## Levels of Research Operations

**Important Notice:** Laboratories must follow MSU guidelines in accordance with CDC recommendations for disinfecting facilities in the event that a laboratory member is confirmed to have COVID-19. The following are approved disinfection methods, and one of these two options will be determined in consultation with the principle investigator (PI), department head or director, Office of Research Compliance (ORC), and Safety & Risk Management (SRM) in the event of a confirmed COVID-19 case:

* **OPTION 1: Seven-day shutdown of the laboratory.** Entrance into the laboratory is prohibited during the seven-day period unless approved by ORC and SRM for short-term, emergency entrance with appropriate personal protective equipment. This option will be the default, unless a PI has coordinated with ORC and SRM an acceptable plan for deep cleaning that will not harm equipment, experiments, and neighboring laboratories/spaces.
* **OPTION 2: Deep cleaning of the laboratory.** Disinfection of porous items (i.e., lab notebooks, cardboard, etc.) sensitive equipment, reagents, and experimental samples may be impacted by this option. Please note that if it is determined that SRM approved deep clean methods could harm neighboring laboratories and spaces, this may not be an option.

### Level 0: Normal

* Normal operations

### Level 1: Caution and Preparation for Modified Operations

* Maintain social/physical distancing (i.e., 6 foot distancing between individuals) and encourage use of face coverings consistent with university guidelines and CDC guidance.  In rare circumstances where social/physical distancing is not possible due to the nature of the work, require the use of face coverings and other personal protective equipment that is appropriate for the given circumstance.
* Consider instituting rotations and/or split schedules of lab work, and allowable telework options, to reduce the number of individuals in the laboratory at any one time.
* Maintain good hygiene practices consistent with CDC guidelines. Key guidelines include, but are not limited to, the following:
	+ Frequent hand washing.
	+ Avoid touching your face, eyes, nose and mouth.
	+ Frequent disinfection of common areas and equipment.
* Develop a written plan for how you would manage during Level 2 research operations.
	+ Level 2 research operations plans do *not* need to be formally submitted during Level 1, but you are encouraged to consult with your supervisor, staff and/or the Office of Research Compliance with questions.
	+ A Level 2 research operations plan template is available as Appendix A
* Consider key laboratory functions or field work that must remain in working order for your research to survive a prolonged shutdown (e.g., cell lines, animal colonies, transgenic lines, equipment needing liquid nitrogen, etc.).
* Consider mitigation plans to prevent loss of critical supplies, reagents and other materials.
* Determine if you can work without certain shared resources being available on campus (i.e., mail services, fiscal shared services, janitorial work, routine pick-ups, etc.).
* Consider working with IT proactively to ensure access to data remotely.

### Level 2: Modified Operations with Approved Exceptions

* A lab or field-work research slowdown or shutdown plan (or exemption from slowdown) must be submitted to the appropriate department head or director and Office of Research Compliance within 24 hours of the announcement of Level 2.
	+ A Level 2 research operations plan must designate no more than three lab members as essential staff, unless adequate justification can be provided and social distancing can be maintained.
	+ This plan must outline procedures (e.g., rotations, driving separate vehicles, etc.) to ensure social distancing.
* Essential experiments allowed under guidance of an approved plan (see Appendix A) – those experiments that, if discontinued, would generate significant financial or data loss.
* All research buildings will be locked and should only be accessed by the PI and lab members designated as essential staff. Do not prop open any doors or allow anyone that is non-essential to piggyback in.
* Maintenance and access of key shared resources continue under appropriate guidelines and approved plans (i.e., animals, plants, cell lines, liquid nitrogen, etc.)

### Level 3: Mandatory Shutdown with VPREDGE Approved Exceptions

* Under a Level 3, there will be a mandatory laboratory and field-work shutdown for all research labs, unless designated by the Office of Research Compliance and the Office of the Vice President for Research, Economic Development, and Graduate Education.
* No new experiments, unless approved by Office of Research Compliance.
* Initiate the Outbreak Response Operations for the Animal Resources Center ABSL1 and ABSL2, Jutila Research Laboratory ABSL3, and the Johnson Family Livestock Facility ABSL2. For additional details for animal care, refer to ARC Human Infectious Disease Outbreak Response Plan that was distributed on Feb 28, 2020.

### Level 4: Mandatory Shutdown with Presidential Approved Exceptions

* Under a Level 4, there will be a mandatory laboratory and field-work shutdown for all research labs, unless designated by the Office of Research Compliance, the Office of the Vice President for Research, Economic Development, and Graduate Education, and the Office of the President.
* Maintain and modify as needed the Outbreak Response Operations for the Animal Resources Center ABSL1 and ABSL2, Jutila Research Laboratory ABSL3, and the Johnson Family Livestock Facility ABSL2. For additional details, refer to ARC Human Infectious Disease Outbreak Response Plan that was distributed on Feb 28, 2020.

**APPENDIX A: Template Response Plan for Level 2, 3, and 4 Research Operations**

Laboratory Principal Investigator(s):

Name: Dept/Institute: Phone:

Name: Dept/Institute: Phone:

Laboratory Location(s):

Building(s):

Room Number(s):

**1. Are you able to transition *all* of your team (i.e., postdocs, students and staff) to remote work for at least the next 15 days\* (i.e., data analysis, data interpretation, writing, literature review, etc.)?**

* YES
* NO

\* Please recognize that the 15 days is a minimum, but the laboratory shutdown may be longer. You will always have a chance to revisit this form and update.

If YES, sign and date this form, and provide a copy to your supervisor and the Office of Research Compliance.

Signature: Date:

If NO, continue you Question 2.

**2. Are you able to transition *some* of your team to remote work for at least the next 15 days\* (i.e., data analysis, data interpretation, writing, literature review, etc.)?**

* YES
* NO

List the team members that you are able to transition to remote work and provide a short description of what you’ve asked each member to work on. *Be sure to abide by contract terms and consult with Human Resources with any questions.*

*[Feel free to expand this field or attach a document/plan]*

List the team members that you are NOT able to transition to remote work and provide a short description of what your plan is (i.e., leave options, temporary layoff, appeal as essential staff and seek approval for continued in-laboratory work, etc.). *Be sure to abide by contract terms and consult with Human Resources with any questions.*

*[Feel free to expand this field or attach a document/plan]*

**3. Would closing your laboratory or field-work lead to significant financial or data loss?**

* YES
* NO

If NO, please sign and date this form, provide a copy to your supervisor and the Office of Research Compliance, and temporarily halt studies until research operations return to Level 1 as designated by the Vice President for Research, Economic Development and Graduate Education.

Signature: Date:

If YES, please proceed to Question 4.

**4. Briefly describe the research activities that needs to continue and a plan to ensure social distancing (i.e., 6 ft perimeter from other humans during work) and other recommended measures to mitigate risk. Identify up to three trained laboratory or field work members as “essential staff” that will maintain the work/equipment/colony/etc. Describe additional mitigation plans to ensure safe and responsible conduct of the research during this limited access (if granted). Finally, acknowledge that there could be additional disruptions to other campus and non-campus services that could further disrupt your mitigation plan and that you will update this plan regularly if such circumstances arise.**

*[Feel free to expand this field or attach a document/plan]*

Signature: Date:

**Administrative Signatures Only**

**Level 2 Plan Authorization:**

Department Head or Director:

Name: Signature: Date:

Director, Office of Research Compliance:

Name: Signature: Date:

**Level 3 Plan Authorization:**

Department Head or Director:

Name: Signature: Date:

Director, Office of Research Compliance:

Name: Signature: Date:

Vice President for Research, Education and Graduate Education:

Name: Signature: Date:

**Level 4 Plan Authorization:**

Department Head or Director:

Name: Signature: Date:

Director, Office of Research Compliance:

Name: Signature: Date:

Vice President for Research, Education and Graduate Education:

Name: Signature: Date:

President:

Name: Signature: Date: