/containers of chemicals in hoods and loss of exhaust – All should be capped.
6. Vacuum systems pump and valve off.
7. Turn off UV lamps.
8. Ensure all chemical bottles are in storage cabinets and all bottles have secure lids.
9. Cap all solvent carboys
10. Empty all trash containers – remove any chemical contaminated wipes

If the lab must be staffed to avoid risk or harm, who will act as the primary minimum essential personnel to keep it operating? If the lab mustn't be staffed, state that it will shut down to ensure no risk or harm. Provide name, email, and best emergency phone number for each.

**We have one -80C freezer and two -20C freezers. Only walk through requirement is to check on these alarms as needed.**