Continuity of Operations Plan (COOP) for
Craig 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

Name	Email
Elizabeth Craig	ecraig@wisc.edu
Szymon Ciesielski	sjciesielski@wisc.edu
Wojciec Delewski	delewski@wisc.edu
Brenda Schilke	schilke@wisc.edu
Amit Verma	akverma2@wisc.edu
Thomas Ziegelhoffer	tziegelh@wisc.edu
Paige Hill	pmhill2@wisc.edu

Request addition of Paige Hill, an undergraduate, who studies ribosome associated chaperones Ssb and NAC, in support of NIH grant GM35 127009 (Functional Diversity of Hsp70 and J-protein Chaperone Systems). Paige has worked during the academic year in the Craig lab since January 2019, under the supervision of Brenda Schilke and Tom Ziegelhoffer. Paige is familiar with all the techniques she will use during the semester.

2. Non-essential Personnel

Name	Email

External resources

- **Bio safety contact –** Ann Larson, ann.larson12@wisc.edu. Note that our lab operates as BSL1 and we do not have any pathogens in the lab, only *E. coli* and *S. cerevisiae.*

- **Chem safety contact –** Tilak Chandra, tilak.chandra@wisc.edu, 608-622-9761

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. Elizabeth Craig (PI), ecraig@wisc.edu,
b. Thomas Ziegelhoffer, tziegelh@wisc.edu,
c. Brenda Schilke, schilke@wisc.edu,

Deleted: (608) 658 6701, (608) 233 7341

Deleted: (608) 688 0901, (608) 238 1867

Deleted: (608) 235 0327, (608) 848 5638

Communication Plan

- Group messaging will be via TEAMS and email. Important group notices will be posted in the existing Craig Lab TEAMS site.
- Video conferencing for virtual lab meetings will be by TEAMS, Webex or Skype. If not on TEAMS, connection information will be posted there.

Remote Data access, exchange, and security

- Electronic Data Storage – Data should be saved on the file server (do not archive "junk data" in here).
- Work in progress, such as paper drafts may be shared on Box. Once completed, final copies should be archived on the server.
- 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 EC know via email or TEAMS chat.

Research Priorities:

1. *Wet lab experiments*: All under the umbrella of NIH GM35 127009 Functional Diversity of Hsp70 and J-protein Chaperone Systems
   - Ribosome-associated chaperones. Wojtek Delewski, Amit Verma, Paige Hill and Tom Ziegelhoffer will carry out these experiments (site-specific in vivo crosslinking, immunoblot analysis) to complete the aims of the grant and compete the final repetition experiments for manuscript submission. They will follow the social distancing and cleaning procedures described below. If a team member becomes ill, another member will complete experiment.

   - Functional Diversity of Type A and B J-domain proteins. Brenda Schilke and Szymon Ciesielski will carry out these experiments (yeast growth analysis, immnoprecipitations, immunoblots, yeast strain construction, protein purification) needed to complete the aims of this grant and finish experiments needed for publication of manuscripts in their final stages. They will follow the social distancing and cleaning procedures described below. If one of the team becomes ill, another member will complete experiment.

2. All *E. coli* are stored as glycerol stocks at -80 °C, plasmids frozen at -20 °C, and protein samples stored at -80 °C.

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 EC immediately via phone or text and please do not come to the lab. EC 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

3. *Operation with heightened risk – e.g., known cases on campus.*
    - General SOPs in place for minimizing community spread (see next page).
    - Work should continue remotely whenever possible.
    - A maximum of 7 people from the list of essential personnel will be present in the lab at one time to ensure that there is no more than 1 person per 200 square feet. Essential personnel will only be present in lab to perform tasks that must be performed in person in the lab and will minimize time in lab needed to carry out the required tasks.
    - Lab google calendars will be used to reserve key pieces of shared equipment to ensure social distancing within the lab.
    - No undergraduates should be in the lab until further notice.
    - EC met with everyone individually and you should have a plan for what you are working on, along with your priority for time in the lab and for work from home during phase 1. If you have any questions please contact me. We will have group meeting on Wednesday at noon, subject to change to allow critical experiments to be carried out in a timely manner. We will also have one on one meetings.

- Heightened communications –Look for TEAMs messages from EC and labmates.

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 - All other personnel entering laboratory spaces must seek permission by PI (EC) or lab manager (TZ) first. This includes facility personnel, as well as personnel from external contractors. Exceptions are for pre-scheduled access for shared equipment OR 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. Specifically:
    a. Biochem 445: 7 persons
    b. Biochem 445A/B/C, 450, 447 equipment rooms: 1 person
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 and at completion of work.
6. A mask MUST be worn if you approach within 6 feet of another person or two individuals are present within a small equipment room at the same time. These interactions should be minimized (no more than 5 minutes) when needed to quickly access samples or equipment in a time-sensitive experiment.
7. 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:

- Lab members are encouraged to check in with each other via TEAMS chat.
- Remote lab meetings will be held via video conferencing, at 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.

1. Have a "lab buddy" – be sure that your buddy knows what you are working on and can arrange next steps of experiments to prevent loss of important data/strains.
2. For important work in progress, keep an accessible copy of the protocol (hard copy on your lab bench or electronic copy on the server) 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 without PI approval in advance.

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.

- All equipment shut down or in idle mode.
- Double check that all flames or heat sources are off and gas is turned off.
- Autoclave and remove all biohazardous waste from laboratory.
- Store all plasmids, strains and protein preps.
- Check that all chemicals and unwanted material containers are capped and stored appropriately.
- All lab members work remotely, electronic communication and meetings as usual.
- TZ and Biochem department staff will do lab walk throughs to make sure everything is OK.

Also consider…

Restart will require a 0.5 day to fully clean the lab, followed by another 0.5 day to restart and test equipment.

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.

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.

a. Tom Ziegelhoffer tziegelh@wisc.edu

Deleted: (608) 688 0901, (608) 238 1867

Key equipment: three -80°C freezers.

Rm 450: Revco Legaci, METASYS ALARM 450-1

Equipment hallway 418:

Thermo/Forma ULT, METASYS ALARM 418-3

Thermo scientific TDE series in equipment hallway 418, METASYS ALARM 418-2

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.*