

**Return to Work Policies and Procedures for Molecular Plant Sciences Building post COVID-19
(Revision 7/24/2020)**

Addendum 6/8/2020 (Approved 6/9/2020): Sections changed are highlighted in red text and the detailed policy changes are provided in the addendum at the end of this document.

Addendum 7/24/2020: Changes in Food and Drink Policy. The detailed policy changes are provided in the addendum at the end of this document.

Revision 7/24/2020: Updates on MSU Coronavirus (COVID-19) Workplace Health Screening Form.

Molecular Plant Sciences (MPS) Building Reactivation Committee:

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The Molecular Plant Sciences (MPS) Building is comprised of three large open-plan laboratory spaces arranged over three floors (2nd, 3rd and 4th), plus a basement with plant growth rooms and preparation rooms. In addition, research office space and a computational biology office suite are located on the first floor of the building. This first floor office space will not be considered in this research reactivation plan as the outlined procedures are solely focused on reactivation of wet-lab research. The MPS Building houses 14 research groups headed by faculty from four departments (Biochemistry & Molecular Biology, Plant Biology, Horticulture, and Plant, Soil & Microbial Sciences) and the MSU-DOE Plant Research Laboratory. The open floor plan of the wet-lab and office space on the 2nd, 3rd and 4th floors of the MPS Building requires the development of a careful and cohesive plan for all researchers from individual labs sharing the space to minimize the risk of contracting coronavirus SARS-CoV-2 causing COVID-19.

This protocol has been developed by the MPS Building Reactivation Committee to enable a safe return of research personnel to the MPS Building while there is still a risk of contracting the virus causing COVID-19 from co-workers. This protocol might change or reverse as conditions warrant or require. Activities in all research laboratories of the building are limited to those that can only be done on campus. If your research work can be done at home, you will be expected to stay at home. Nobody should be compelled to come to work while there is risk of contracting the virus causing COVID-19 from co-workers. MSU prohibits coercion of students and other vulnerable groups to report to campus to maintain their assistantship or postdoctoral research associate support. In addition, there will be no retaliation against individuals who choose to stay home or who leave work when they are at particular risk of either contracting or infecting others with COVID-19. Undergraduate students should not be in the lab unless they are paid employees who are performing a critical function of the research. This document does not apply to research field sites on campus, at KBS or at remote locations. Separate guidelines and policies for field sites will need to be developed in coordination with the appropriate administrators of the facilities.

The following document includes a general plan that is common to the entire MPS Building, and is followed by three appendices that address the lab-specific plans for each shared research space and the common areas on the 2nd, 3rd and 4th floors of the building.

General Building Plan

I. The guiding principles of these Policies and Procedures include the following:

1. The building has remained operational during the shutdown with regular building inspections performed by Robert Bryan (MPS Building Manager). Equipment has been routinely monitored and repaired as needed, and in principle, the building is ready for resumption of work following inspections by Infrastructure Planning and Facilities (IPF) and Environmental Health and Safety (EHS). The bathrooms and common areas will be cleaned on a regular basis by the janitorial staff in addition to measures described below upon return to work.
2. At no time is research with active virus causing COVID-19 conducted in the MPS Building.
3. The risk of going back to work in the lab with other colleagues includes contracting the virus causing COVID-19 from another contagious person by aerosol or contaminated surfaces. Keep in mind, a contagious person may not have symptoms.
4. Stay at home if you have any symptoms of illness, elevated temperature or other COVID-19 symptoms as described in the [MSU Coronavirus \(COVID-19\) Workplace Health Screening Form \(https://go.msu.edu/covscreen\)](https://go.msu.edu/covscreen) or any symptoms that are out of the ordinary.
5. Should someone in your research/building group have symptoms or test positive for COVID-19, immediately notify your Chair/Unit Administrator, University Physician and EHS. The laboratory will need to be properly cleaned and disinfected following the guidance of EHS. Personnel who are ill are required to stay at home. **6/8/2020, PLEASE SEE ADDENDUM AT THE END OF THIS DOCUMENT FOR DETAILS.**
6. Should someone in your research/building group test positive for COVID-19, send all personnel home and contact the University Physician to report as much information as known at the time. **6/8/2020, PLEASE SEE ADDENDUM AT THE END OF THIS DOCUMENT FOR DETAILS.**
7. Precautions need to be added on top of existing lab safety protocols and the new precautions do not diminish the existing lab safety procedures.
8. Training on new policies and procedures is required for all those returning to work. Building access will not be granted until training has been documented. Before researchers can return to work, all personnel must receive training at all three levels:
 - a. Everyone must acknowledge reading this document and attend a mandatory virtual town hall meeting hosted by the MPS Building Reactivation Committee. This meeting will be specific to the MPS Building and will be held in addition to any scheduled Departmental or Facility meetings. These requirements will be documented for each person to ensure compliance.
 - b. All individuals must obtain lab specific training. PIs must also have their lab-specific research reactivation plans approved by their Chair, their Associate Dean for Research, and the MSU Office of Regulatory Affairs (ORA).
 - c. All individuals working in the building must complete the COVID-19 Safe Return to Laboratory Work online training (<https://bit.ly/EHS-4950-SCO>).
9. This reactivation protocol may reverse if problems are identified that necessitate closing down research activities and returning to minimal basic operations. This could include a lack of required personal protective equipment (PPE) to maintain lab safety, a potential local spread of COVID-19 in labs housed in this building, or the University decision to take precautions to mitigate a potential resurgence of COVID-19. Research activities will be ramped down in these events following the protocols available from EHS (i.e., a spreadsheet template completed in March).
10. This protocol will remain binding until the MSU ORA or the Office of the Senior Vice President for Research and Innovation (OSVPRI) allow for, or require modifications. Changes to this protocol will be widely distributed to all building occupants and their supervisors by email, postings will be made at the entrances of the building, and copies of documents will be made available on the

relevant departmental websites (Plant Biology, Plant Soil & Microbial Sciences, Biochemistry & Molecular Biology, Horticulture) and the MSU-DOE Plant Research Laboratory.

II. Building preparation and access:

1. **Building Preparation:** The building has been monitored daily by essential research personnel and issues during the shutdown have been resolved by Robert Bryan (MPS Building Manager) in collaboration with IPF as they arose. As necessary, the building will be prepared by IPF, Facilities Planning & Space Management (FPSM) and EHS to ensure the building is clean and functioning appropriately. Water and HVAC systems will be checked, as well as any fume hoods (according to maintenance schedule). Biosafety cabinets and autoclaves will be checked by EHS and will be recertified as needed. The MPS Building is currently locked at all times and access is controlled by key card.
2. **Building Access:** Access will be limited to only those faculty, staff and students who have been trained in and acknowledge the policies and procedures in this document. Access and presence in the building will be monitored using the [MPS Building online self-check-in/check-out system](#) which documents personnel name, department and lab association (PI) and automatically logs time in and out in a Google Form that can be viewed by the MPS Building Manager, Chairs/Directors and the PIs. It also has a required checkmark acknowledging this document. Access may be revoked by the Chair or Director for anyone found in deliberate violation of policies and procedures. 6/5/2020, THIS POLICY IS UPDATED, PLEASE SEE ADDENDUM AT THE END OF THIS DOCUMENT.
3. **Non-MPS located collaborators:** Periodically, MSU collaborators of non-MPS Building occupants may require access to MPS laboratory spaces to access equipment or provide or obtain research samples. In most cases, these MSU collaborators have already been permitted MPS Building access but visitation to MPS labs during this initial phase of reactivation should only occur if it is essential. Prior approval and arrangements should be made with the relevant PI to ensure that building capacity and social distancing policies are maintained. Any MSU collaborator who enters the MPS Building must have read and acknowledged this document and adhere to the policies and procedures herein, including completing the [MPS Building online self-check-in/check-out system](#). 6/8/2020, THIS POLICY IS UPDATED, PLEASE SEE ADDENDUM AT THE END OF THIS DOCUMENT.
4. **Deliveries:** No deliveries are made directly to the MPS Building. All deliveries are made to the departmental offices or loading docks in the Plant Biology Building, The Plant & Soil Sciences Building and the Biochemistry Building. Procedures are already in place at these locations to receive deliveries, and assigned personnel from these units will contact MPS Building occupants to retrieve deliveries from designated locations as needed.
5. **Outside Contractors:** Visits by MSU approved outside contractors to repair and service equipment will be arranged by the MPS Building Manager and will be coordinated with building occupants so that social distancing guidelines of a minimum of 6 feet can be maintained. The building manager will accompany outside contractors to the designated work area. Outside contractors will be instructed about the safety protocol, including hand sanitizing and wearing masks, and provided with a mask and sanitizer, as necessary.
6. **Sanitation Plan for Shared Rooms and Common Areas:** Cleaning and disinfection plans for common shared areas are described in **Appendix 1**. Common touchpoints will be disinfected using 70% ethanol two times per shift. Cleaning logs noting dates of cleaning and responsible individuals will be maintained by each zone on the floor.

III. Base Personal Protective Equipment (PPE) and Sanitizing Measures

Protection of personnel begins at the entrances to the building:

1. Frequent hand washing and avoiding touching one's face is recommended by the US Center for Disease Control ([CDC](#)) to avoid infection and MSU follows these recommendations. Hand sanitizer stations are available close to all entrances of the MPS building. Hands must be cleaned upon entering the building using this sanitizer and washed first thing when entering the lab space using soap and water for 20 s. Hands should be washed at regular intervals during the work period to minimize potential infection.
2. Face masks that cover the mouth and nose must be worn in buildings in common areas and shared spaces of the laboratories. To preserve medical supplies, cloth masks are preferable to disposable, medical grade face masks. If a person is in their office alone, the mask can be removed if the door is closed. We are requiring that departments or your PI provide you with a face mask. Alternatively, you are welcome to utilize your own supply of face masks if you prefer.
3. As usual, it is highly recommended that safety glasses (or your own glasses) should be worn in labs in accordance with the EHS lab safety procedures. Extra safety glasses will be available and must not be shared with other personnel. All lab safety glasses should be cleaned with warm water and dish soap at the end of your work shift.
4. Cell phones must be cleaned (wiping it using a 70% alcohol solution) when entering and leaving the lab. Alternatively, phones can be bagged in Ziplock bags, which should be discarded when leaving the building.

IV. Training and Sanitation Team:

1. Before researchers can return to work at the MPS Building, all personnel are required to receive training at all three levels (MPS Building, individual lab, EHS) as described above in **Section I.8**. Representatives of the MPS Building Reactivation Committee will provide training and information on the procedures and changes to this protocol described in this document.
2. Members of the MPS Building Reactivation Committee, together with PIs, lab managers, and other research personnel will develop sanitation protocols for laboratories and provide training and guidelines for all research personnel on how to implement these procedures. All research personnel are expected to follow the laboratory cleaning and sanitation procedures.
3. Personnel in the MSU Plant Growth Chamber Facility will co-ordinate cleaning and sanitation of common areas in the MPS basement as a part of their facility, which is comprised mainly of plant growth rooms and chambers as well as plant growth preparation and harvesting rooms.

V. Preparation for lab work:

1. To prevent new virus infections, **awareness is key**
 - a. Always maintain physical distances of 6 ft or more between co-workers
 - b. Maintain physical distances between all people coming to and from work
 - c. Monitor your health (temperature, etc.)
 - d. Wear relevant PPE at all times (See above)
 - e. Each person must enter the building using their own key card and online self-check-in/check-out system. This provides a daily record of people in the building and individual labs so that it can be used for contact tracing for you and others if necessary.
2. File the **MSU Coronavirus (COVID-19) Workplace Health Screening Form** (<https://go.msu.edu/covscreen>) before going to the building.
3. Minimize the transport of items between work and home.
4. Leave most personal items at home (including headphones, ear buds, etc.)—transport only essential items between work and home (e.g., water, key card, wallet, phone). Make sure you have all your belongings in a bag that you can wear over your shoulder (i.e. so that you don't have

to carry anything in your hands since you will need to sanitize your hands upon entering the building).

5. Avoid bringing your computer to work. Similarly, if your computer is already at work, avoid bringing it home. If you need to bring it, disinfect it. Similarly, disinfect a shared computer in the lab before and after use by wiping it down with a 70% alcohol solution.

VI. General Practices

1. No eating is allowed anywhere in the building until we can exit phase 1 of this plan and return to more normal working practices. You can eat if necessary, in your car or the garden if social distancing is maintained. The shared lunchrooms, microwaves, food fridges, etc., will not be available for storage, reheating or eating. Drinking is allowed outside the laboratories using water that you bring with you from home. Drinking fountains in the building are closed, including the refill stations. **7/24/2020, THE FOOD POLICY IS UPDATED, PLEASE SEE ADDENDUM AT THE END OF THIS DOCUMENT.**
2. Stay at home if you have any symptoms of illness, elevated temperature or other COVID-19 symptoms as described in the **MSU Coronavirus (COVID-19) Workplace Health Screening Form (<https://go.msu.edu/covscreen>)**, or any symptoms that are out of the ordinary.
3. Upon entrance into the building start wearing a mask. Sanitize your hands at the entrance and wash them with soap and water for 20 s upon entering the laboratory space.
4. Wear gloves only at times you would usually wear gloves in the lab to protect your experiment (e.g. RNA work), or yourself during work with isotopes or with hazardous chemicals. Wear nitrile gloves before using cryoprotection gloves and autoclave gloves. Dispose of the nitrile gloves in the trash in the lab as soon as you are done. MSU EHS has determined wearing gloves in common spaces may increase the risk of spreading the virus. It is best to follow the frequent hand washing guidelines for 20 s with soap and warm water and avoiding touching one's face as recommended by the [CDC](#).
5. Follow the guidelines developed by the MSU Plant Growth Chamber Facility and the RTSF (including Research Greenhouse Complex) when working at their facilities or in the basement of the MPS Building (plant growth rooms and preparation rooms).
6. Only one person is allowed in the bathroom at any one time. Occupancy signs ("vacant"/"occupied") will be installed on entrance doors to bathrooms. Wash your hands with soap and warm water for 20 s before leaving the bathroom. Use a paper towel to open the door to exit the bathroom and return the door sign to "vacant".
7. At 8 am, 1 pm and 6 pm, designated persons from each lab group will walk through the laboratory spaces in the building and disinfect common touch surfaces such as door handles, into and out of labs, faucets and light switches, etc. using a CDC-approved disinfectant solution (70% ethanol).
8. Cleaning and sanitation are everyone's responsibility and not the sole responsibility of a single individual. Each lab member will be allocated a spray bottle for 70% ethanol that should be used to wipe down the equipment and surfaces they will / have touched before and after each use.
9. Custodial services will be responsible for cleaning common areas and high touch areas in the building, including door handles, handrails, light switches, elevator buttons, and bathrooms.

VII. General Laboratory Practices

1. Minimize time in the building

- a. Any work that can be done at home (data analysis, computational work) must be done at home.
- b. Only go to the building if you are doing work that **MUST** be done at the laboratory.
- c. Avoid in person meetings and use Zoom or Teams. Conference rooms will be closed.

- d. If you finish your tasks before the end of the shift—go home.
- e. If your task for the day is minor, ask a colleague who needs to go to the building to complete the task for you (be reasonable).
- f. Be good teammates and help each other out by completing simple tasks for others so they don't have to come in.
- g. Do not spend time socializing in the building.

2. *Maximize outcomes, starting with preparation*

- a. Plan your experiments carefully. Have a clear plan for the day (week) and write up protocols before coming to the building.
- b. Consider your capability, time scale, and resource availability.
- c. Start gradually processing samples (e.g. sowing plants, initiating cultures, processing samples you had already stored, analyzing samples at RTSF, etc.).
- d. As much as possible, store data on cloud servers to access them later at home.
- e. Minimize bringing in/out notes, protocols or other paper items from home. Leave them in the lab if possible.
- f. If you bring notes, protocols or other paper items from home, leave them in the lab if possible—minimize what you bring to and from the lab.

3. *Time shifts and Teams*

- a. Social distancing requires that we limit the number of people working in individual laboratories and common spaces until social distancing is no longer required.
- b. Each PI is responsible for setting up an online schedule for each lab, team, or group where people sign up to work in specific lab spaces during specific days or shifts. The web-based general attendance log for the building will also serve as an attendance log for the lab.
- c. The number of people per space should be determined by each lab PI and should be capped at a small number per laboratory space (following distancing guidelines using a minimum distance of 6 feet to estimate space required, e.g., offsetting bench work stations across benches, one person per office).
- d. If you work by yourself, you must follow the [MSU Work Alone Policy](#). Make sure somebody knows when you arrive and leave. Use a buddy system to inform someone that you are working alone and check in with them periodically while you are at work.
- e. The development of shifts for individual labs is the responsibility of each PI in consultation with their research team. However, the total number of people per research group on a floor at any one time must not exceed the numbers outlined in the appendices of this document. Start and finish your shift on time. If arriving earlier than planned, stay outside the building (e.g. in your car) and wait until the time to start your shift. If you are delayed in completing experiments, make sure you text message the person who is scheduled next to work in the lab.
- f. Minimize travel within the building—try to stay in your lab space as much as possible.

4. *Work in the lab and office space*

- a. Frequently wash your hands with soap and warm water for 20 s. Avoid touching your face.
- b. Always wear a mask, and glasses are highly recommended in labs following EHS guidelines—label the mask with your name and take it home with you.
- c. Leave glasses and mask on when using all equipment including microscopes.
- d. Avoid the use of the elevators unless necessary (e.g. to transport items between floors, if physically necessary). Do not share elevators to maintain the 6 feet distancing rule.

- e. At the end of each day, trash bags should be tied off and placed in the hallway outside each lab for easy removal by custodial staff.

5. *Laboratory equipment*

- a. Disinfect the surface of lab equipment, benches and office desks before and after the shift using a CDC-approved disinfectant solution (wipe down with a 70% alcohol solution; 2% bleach for countertops (5 tbsp/gal).
- b. Disinfect all handheld devices (e.g. pens, pencils, pipettors using a 70% alcohol solution).
- c. Each person in the lab is responsible for disinfection.

VIII. *Compliance and Compliance Monitoring:*

- 1. Questions about this document can be directed to any member of the Molecular Plant Sciences Building Reactivation Committee.
- 2. The PIs are responsible for compliance with the rules in this document. To ensure compliance, the Chair/Director of each department will consult with the PIs under their immediate supervision on a regular basis to review the sign in/out checklist for each group and conduct periodic laboratory visits. Reports of the sign in/out checklist will be accessible by each PI for their review. However, we are all in this together and need to work together. If you see non-compliance, say something to the person. If you cannot resolve the issue or the situation is unclear, talk to your supervisor, or someone on the building committee to get assistance.

Appendix 1: Sanitation Plan for Shared Rooms, Common Areas:

2nd Floor

Zone 1: Public areas outside secured lab area and office space (supplies provided by Bob Bryan; Shiu lab in charge of cleaning)

- Restrooms (2010, 2020, 2030): door handles (inside and out)
- Personal Health Room (2000): door handles (inside and out)
- Stairwell door, 2nd floor (inside and out)
- Stairwell rail, 1st floor to 2nd floor
- Elevator buttons on wall, 2nd floor
- Entrances to 2100, 2200 and 2125: door handles (inside and out)

Zone 2: 2200 shared office space (Edger lab in charge of supplies and cleaning)

- Entrance to stairwell: door handles (inside and out)
- Light switches
- Stairwell rail, 1st floor to 2nd floor
- Kitchen: faucet lever and paper towel dispenser

Zone 3: 2100 shared lab space (Douches lab in charge of supplies and cleaning)

- Light switches (West and East ends)
- Door to kitchen: door handles (inside and out)
- Each lab is responsible for their own sliding door entrances to minimize movement between lab spaces.

Zone 4: 2110, 2120, 2130, 2145 (Douches lab in charge of supplies and cleaning)

- 2110 Fume hoods
 - Light switches
- 2120 Cold room
 - Door handles (inside and out)
 - Light switch
- 2130 Storage/growth chambers
 - Light switches
 - Cabinet and growth chamber handles
- 2145 Gel room
 - Light switch
 - Door handles (inside and out)

Zone 5: 2105, 2125, 2140, 2150, 2155/2160 (DellaPenna lab in charge of supplies and cleaning)

- 2105 -80 freezers/centrifuge room
 - light switches
 - centrifuge controls
- 2125 Autoclave Dishwasher room
 - Sink: faucet levers
 - Dishwasher: door handles and controls
 - Autoclave: door handle and controls
 - Light switches
 - Door handles (inside and out)
- 2140 Media prep/tissue culture room
 - Light switches

- Door handles (inside and out)
- 2150 Nanodrop/analytical balances
 - Light switches
 - Door handles (inside and out)
- 2155/2160 Fume hoods/HPLC
 - Light switches

Zone 6: 2170, 2175 (Edger lab in charge of supplies and cleaning)

- 2170 Cold room
 - Door handles (inside and out)
 - Light switches
- 2175 Tissue culture room
 - Door handles (inside and out)
 - Light switches

Zone 7: 2185, 2195 (Shiu lab in charge of supplies and cleaning)

- 2185 Storage/growth chambers
 - Light switches
 - Cabinet and growth chamber handles
- 2195 Fume hoods/electrophoresis
 - Door handles (inside and out)
 - Light switches

3rd Floor

Zone 1: Public areas outside secured lab area and office space (supplies provided by Bob Bryan; Hamberger lab in charge of cleaning)

- Restrooms (3010, 3020, 3030): door handles (inside and out)
- Personal Health Room (3000): door handles (inside and out)
- Stairwell door, 3rd floor (inside and out)
- Stairwell rail, 2nd floor to 3rd floor
- Elevator buttons on wall, 3rd floor
- Entrances to 3100, 3200 and 3125: door handles (inside and out)

Zone 2: 3200 shared office space (Barry, Bonito, Farre, Hamberger and Takahashi labs in charge of supplies and cleaning)

- Entrance to stairwell: door handles (inside and out)
- Light switches
- Stairwell rail, 2nd floor to 3rd floor
- Kitchen: faucet lever and paper towel dispenser

Zone 3: 3100 shared lab space (Barry, Bonito, Farre, Hamberger and Takahashi labs in charge of supplies and cleaning)

- Light switches (West and East ends)
- Door to kitchen: door handles (inside and out)
- Each lab is responsible for their own sliding door entrances to minimize movement between lab spaces.

Zone 4: 3105, 3110, 3125, 3130, 3140 (Barry lab in charge of supplies and cleaning)

- 3105 Freezer room
 - light switches

- freezer door handles
- 3110 Fume hood alcove
 - Light switches
- 3125 Autoclave/Dishwasher room
 - Sink: faucet levers
 - Dishwasher: door handles and controls
 - Autoclave: door handle and controls
 - Light switches
 - Door handles (inside and out)
- 3130 Equipment alcove
 - Light switches
 - Cabinet handles
- 3140 Culture room
 - Door handles (inside and out)
 - Light switches
 - Cabinet and growth chamber handles

Zone 5: 3120, 3145, 3150 (Farre lab in charge of supplies and cleaning)

- 3120 Cold room
 - Door handles (inside and out)
 - Light switch
- 3145 Gel room
 - Light switch
 - Door handles (inside and out)
- 3150 Dark plant growth room
 - Light switch
 - Door handles (inside and out)

Zone 6: 3115, 3160, 3170 (Hamberger lab in charge of supplies and cleaning)

- 3115 Algae culture room
 - Door handles (inside and out)
 - Light switches
- 3160 Fume hood alcove
 - Light switches
- 3170 Cold room
 - Door handles (inside and out)
 - Light switch

Zone 7: 3155, 3165, 3175 (Takahashi lab in charge of supplies and cleaning)

- 3155 Fume hood alcove
 - Light switches
- 3165 Microscope room
 - Door handles (inside and out)
 - Light switch
- 3175 Culture room
 - Door handles (inside and out)
 - Light switches
 - Cabinet and growth chamber handles

Zone 8: 3185, 3190, 3195 (Bonito lab in charge of supplies and cleaning)

- 3185 Equipment alcove
 - Light switches
 - Cabinet handles
- 3190 Culture room
 - Light switches
 - Cabinet and growth chamber handles
- 3195 Fume hood alcove
 - Door handles (inside and out)
 - Light switches

4th Floor

Zone 1: Public areas outside secured lab area and office space (supplies provided by Bob Bryan; He lab in charge of cleaning)

- Restrooms (4010, 4020, 4030): door handles (inside and out)
- Personal Health Room (4000): door handles (inside and out)
- Stairwell door, 4nd floor (inside and out)
- Stairwell rail, 3rd floor to 4th floor
- Elevator buttons on wall, 4th floor
- Entrances to 4100, 4200 and 4125: door handles (inside and out)

Zone 2: 4200 shared office space (Howe lab in charge of supplies and cleaning)

- Entrance to stairwell: door handles (inside and out)
- Light switches
- Stairwell rail, 3rd floor to 4th floor
- Kitchen: faucet lever and paper towel dispenser

Zone 3: 4100 shared lab space (Day lab in charge of supplies and cleaning)

- Light switches (West and East ends)
- Door to kitchen: door handles (inside and out)
- Each lab is responsible for their own sliding door entrances to minimize movement between lab spaces.

Zone 4: 4105, 4110, 4120, 4130, 4140 (He lab in charge of supplies and cleaning)

- 4110 Fume hoods
 - Light switches
- 4120 Cold room
 - Door handles (inside and out)
 - Light switch
- 4130 Storage/growth chambers
 - Light switches
 - Cabinet and growth chamber handles
- 4140 Media Prep/Tissue Culture Room
 - Light switch
 - Door handles (inside and out)
- 4105 LER room
 - light switches
 - centrifuge controls

Zone 5: 4125, 4145, 4150, 4155/4160 (Day/Thomashow lab in charge of supplies and cleaning)

- 4125 Autoclave Dishwasher room
 - Sink: faucet levers
 - Dishwasher: door handles and controls
 - Autoclave: door handle and controls
 - Light switches
 - Door handles (inside and out)
- 4145 Plate Reader/Microscopy Room
 - Light switches
 - Door handles (inside and out)
- 4150 Centrifuges/Storage Room
 - Light switches
 - Door handles (inside and out)
- 4155/4160 Fume hoods/Gel Stations
 - Light switches

Zone 6: 4170, 4175 (Howe/Day lab in charge of supplies and cleaning)

- 4170 Cold room
 - Door handles (inside and out)
 - Light switches
- 4175 Tissue culture room
 - Door handles (inside and out)
 - Light switches

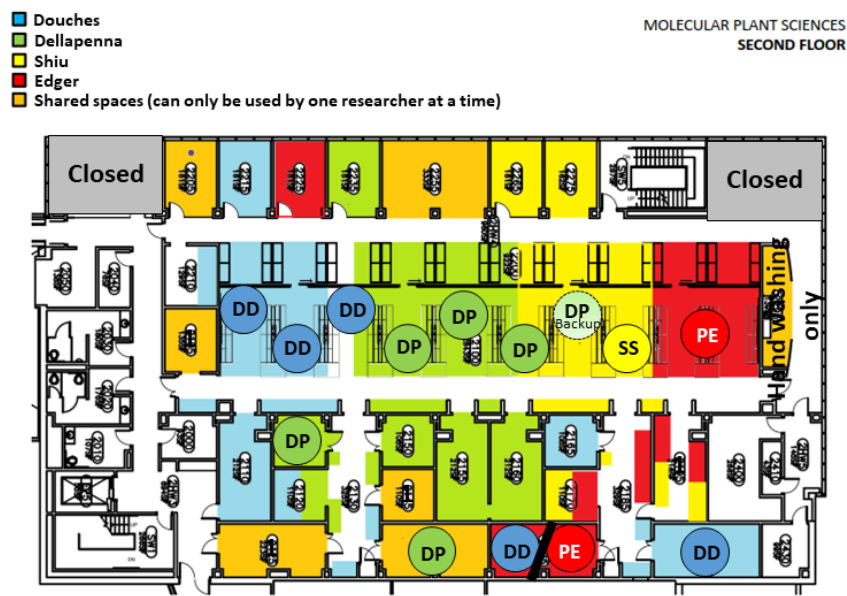
Zone 7: 4185, 4190, 4195 (Howe lab in charge of supplies and cleaning)

- 4185 Storage/growth chambers
 - Light switches
 - Cabinet and growth chamber handles
- 4190 Media Prep/cell culture room
 - Door handles (inside and out)
 - Light switches
- 4195 Fume hoods/electrophoresis
 - Door handles (inside and out)
 - Light switches

Appendix 2: MPS 2nd Floor Re-opening Policies and Procedures

Dean DellaPenna (BMB), David Douches (PSM), Patrick Edger (HRT), Shin-Han Shiu (PLB)

- To ensure social distancing (at least 6 ft of distance between people), we will limit the total number of people present in the laboratory and common space on this floor to 13. See diagram below.
- There will be one person between lab benches in the main lab space (9 total) and one person per individual small lab space (4 total). There will be a limit of one person per office bay. The office spaces should not be used to complete work that can be done at home but it is ok to use office spaces while waiting in between experimental steps.
- There will be a limit of one person in each room with shared equipment (e.g., autoclave/dishwasher room, media prep room). In lieu of a sign-up sheet, users will communicate with each other to coordinate use.
- Signs indicating the occupancy limit will be posted in each room.
- The second floor conference room and lunch room will not be available for use. The kitchen will only be used for washing hands.
- Each PI will be responsible for setting up a weekly schedule for each lab.
- All lab personnel should try to arrive at the lab on time and leave before their shift ends. If there are delays, these should be communicated with the rest of the lab group via text.
- Minimize travel between the floors within the building. Stay in the lab or office space on the 2nd floor, or in the designated growth chamber and greenhouse facility space, unless otherwise necessary for specific purposes. Get permission from the PI before you go to other floors and make sure to enter specific room numbers in an appropriate laboratory calendar and the **departmental or unit check-in/check-out systems**.
- Each lab will ensure that common touch surfaces in the lab, including door knobs, light switches, and faucets are sanitized at regular intervals (i.e., beginning and end of each shift).
- Everyone is responsible for sanitizing shared equipment with 70% ethanol before and after use.



Appendix 3: MPS 3rd Floor Re-opening Policies and Procedures

Cornelius Barry (HRT), Gregory Bonito (PSM), Eva Farre (PLB), Björn Hamberger (BMB), Hideki Takahashi (BMB)

- To ensure social distancing (at least 6 ft of distance between people), we will limit the total number of people present in the laboratory and common space at any one time on this floor to 12 (Barry 2, Bonito 3, Farre 2, Hamberger 3, Takahashi 2). See Diagram below.
- There will be a limit of one person per office bay. The office spaces should not be used to complete work that can be done at home but it is ok to use office spaces while waiting in between experimental steps.
- There will be a limit of one person in each room with shared equipment (e.g., autoclave/dishwasher room, media prep room).
- Signs indicating the occupancy limit will be posted in each room.
- The third-floor conference room and lunchroom will not be available for use. The kitchen will only be used for washing hands.
- Each PI will be responsible for setting up a weekly schedule for each lab and posting the schedule on a shared 3rd floor Google Calendar.
- Each lab group will set up a text-tree or lab Slack group to communicate with each other when personnel arrive and leave the building.
- All lab personnel should try to arrive at the lab on time and leave before their shift ends. If there are delays, these should be communicated with the rest of the lab group via text.
- Minimize travel between the floors within the building. Stay in the lab or office space on the 3rd floor, or in the designated growth chamber and greenhouse facility space, unless otherwise necessary for specific purposes. Get permission from the PI before you go to other floors and make sure to enter specific room numbers in an appropriate laboratory calendar and the **departmental or unit check-in/check-out systems**.
- Each lab will ensure that common touch surfaces in the lab, including doorknobs, light switches, and faucets are sanitized at regular intervals (i.e., beginning and end of each shift).
- Everyone is responsible for sanitizing shared equipment with 70% ethanol before and after use.



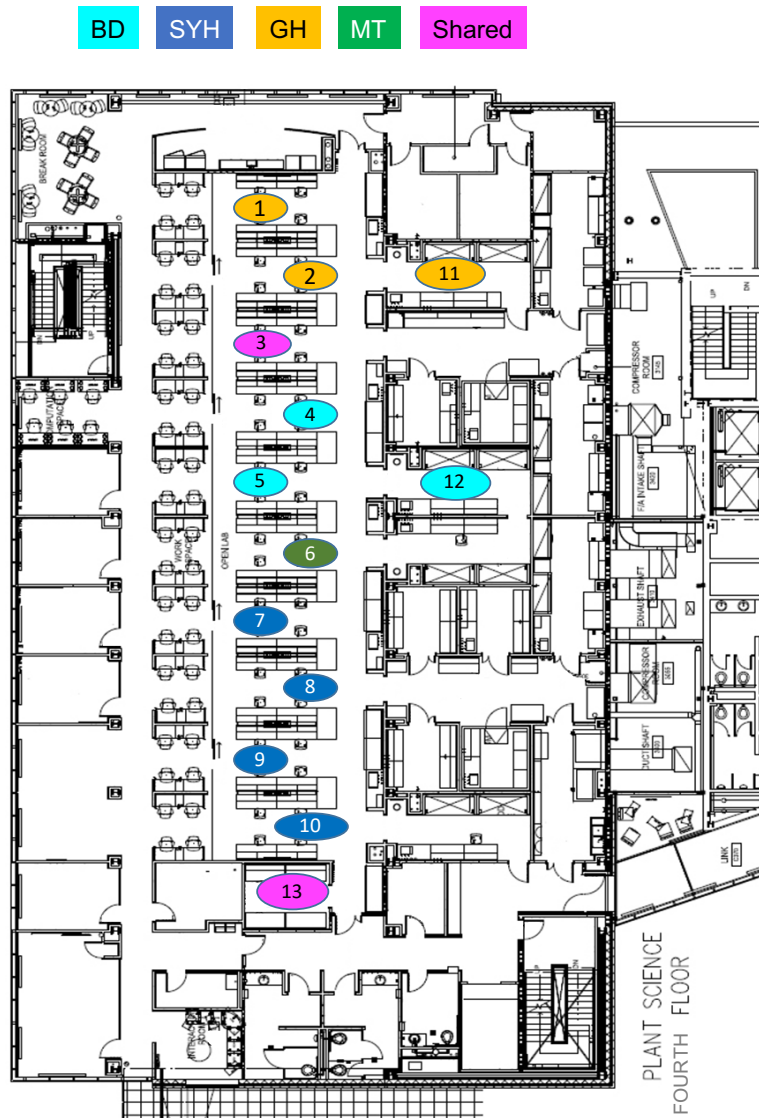
Appendix 4: MPS 4th Floor Re-opening Policies and Procedures

Brad Day (PSMS), Sheng Yang He (PLB/PRL/PSMS/MMG), Gregg Howe (BMB/PRL), Mike Thomashow (PSMS/PRL)

These four 4th floor groups conduct research on plants, plant-associated microbes, and insects. The 4th floor groups will follow all MPS Return-to-Work Policies and Procedures outlined above, plus the following policies/procedures that are tailored to 4th floor space and research needs.

- a. To ensure social distancing (at least 6 ft of distance between people), we will limit the total number of people present in the laboratory and common space on this floor to 13 (see map below).
- b. There will be one person between lab benches in the main lab space (10 total) and one person per individual small lab space (3 total). There will be a limit of one person per office bay. The office spaces should not be used to complete work that can be done at home.
- c. To prevent overlap in lab spaces, each researcher will have access to the 4th floor [LabArchives Scheduler](#). This will allow each researcher to book a lab space ahead of time. If there is a conflict regarding the usage of equipment, each shift should establish a rule for the use of such equipment, *e.g.*, 2 hours maximum per person per day for each piece of equipment.
- d. Major equipment shared between labs will utilize an electronic reservation system. Access to this system for individuals outside of the lab must be requested through PIs (or their lab members) responsible for the specific lab equipment.
- e. No sharing of non-instrument items previously shared between labs (*e.g.* autoclave bins, multichannel pipettes, consumable items, enzymes, chemicals, etc.) until Phase I is complete. Only use items designated or owned by each lab. All personal lab reagents should be relegated to the space assigned to each researcher's own bench and bench shelving.
- f. All lab personnel should arrive at the lab on time and leave before their shift ends. If there are delays, these should be communicated with the rest of the lab group. In between experimental steps during assigned shifts, researchers are to wait at a biologically safe space (*e.g.*, their lab bench) to reduce lab congestion.
- g. Office space - If one researcher's office space is within 6 feet of another person on the same shift, coordination will occur between researchers ahead of time so that two researchers are not occupying the same space at the same time. Researchers can also utilize other lab spaces (*e.g.*, living room, kitchen area, lab benches and computer rooms) to make social distancing possible. If someone is in a space that another researcher needs to get into, coordination should occur to allow sequential usage of the space.
- h. The 4th floor conference room will be closed, and so will the corner room in front of the conference room. The 4th floor Personal Health Room will be available for use for those individuals who need it, but all relevant surfaces will be disinfected after each use, and each use is limited to 20 minutes.

- i. The main 4th floor door close to the office spaces will be designated as “Entrance Only”. All pathways within the lab are stay clear, including those leading to individual lab benches, in order to keep social distancing.



Checklist for Return to Work Post COVID-19 for the Molecular Plant Sciences Building

Prior to returning to work:

- ☐ Complete the mandatory training for Return to Work Post COVID-19.
- ☐ Obtain mask(s) that covers your mouth and nose. Masks will be provided, or you can choose to bring your own mask. Contact your PI to obtain a supply of washable masks.
- ☐ Obtain appropriate safety glasses if you do not have your own glasses. You can use your existing safety glasses. Contact your PI or Lab Manager to obtain safety glasses.
- ☐ File the MSU Coronavirus (COVID-19) Workplace Health Screening Form (<https://go.msu.edu/covscreen>) before going to the building. If you have any symptoms or are feeling ill, stay at home and report these symptoms to your supervisor and lab group.
- ☐ No eating will be allowed in the building. Plan appropriately by eating before arriving or eating in your car or outside the building while maintaining social distancing. **7/24/2020, THE FOOD POLICY IS UPDATED, PLEASE SEE ADDENDUM AT THE END OF THIS DOCUMENT.**
- ☐ Bring your personal water bottle. The water fountains and filling stations will not be available.
- ☐ Minimize the transport of personal items between home and work.

Upon entering the building:

- ☐ Each person must enter the building using their own key card.
- ☐ Always maintain physical distances of 6 ft or more between co-workers.
- ☐ Maintain minimal physical distances between all people coming to and from work.
- ☐ Wear a mask that covers your mouth and nose in the building at all times.
- ☐ Safety glasses (or your own glasses) are recommended in the building.
- ☐ Sanitize your hands with the sanitizer upon entering the building.
- ☐ Wash your hands upon entering your laboratory and avoiding touching your face. Wash your hands frequently while you are in the building.
- ☐ Place all personal items in an office area where they will not be exposed to other workers.
- ☐ Sign into the **departmental or unit check-in/check-out systems** to record your presence in the laboratory.
- ☐ Disinfect common areas and shared equipment in your laboratory (consult your laboratory protocol).

Bathrooms:

- ☐ Check occupancy of the bathroom before entering to maintain social distancing.
- ☐ Wash your hands upon entering and leaving the bathroom.
- ☐ Open the door of the bathroom with a clean paper towel and dispose of it immediately after entering or leaving the bathroom.

At the end of your shift

- ☐ Disinfect your work surface of your work area.
- ☐ Disinfect your computer.
- ☐ Disinfect common or shared equipment in your laboratory (consult your laboratory protocol).
- ☐ Participate in building disinfecting shift if appropriate (consult your individual floor training team).
- ☐ Sign out on the **departmental or unit check-in/check-out systems** to record your exit from the laboratory.
- ☐ Sanitize your hands at the exit and leave the building.

For PIs:

- ☐ Determine the number of people that can safely occupy the laboratory or office following distancing guidelines. Use a minimum area of a 6-foot radius to estimate number of people allowed in each space (e.g., one person per bench bay, offsetting bench workstations across benches, one person per office).
- ☐ All employees authorized to resume work must be given written permission to do so (this can be done via email).
- ☐ Set up a weekly on-line schedule for each lab, team or group where people sign up to work in specific lab spaces during specific days or shifts to comply with safe occupancy levels established in the previous calculation.
- ☐ Remind all lab personnel via email and during lab meetings to use the MPS self-check-in/out system when they enter and exit the building.
- ☐ Establish a system for disinfecting common work areas and equipment.
- ☐ Establish protocols for situations specific to your group. For example, include procedures for providing access to essential maintenance personnel or researchers from other laboratories that need to access shared equipment in your laboratory.
- ☐ Create a timely plan to address any overdue preventive maintenance, waste disposal, safety re-training, software updates, etc., resulting from the switch to essential operations.
- ☐ Ensure that your group continues to comply with procedures described in this document and your own laboratory procedures.

6/8/2020

Addendum to the Molecular Plant Sciences post COVID-19 return to work plan

This addendum provides an update to the original plan that was approved by MSUs Office of Regulatory Affairs on 6-3-2020.

General Building Plan

I. The guiding principles of these Policies and Procedures include the following:

- 5) Should someone in your research/building group have symptoms or test positive for COVID-19, immediately **notify all of the PIs on your floor and all five chairs and directors associated with the building:** PRL Director, Christoph Benning benning@msu.edu; PLB Chair, Danny Schnell schnelld@msu.edu; BMB Chair, Erich Grotewold grotewol@msu.edu; Horticulture Chair, Vance Baird bairdw@msu.edu; PSM Chair, Brian Horgan horganb@msu.edu. The Chairs will notify the University Physician and EHS. The laboratory will need to be properly cleaned and disinfected following the guidance of EHS. Personnel who are ill are required to stay at home.
- 6) Should someone in your research/building group test positive for COVID-19, send all personnel home and contact **all five chairs and directors associated with the building:** PRL Director, Christoph Benning benning@msu.edu; PLB Chair, Danny Schnell schnelld@msu.edu; BMB Chair, Erich Grotewold grotewol@msu.edu; Horticulture Chair, Vance Baird bairdw@msu.edu; PSM Chair, Brian Horgan horganb@msu.edu. The Chairs will notify the University Physician to report as much information as known at the time.

II. Building preparation and access:

- 2) **Building Access:** Access will be limited to only those faculty, staff and students who have been trained in and acknowledge the policies and procedures in this document. Access and presence in the building will be monitored using **departmental or unit check-in/check-out systems as follows:**
 - a) PIs and their lab members who are affiliated with the MSU-DOE Plant Research Laboratory will utilize the form found at <https://prl.natsci.msu.edu/prl-sign-in-out/>
 - b) PIs and their lab members who are affiliated with the Department of Plant Biology will utilize the form found at <https://plantbiology.natsci.msu.edu/coronavirus/covid-19-sign-in-out-sheet/>
 - c) PIs and their lab members who are affiliated with the Department of Biochemistry and Molecular Biology will utilize the form found at https://forms.office.com/Pages/ResponsePage.aspx?id=MHEXli9k2UGSEXQjetVofb5x_acZoV NKhG-MWlpqoK1UNVINNDNKRIFXRzFPUUJXUDM2TERES0E1TC4u
 - d) PIs and their lab members who are affiliated with the Department of Horticulture and the Department of Plant, Soil & Microbial Sciences will utilize the form found at <https://forms.gle/1UZ5ds37bjS9JKZK6>

Building access may be revoked by the Chair or Director for anyone found in deliberate violation of policies and procedures.

- 3) **Non-MPS located collaborators:** Periodically, MSU collaborators of non-MPS Building occupants may require access to MPS laboratory spaces to access equipment or provide or obtain research samples. In most cases, these MSU collaborators have already been permitted MPS Building access but visitation to MPS labs during this initial phase of reactivation should only occur if it is essential. Prior approval and arrangements should be made with the relevant PI to ensure that

building capacity and social distancing policies are maintained. Any MSU collaborator who enters the MPS Building must have read and acknowledged this document and adhere to the policies and procedures herein, including completing the relevant departmental or unit check-in/check-out systems outlined above in point 5. The visitor must complete the form associated with the home department of unit of the MPS PI's lab they are visiting.

7/24/2020

Addendum to the Molecular Plant Sciences post COVID-19 return to work plan

This addendum provides an update to the original plan that was approved by MSUs Office of Regulatory Affairs on 6-9-2020.

Food and Drink Policy

Based on the changing Executive Orders and needs of the MSU community, food consumption is now allowed in campus buildings in posted designated areas. We will work with employees who need food available for medical reasons. However, food consumption may pose an increased risk of catching COVID-19 because it requires mask removal. Therefore, it is important to observe social distancing, follow disinfecting protocols, and spend minimal time in the designated eating spaces. The following rules will apply to the Molecular Plant Sciences Building to implement this Food and Drink Policy:

- 1. It is preferable to eat outside of the building when possible, either in the gardens or in your car.**
2. The following lunchrooms and office spaces are designated as lunch areas.
 - a. Lunchroom (MPS 2285, MPS 3290, MPS 4290) – occupancy 3
 - b. Shared office space (MPS 2255, MPS 3245, MPS 4270) – occupancy 3
 - c. Shared office space (MPS 2275, MPS 3285, MPS 4285) – occupancy 1
 - d. Personal office space (MPS 2200, MPS 3200, MPS 4200) – occupancy 6 (one person per space between the desks where there is no sliding door access to the lab)
 - e. PI's office – occupancy 1 with the door shut

Always maintain social distancing (>6 feet apart) and follow the occupancy rate at any single time. An example of spacing is shown below in the floor plan of MPS 3rd floor. Breaks and meals cannot be social events. Conference rooms will remain closed.

3. Time spent in the lunchroom, kitchen and office space for breaks and lunch must be recorded in Google Calendar, Microsoft Teams, LabArchives Scheduler, or other electronic systems being used for scheduling the lab shifts. The name of the individual and in/out time must be recorded appropriately as such the records can be kept and stored electronically.
4. Signs indicating maximum occupancy and mask wearing policies (masks must be worn when not eating) will be posted.
5. Eating space and kitchen must be cleaned and disinfected by individual users before and after use. Disinfection should follow EPA approved guidelines (70% alcohol for 5 min; Sani-wipes for 3 min). Disinfectants and wipes will be present in the room.
6. The use of refrigerators, microwaves and water boilers will be allowed. Nobody should be waiting in line to use these items. Disinfect the handles, doors and buttons before and after use with 70% ethanol (5 min exposure time), the same as shared equipment in the labs. Individual users are responsible for the disinfection. Toasters, communal coffee pots, etc. will have to be removed by their owners.

7. The use of disposable cups, plates, bowls and utensils is highly recommended at this time. Everyone should bring and take home all personal utensils and a plate or bowl each day.
8. Plates, bowls, and utensils should not be shared. No common knives, spatulas, forks, spoons, can openers or serving utensils are permitted.
9. Personal items like cups or mugs must be kept in a labeled drawer or tub, not on the countertop. Dish racks will be removed.
10. Only one person at a time can use the sink. Do not leave items in the sink – clean your personal items immediately after use.
11. Food should be prepared and ready to heat and eat each day. Food should be in a labeled lunch bag in your designated refrigerator or inside your labeled drawer or tub. No bulk food in the refrigerator or freezer is permitted at this time. Bring only what you plan to eat that day to minimize touching items in the refrigerator. Take your bag home at the end of the day.
12. Food should be prepared at home and only reheated and eaten in the lunchroom. **No leftover food storage in refrigerators or freezers is permitted beyond the end of the day.**
13. No common salt, pepper, sugar or other condiments are permitted.
14. No books, magazines, newspapers, notebooks, games or computers are allowed in lunchrooms. Rooms are for eating only.
15. Snacks and community food to share should not be brought to work during this pandemic period.
16. Standard Operating procedures will be posted.

