

**Continuity of Operations Plan (COOP) for
Bednarek Lab
Department of Biochemistry**

This continuation of operations plan, developed in accordance with department/college/university policies (<http://covid19.wisc.edu>), 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

Name	Primary phone	Secondary phone	Email
Jessica Cardenas			jjcardenas@wisc.edu
Dana Dahhan			dahhan@wisc.edu
Ashley Cortes-Hernandez			corteshernan@wisc.edu
Sebastian Bednarek			sybednar@wisc.edu

2. Non-essential Personnel

Name	Primary phone	Secondary phone	Email
Fang Hao			fhao2@wisc.edu
Morgan Leigh Davies			mldavies@wisc.edu

External resources

• **Bio safety contact** – Louise Meske (meske@wisc.edu). The Bednarek lab operates under BSL1 (biosafety protocol [B00000125-GP003](#)); we do not work with any human or animal pathogens only lab strains of E. coli and Agrobacterium tumefaciens.

• **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) Sebastian Bednarek sybednar@wisc.edu
- b. Dana Dahhan dahhan@wisc.edu
- c. Jessica Cardenas jjcardenas@wisc.edu
- d. Ashley Cortes-Hernandez corteshernan@wisc.edu

Communication Plan

The laboratory uses MS Teams meetings to communicate as a full group every week. This is supplemented by communication via text messaging, phone and email for individual conversations. In addition, documents are shared via MS Teams and/or distributed through UW Madison Box.

Remote Data access, exchange, and security

All users will collect data on appropriate laboratory instruments or other computers and backed up in Box accounts. Files related to active projects and group presentations are shared via the Files feature of MS Teams.

Research Priorities:

Researchers are funded by the National Science Foundation, UW Madison OVCRGE and USDA-HATCH. The aims of our research program are to understand the molecular mechanisms involved in intracellular trafficking and signaling required for plant growth and development. Current research priorities are to conduct wet lab experiments necessary for several of the Bednarek lab graduate students to complete their thesis projects.

Dana Dahhan's Ph.D. thesis project is related to the goals of the National Science Foundation project.

Jessica Cardenas is completing experiments related to the USDA-HATCH project. She is currently scheduled to complete and defend her Ph.D. thesis by December 2020.

Ashely Cortes-Hernandez is working of the UW Madison OVCRGE project. She is currently scheduled to complete and defend her M.S. thesis by the end of August 2020.

During phase 2 reopening we are requesting that the following undergraduates be permitted to conduct research in the lab:

Morgan Leigh Davis, a senior undergraduate in the lab, is conducting research for her senior thesis entitled "Localizing MyTH in Order to Understand its Role in the SCD Complex and Plant Exocytosis" which will provide data for a grant proposal submission.

Fang Hao, a senior undergraduate in the lab, received a Hilldale award and is conducting research for his senior thesis entitled "Function and localization of SCD2 homologs in Arabidopsis thaliana" which will provide data for a grant proposal submission.

What to do if someone feels unwell?

Researchers will be asked to review the CDC and campus policies related to temperature monitoring and to monitor their temperature and other wellness indicators on a daily basis. Researchers will notify the PI and all lab members via if they have a fever of 100.4°F (38°C) or higher or other symptoms (e.g. shortness of breath, cough) and will stay at home.

Researchers that feel unwell or live with someone that feels unwell (or has tested positive for COVID-19) should not come to lab. In these situations, please follow campus guidelines (<http://covid19.wisc.edu>) and alert Sebastian Bednarek (P.I.) via email or phone who will communicate with the group. It is recommended that if the symptoms last longer than one day, the researcher should have a free COVID-19 test performed to inform subsequent decisions.

Lab members are familiar with the current CDC documents listing symptoms of COVID-19 infection (<https://www.cdc.gov/coronavirus/2019-ncov/downloads/COVID19-symptoms.pdf>) and proper handwashing (<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 - Buddy system in place for animal work. Look for text and email messages from PI

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

- Our lab group has reviewed and will regularly re-review as a group the UW-Madison guidelines and recommendations on research. Lab meetings will only be held by videoconferencing. When

not conducting wet lab experiments it is expected that you should work remotely (for example writing papers, theses, working on presentations). No undergraduates should be in the lab until further notice.

General SOPs for Minimizing community spread:

Researchers will review the following UW-Madison guidelines and recommendations individually and in a research group meeting focusing on research restart before entering campus research space:

- Overview portal for UW-Madison COVID-19 information: <https://covid19.wisc.edu>
- UW Madison guidance on face coverings: <https://facilities.fpm.wisc.edu/returning-to-campus-safely/>
- OVCERGE guidelines on phased resumption of research: <https://research.wisc.edu/reboot-phase1/>
- Recommendations to bring labs back on-line: <https://d1cjb8q1w2lzm7.cloudfront.net/wp-content/uploads/sites/22/2020/05/EHS-ADM-GUI-002.pdf>.
- This COOP plan for our lab will be shared with all researchers.
- The research floor COOP which will be shared with all researchers on the second floor of the DeLuca Biochemistry Laboratories building.

In summary, researchers will practice state and federal recommendations for minimizing exposure and transmission risks including physical distancing, maintaining cleanliness in all parts of the workspace, and diligent hygiene practice including constant, thorough hand washing, covering of coughs and sneezes. Other lab requirements for use of personal protective equipment within the worksite is already specified in the lab Biological Safety and Chemical Safety protocols will be continued.

Researchers will wear face masks whenever present in campus public spaces or whenever two or more researchers are present in the lab as indicated in the campus guidance: <https://facilities.fpm.wisc.edu/returning-to-campus-safely/>.

Maintaining the community of the lab:

The lab will continue to enforce guidelines and practices as outlined in its Chemical Hygiene Plan and BioSafety protocols. Special emphasis will be placed on the potential for any researcher to become unavailable for an extended period, so lab space will be consistently cleaned in an ongoing manner and samples stored at the end of each day.

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.

Current Scenario – Approved Research Restart: The lab requests restart of research activities being carried out prior to the campus shutdown.

The Bednarek main lab (Room 219 HFD laboratories) has 1479 sq ft of contiguous lab space. Based on this space we are requesting that 3 graduate students be permitted to occupy this space at any time. In addition, during phase 2 reopening, we are requesting that 2 undergraduate research assistants be permitted to work in the main lab. These students will work in non-overlapping 4hr shifts for a total of 20 hrs/week (4hrs each per work day). Only one undergraduate research assistant will be permitted to work in the lab at a time. All occupants of the main lab will practice physical distancing and will wear masks.

The main lab is configured to have several internal rooms (219A, 219B, 219C, 219D). In addition we need to maintain access and use of Rooms 222, 224 and 226, adjacent to the main lab, for tissue culture work and microscopy as well as cold-room space (Rm 212) and plant growth chambers in B246, which we share with the Amasino Lab. The size of these additional rooms permits only one researcher to be present at a time. Because the use of these rooms is integral to the work of all researchers, and the time spent in these rooms is typically short, we will maintain physical distancing by permitting only one researcher in these rooms at any time with a 20-minute period of air clearing between occupants. Researchers in the Bednarek and Amasino labs will coordinate through the use on a Google online signup sheet for the use of the shared cold-room and plant growth chamber space in B246.

The 3 female graduate students and 1 female undergraduate research assistant in the Bednarek lab will use 2nd floor restroom, 258. The PI and male undergraduate research assistant will use the 214 restroom.

The recommendation based on 350 sq ft per person permits 4 people in the main lab. The 3 graduate students, who are currently working full-time in the lab, each occupies a separate bay within the lab. If permitted the two part-time undergraduate students, will work in non-overlapping 4hr/day shifts in separate bays of the lab maintaining a limit of 4 persons working in the lab. All lab personnel will coordinate with each other when research will begin and end via text messaging and a Google signup sheet to reserve time for use of the shared cold room, tissue culture and plant growth room facilities to avoid overlap and utilizing morning and afternoon shifts. Researchers understand that time in the lab should be carefully planned to accomplish benchwork efficiently and that data analysis, literature review, and writing should occur remotely.

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.

Ongoing experiments will be stopped and materials preserved for future analysis. For live plants, other researchers will maintain plants until seed is produced for storage. We would request limited access to our tissue culture facilities to maintain cell lines.

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.

If suspension from the anticipated research restart is needed, the lab will follow procedures used to shut down the lab at campus order on March 16. Completion of this process took 1 day.

Ongoing experiments will be stopped immediately, and biological samples, reagents and other research materials will be stored for long-term viability. Computers and instruments will be shut down. Biochemistry building personnel will ensure operation of refrigerators, cold rooms, and freezers where samples are stored.

We would request limited access to our growth chambers to maintain plants until seed is set and to our tissue culture facilities to maintain cell lines.

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.

If shutdown from the anticipated research restart is needed, the lab will follow procedures used to shut down the lab at campus order on March 16. Completion of this process took 1 day.

All samples and research materials will be stored for long-term viability. Critical materials will be transferred to a freezer connected to a backed-up power supply. All instruments and computers will be shut down.

We would request limited access to our growth chambers to maintain plants until seed is set and to our tissue culture facilities to maintain cell lines.

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)?

No materials in the lab pose a safety risk if left unattended.

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.

The main lab does not require staffing to avoid risk or harm. Biochemistry building personnel will monitor freezers, refrigerators, and cold rooms storing research materials. Emergency contacts for the lab are Sebastian Bednarek sybednar@wisc.edu and Dana Dahhan dahhan@wisc.edu