

Continuity of Operations Plan (COOP) for Ntambi 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

| | | | |
|-----------------|--|--|-------------------------|
| James M. Ntambi | | | ntambi@biochem.wisc.edu |
|-----------------|--|--|-------------------------|

| Name | Email |
|---------------|--|
| Sarah Lewis | salewis3@wisc.edu |
| Lucas O'Neill | lmnell@wisc.edu |
| Zhan Qiping | Qzhan3@wisc.edu |
| Zhaojin Liu | zliu572@wisc.edu |

Zhaojin Liu (Student ID 9077688910) is our laboratory's only undergraduate student and is starting his senior year. His expected graduation date is December 2020. In lab, Zhaojin will play a major role in genotyping our mouse colony, performing qPCR on our samples, and maintaining lab supplies. Zhaojin will also be assuming some duties of our research technician, who is leaving July 20th; without Zhaojin, we will be short staffed.

External resources

- **Bio safety contact** – Ann Larson, ann.larson12@wisc.edu
- **Chem safety contact** – Tilak Chandra, 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.

- a. (PI) James M. Ntambi, ntambi@biochem.wisc.edu
- b. Sarah Lewis, salewis@wisc.edu
- c. Lucas O'Neill, Imonell@wisc.edu

Communication

- Lab Meeting and individual meetings by UW Webex (secured) and Zoom (password),
- Individual correspondence by phone or UW email.
- To assign detailed individual tasks, we will use email and Microsoft Teams (UW account)

Remote Data access, exchange, and security

- We will use UW email for data exchange of small files. We will use UW BOX for storage/access to larger files or datasets, and We will use UW VPN for access to our lab data for organizational and archival purposes. These should all be secure.

Research Priorities:

Wet-lab experiments:

All experiments will be under the NIH NIDK 118093: Role of Liver Stearoyl-CoA Desaturase-1 in the Regulation of Metabolism and the Hatch Program MSN189590: Role of Hepatic Stearoyl-CoA desaturase-1 in High Carbohydrate-Induced Metabolic Disease.

1. Define the role of SCD1 deficiency in regulating FGF21 expression in the liver and whether adiposity is dependent on FGF21 stimulated adiponectin-mediated liver-adipose tissue axis. Lucas O'Neill will carry out experiments intended to complete his PhD program in the next few months. Zhan Qiping and **Zhaojin Liu** will assist Lucas O'Neill on this project

2. To determine whether SCD1 deficiency mediated decrease in hepatic *de novo* fatty acid synthesis, steatosis. Sarah Lewis and Yar Xin Phang will conduct these experiments to generate extra data to complete a manuscript on fatty liver disease for submission.

The investigators will follow social distancing procedures described below. If a member falls sick another member will complete the experiment.

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

APPENDUM, INFORMATIONAL, the information below was shared with by Vice Chancellor for Research & Graduate Education on March 15, 2020 with the VCRGE Center Directors to assist them in continuity planning. It is included here to further assist your planning activities.

Center directors;

See the message below from the Chancellor. The message provides guidance to ensure the safety of our community while offering the least disruption to our work. To summarize:

- *Please maintain your center research activities to the extent possible.*
- *Review your COOP plans and activate as appropriate.*
- *Formulate and disseminate plans that guide ramping down and then suspension of research if needed.*
- *Encourage remote work for those staff that can do so without disruption, while others (i.e., those you identified as essential personnel in your COOP plans) are expected to be on campus.*
- *Continue to practice recommendations and procedures that reduce the spread of the virus.*

While most research can be conducted with appropriate social distancing and typical hygienic steps, the COVID-19 outbreak has presented us with significant challenges. I thank you for your continued leadership in these challenging times. The RSP webpage, which is updated regularly, is an excellent source of information about sponsored projects: <https://rsp.wisc.edu/COVID.cfm>

Some specific actions you can take include:

- *Identify critical equipment that must remain in service, then plan for how to manage or shut down this equipment if necessary.*
- *Strive to keep all lab activities within reasonable business hours — including those involving work with hazardous material or processes. Doing so enhances the ability of Research Safety to respond if services are needed.*
- *Continue or expand cross-training among your staff to support critical functions.*
- *Identify personnel who are essential to maintain critical research and ensure they know what to do if operations are interrupted or suspended.*
- *Distribute your communications plan to personnel. If necessary, develop this plan and designate contacts to help disseminate information in a timely manner.*
- *Identify priorities and plan for critical experiments in case of limited access.*
- *Take steps to ensure remote access to files, data, servers, etc., except with regard to research with sensitive or restricted data.*
- *Research must be conducted within appropriate space designated for research activities. Personnel should not remove research materials other than laptops, data storage devices, etc. to alternative locations, including home.*
- *Plan for remote proposal submission.*
- *Be sure to check travel restrictions in advance of making travel plans.*