

**Biological Sciences Division (BSD) Implementation Plan for
Research Resumption**
February 1, 2021

I. Guiding Principles for Research Resumption

As of February, 2021, the BSD is implementing the following modifications to our Implementation Plan for Research Resumption:

- Daily sign-in/sign-out sheets for each laboratory (whether they be paper or electronic) will be optional.
- The safety walk throughs performed by either the Departmental Safety Officers or Laboratory Safety Contacts may be reduced in frequency to once weekly (from twice weekly).
- As announced to BSD faculty on December 29, 2020, an undergraduate is no longer required to have at least one year of prior experience in the PI's laboratory in order to perform research and be approved on a laboratory's Research Resumption Plan. The PI must identify who will serve as the undergraduate's direct student supervisor and document (e.g., via an email) the supervisor's agreement to supervise the student.
- All other principles and guidelines outlined in the Implementation Plan below remain in effect.

These principles guide the University's approach to the phased resumption of research activities:

- The health and safety of individuals is paramount.
- We will resume activities in phases in accordance with city, state, and public health guidelines.
- We will resume activities in close collaboration with campus public health experts and the University of Chicago Medical Center.
- We will attend to changes in the status of the COVID-19 pandemic.

As we continue our gradual resumption of research activity, and move from Phase 2 (up to 25% occupancy of laboratory spaces) into Phase 3 (up to 50% occupancy of laboratory spaces), the health of BSD and University personnel remains a top priority.

University-wide guidelines and requirements regarding COVID-19 safety measures are available at <https://goforward.uchicago.edu/> and apply to BSD research conducted under this plan. In addition to reviewing the University-wide guidelines and requirements and as well as those set forth in this plan, we encourage you to also review the University's guidance on the respective roles and responsibilities of Researchers, PIs, Chairs, Deans, which is available at <https://goforward.uchicago.edu/research-planning/>.

Remote work will continue to be encouraged and supported as much as feasible, with requests addressed in a consistent manner. Faculty and other academic appointees, students, and postdoctoral researches who have concerns about returning to the BSD should contact their Departmental academic affairs lead or Vicky Prince, Dean for Graduate Affairs (for graduate students), or Nancy Schwartz, Dean for Postdoctoral Affairs (for postdocs). Staff should consult with their immediate supervisor and/or their HR lead.

The Dean will enforce a low tolerance approach to failure to comply with safety requirements. Generally, faculty and other researchers can expect to receive a warning from the Dean's Office in the first instance, but in the case of serious or repeated instances of noncompliance, the researcher's operations may be downgraded, access may be limited or suspended, and, if necessary, closed until otherwise approved by the Dean.

II. BSD Research Resumption General Guidelines

In order to conduct research under this BSD Implementation Plan:

- All labs must have appropriate personal protective equipment (PPE), disinfectant solutions, and personal sanitation devices and supplies. Face coverings and disinfectant will be provided by the University/Division.
- All returning researchers must have completed the ORS COVID-related training (cvd-01W: COVID-19, Controlled Resumption of Research Activities and attestation.
- Each Principal Investigator must first operate under an approved Phase 2 Research Resumption Plan (RRP) that addresses safety, physical distancing, and lab density (25% of maximal lab occupancy) along with plans to monitor, evaluate, and govern safe behaviors in the lab. Chairs/Section Chiefs/Directors must evaluate and recommend for approval a RRP by signing the PI's proposed RRP. Upon signature, the PI must upload the RRP to the University web-based research intake form where the PI will complete a set of questions regarding sponsored funding and regulatory compliance for proposed research. Uploaded forms will be simultaneously forwarded to the BSD Dean and Chairs/Section Chiefs. Final approval of each RRP requires the Dean's approval and the Chair's final digital approval. Chair's final approval through the University intake system will be contingent upon the following: Chair's confirmation that each laboratory has appropriate PPE, an assigned Laboratory Safety Contact (LSC), and plan to monitor and document daily attendance. Access to BSD research buildings will be contingent upon an approved RRP, as well as completion of online safety training and attestation by all researchers.
- PIs may only move to Phase 3 (i.e., 50% of maximal lab occupancy) if their laboratory has demonstrated compliance with an approved Phase 2 RRP. PIs wishing to move to Phase 3 should complete the *BSD Amendment to RRP* form for Phase 3, describing any changes to their approved *RRP* from Phase 2, and indicating the location of the revised Designated Research Areas (DRAs) for Phase 3.

III. COVID-19 Health and Safety Requirements

COVID-related requirements for all researchers, including self-monitoring, face coverings, hand hygiene, social distancing, routine (daily at a minimum) disinfection of work areas, observing travel restrictions, and self-reporting of exposures and positive COVID-19 test results continue to apply. These requirements are as detailed at <https://goforward.uchicago.edu/health-requirements/>

Please note that researchers and staff are expected to self-report if they are COVID positive, experience symptoms, have been exposed to a COVID-19 positive person, or have recently traveled to certain locations, in accordance with the University's Protocol for COVID-19 Exposures.

We will all be working together to develop and evolve safe lab practices and behaviors during research resumption. This will involve encouraging coworkers to share concerns about COVID-related personal and public health issues. As part of these efforts, PIs should ensure their laboratory members know that members of the University community who have concerns about potential noncompliance with health and safety requirements related to COVID-19 can share their concerns (anonymously, if preferred) through the University Accident Incident Reporting (UCAIR) system. BSD-related concerns that are reported through UCAIR will be shared with Deans Conrad Gilliam and Connie Lee so we can be aware of and address the underlying concern where appropriate.

Examples of COVID-19-related issues that should be reported through UCAIR include:

- Concerns about face covering/PPE usage
- Concerns about social distancing and space density
- Concerns about cleaning and disinfection
- Concerns about individuals who should not be in contact with others on campus; for example, if they have symptoms consistent with potential COVID-19 or are subject to mandatory quarantine
- Any other COVID-19-related public health concern

This is an expanded role for UCAIR, which is the system currently used for reporting accidents/incidents or safety concerns on campus. During the pandemic, UCAIR will also serve as the system for anyone at the University to use to report and escalate concerns about COVID-19 health and safety violations. UCAIR should **NOT** be used to report any potential COVID-19 exposures or confirmed cases. For these types of reports, individuals should email C19HealthReport@uchicago.edu.

IV. Divisional Support for Research Ramp-up:

Face coverings, Cleaning Solutions, Signage, Hand Sanitizers. Providing these elements will be the responsibility of the University/Dean's Office

- The University will initially provide two cloth face coverings for each returning researcher along with a supply of disposable face coverings for instances where researchers do not have their cloth face coverings for whatever reason. BSD has designated distribution points where representatives from each returning lab may arrange to pick up supplies for their group.
- Gloves are considered standard research PPE and thus the responsibility of the individual labs.
- PIs must consider and procure any additional PPE requirements for lab members (e.g., disposable gowns, face shields, etc.), such as during training and procedures where two lab members must work in close proximity. Face shields are available through the Office of Research Safety; contact ORS at researchsafety@uchicago.edu.
- Cleaning and disinfectant solutions should be thoughtfully positioned so that lab personnel may clean upon entering and exiting the lab; may gown and de-gown if necessary; discard and change gloves and wash hands as needed; all high touch shared equipment, freezers, warm and cold rooms, etc., should be routinely surface disinfected and should have a nearby supply of disinfectant wipes and/or disinfectant solutions, as needed.
- Plans and signage are in place for use for elevators and bathrooms, and for use of common areas, shared rooms, shared equipment not located in the lab per se.

- Hand sanitizing stations are available at appropriate locations.

Core Facilities:

- Core facilities managed by the BSD have completed their own RRP.
- Based on the research activities described in the PI RRP, core facilities will take appropriate measures to ensure they are functional, staffed, and maintained.
- Animal Resources Center (ARC) has planned for the animal needs of on-site researchers and has ramp-up plans to protect its staff as well as back-up plans in the event of a ramp-down or self-quarantines.

Eating:

- Since many of our dining areas are shared by multiple labs, it is the responsibility of the Departmental Safety Officer (DSO) to coordinate with LSCs to implement, monitor, and oversee safe practices. Kitchens and eating/dining areas require special attention. When eating, there should be a minimum 8-ft physical separation between individuals, with a requirement for hand washing upon entry and exit. No lab coats should be worn or brought to dining areas. Strict adherence to maintaining sign in (names and times) and sign out (names and times) logs is essential as this information is critical to enable subsequent contact tracing, when necessary.

V. Considerations for PI RRP

a. Phase 2 RRP (25% maximal lab occupancy):

Each PI of an active lab is required to develop an initial research resumption plan (RRP) designed for Phase 2-level density.

Laboratory personnel will be expected to maintain a minimum physical distance of six feet between adjacent researchers in the lab. Taken in conjunction with other safety measures (universal face coverings, safety training, frequent hand washing, frequent cleaning of surfaces, self-monitoring for symptoms and keeping symptomatic people off campus and out of the laboratories, etc.) these measures aim to reduce chances of introducing COVID-19 into the laboratory community and spread amongst those in the laboratory and support spaces. Given the diversity of our laboratory configurations, there is not a single formula that will serve to guide the safe resumption of our division-wide research operations. Each researcher should be assigned appropriate space to conduct their research while minimizing risk of exposure to COVID-19.

With these considerations in mind, we will use the following metrics for Phase 2 RRP:

- A minimum six-foot distance between any two researchers working at their designated research area will be required. The RRP must describe how each proposed researcher will be assigned a designated research area (DRA). PIs must describe an area in the lab where a researcher can conduct their bench research (including moving within this assigned area) with confidence that they will be separated by a minimum of six feet from other investigators. These DRAs should not contain common items or equipment required for use by other investigators (if present, these must be moved to a common area), and the space should be configured and clearly demarcated such that other investigators working in the same shift do not encroach within six feet of the individuals designated area. If there are no natural barriers demarcating the designated space (i.e., unoccupied bench space, walls, etc.) it may be necessary to mark the research boundaries via other methods (taped boundaries on floors, etc.).

- The number of researchers working together in the lab at any given time may not exceed 25% of maximal lab occupancy. Lab occupancy refers to the number of researchers a given lab can reasonably accommodate under normal conditions and is usually equivalent to the number of workstations.
- An essential element of Phase 2 research operations is the ability to monitor, evaluate, and rapidly evolve best safety and public health practices, including physical distancing, and to pave the way for subsequent research ramp-up. Accordingly, no more than two asynchronous lab shifts will be allowed per day.
- In addition to a plan describing the designated research areas, PIs will provide a plan that addresses the safety of all personnel who share the common lab space (all space other than designated research areas), including the shared use of resources (freezers, cold rooms, incubators, etc.), research support rooms (tissue culture, microscopy, etc.), and common areas and conference rooms as well as provisions to routinely disinfect these common areas.
- Each PI will tailor their plans to the unique features of their lab space including the physical layout, the research support rooms and infrastructure, common areas, instruments, and other lab resources that coworkers must navigate each day while maintaining the safety and public health protocols, including physical distancing, required to minimize the potential for transmission of COVID-19. Many of our labs are organized around the layout of lab benches and lab bays; others are organized more by open rooms, cubicles, and desk space. For bench-oriented labs, PIs are encouraged to make use of unoccupied benches (or walls) to provide a physically-protected area for their researchers. Researchers who require a single bench for their experiments would require some combination of the following to provide natural protection on both sides: a wall; unoccupied bench plus unoccupied aisle (between two bays, for example); or an unoccupied bay (two unoccupied benches). An example of adjacent DRAs might be two researchers located at opposite sides of adjacent bays. Such an arrangement would provide more than six feet of separation between the two researchers while they move within their designated research areas. For other types of lab configuration, each researcher could be assigned a 300-400 SF DRA to ensure their physical separation. If such areas are not physically separated from the rest of the lab space, it will be necessary for PIs to find appropriate ways to demarcate and protect researchers working within semi-open areas. For both bench-oriented and open spaces, PIs must describe both the physical space and the behavioral guidelines that will together provide for the researcher's safety.

Activities Involving Multiple Lab Personnel: When two or more researchers are working simultaneously, PIs must plan for physical distancing and safety when the personnel leave their DRAs to access common resources. RRs must identify which resources (freezers, shaker incubators, cold/warm rooms, etc.) or instruments co-workers require for their work and provide a plan for their safe use and compliance with COVID-19 public health requirements. For example, two researchers who regularly use the same equipment might need to be placed on different shifts. Particular thought should be given to the availability of sinks within the laboratories for hand washing. Ideally, one researcher should be assigned to one sink during their shift, depending on the arrangement of the laboratory.

Asynchronous Shifts to Facilitate the Need to Maintain Physical Distancing: PIs and researchers may organize into shifts, contingent upon an appropriate Research Resumption Plan and compliance with the metrics described above. While PIs and researchers work to maximize safe operating procedures, we will keep the limit to two shifts per day.

- Entering and Exiting Labs: Entry into the laboratory through a common passage should include access to appropriate PPE, waste containers, and disinfectant supplies so that incoming researchers can wash hands and don appropriate PPE, and outgoing researchers can dispose of gloves and other disposable PPE, wash hands, etc. before exiting.
- Safe Shift Practices: Personnel must ensure any common bench space and high touch areas and shared equipment are disinfected and wiped before and after their use. There should be an established means of communication between shifts in the event of protocols that run overly long, etc.

Principal Investigators' Responsibilities for RRP Development:

PIs should use the template Phase 2 RRP to ensure the PI has addressed the following issues that are relevant to your lab:

- List ALL researchers in your group: Research scientists, postdoctoral fellows, graduate students, technicians, and other (and specify their roles).
- Based on research density metrics described above, propose a plan that details the safe resumption of research in your lab and the maximum number of people at any given time. For most labs, this will be between two to four researchers working together at any given time. Because lab architectures are critical to assigning safe work areas, obtain laboratory floor plans from Archibus to assist in your planning, and work with your Chair/Chief/Director to devise optimal safe solutions.
- Provide a schedule or calendar with start and end times of each shift along with the names and contact information for each person by shift. Describe plans for communication between shift-workers, self-cleaning, etc. In Phase 2, we will only allow two shifts on any given day to allow for a gradual ramp-up of research operations.
- As long as your lab shifts do not exceed 25% of normal lab occupancy, we will allow for some rotation of lab members. In other words, if you are approved for a maximum of two workers at a time, and one or both of these researchers do not need to work all seven days of their shift, you may substitute an additional researcher(s) to work those alternate days. Most importantly, you must provide a schedule that clearly outlines which researchers will be in the lab at any given time on any given day and stationed at which DRA. This is a critical aspect of the RRP as it underpins your ability to monitor, evaluate, and amend as necessary the safety protocols that protect our lab staff and that are prerequisites for any subsequent research ramp-ups.
- Provide a list of all researchers who will come to campus under your RRP along with their contact information (email, phone, UChicago IDs). Please identify which researcher(s) will serve as your Lab Safety Contact.
- Describe any equipment or other resources that need to be repositioned, or that require special cleaning procedures in order to meet biosafety and public health criteria. Designate a lab member to be responsible for such equipment (such as the Lab Safety Contact).
- Note which resources (freezers, incubators, equipment, etc.), support rooms (cold room, warm room, tissue culture, etc.), etc., coworkers will need to share and describe plans for social distancing and for cleaning common surfaces and areas when researchers are moving about outside of their assigned lab areas.
- In addition to the calendar/schedule noted above, institute a daily sign-in sheet for your laboratory that will be maintained by your designated Laboratory Safety Contact. All lab members who have entered the lab on that day must sign in and sign out. This

information must be recorded daily and maintained by the PI. This will be essential for effective contact tracing in the event a researcher should test COVID-19 positive.

- Your plans should identify and address risks related to your lab members' commutes to and from the lab, for example, exposure risk due to public transportation or personal safety risk resulting from having to work later into the night because of lab shifts.
- Describe any research core(s) or animal facilities requirements for the initial Phase 2 RRP and subsequent phases.
- Describe plans for posting the following information in your lab: individual safety protocol; lab cleaning protocols; social distancing protocol; and current list of COVID-19 symptoms.
- Describe plans for monitoring daily health status (home temperature twice a day and general health status), for ensuring each lab member knows they cannot come to lab if symptomatic, and for encouraging and supporting lab members to inform coworkers and the PI when they detect a lab member who is symptomatic.
- Describe how you (the PI), your Lab Safety Contact, and your department chair will oversee, monitor, evaluate and remedy as necessary safety and COVID-19 public health practices, including physical distancing practices. Note that each department/section/institute will appoint one or more Departmental Safety Officer(s) (DSOs), and the Chair or the DSOs will perform walk throughs of each lab at least two times per week. DSOs must also coordinate with LSCs to implement, monitor, and oversee safe practices regarding shared eating spaces as described in Section IV. The Office for Research Safety will perform spot checks for compliance with COVID-19 public health requirements.
- Describe a communication strategy for potential COVID-19 infected research personnel. This will be necessary for contact tracing of the individuals they might have been in contact with or which rooms and areas of the laboratory they were in prior to the infected individual testing positive. The lab's calendar/schedule along with the daily sign-in sheet should be key tools in this process. Chain of communication should then go to Department Chair and then to the Dean's Office.
- Once your Chair/Section Chief has recommended your RRP for approval, submit your RRP to the University through the University web-based research intake form (available at <https://goforward.uchicago.edu/research-planning/>) for final approval by the Dean.

Department Chair/Section Chief RRP Responsibilities:

- Review each PI RRP, amend as necessary and recommend the RRP for approval (i.e., submission through the University portal). Submit a PI's RRP to the Dean for approval after you confirm completion of online safety training and attestation by all included researchers, and that the researchers have appropriate PPE, an assigned LSC, and plan to monitor and document daily attendance. A process for approval is included in the RRP form.
- Confirm that density and social distancing practices are maintained at the junctures of adjacent PI labs.
- Ensure that rooms, equipment, and common areas shared amongst multiple Departmental laboratories are properly monitored and maintained. Each piece of shared departmental equipment should be assigned to a relevant lab member (or Departmental Safety Officer, see below) who will be responsible for regular disinfection of the high touch areas, and signage should be placed near shared equipment to remind individual users to clean before and after their shifts if they have used shared equipment.

- Work with Office of Research Safety to designate a Departmental Safety Officer (DSO) who will work with you, divisional Laboratory Safety Specialists and departmental PIs to monitor, evaluate and ensure safe lab practices. Coordinate with the Lab Safety Contacts to schedule twice weekly walk throughs of each departmental lab to monitor for appropriate density, PPE usage, and other COVID-19 public health practices, including physical distancing.
- Report any incidents or concerns among their faculty and escalate when required or appropriate to the Dean(s).
- The Office of Research Safety will also perform spot checks of the research buildings and will report violations to the Dean's Office and to the Vice-Provost for Research.
- Ensure the chain of communication—from the PI -> Chair -> Dean's Office—will be followed for the escalation of any problem related to safety or a potential COVID-19 positive individual.
- Ensure Department faculty and research personnel are familiar with the safety incident reporting tool – UCAIR – from ORS.
- After reviewing the RRP for each PI in your department or section, coordinate with your DSO(s), LSCs and PIs to maintain an updated checklist that your departmental safety officers will use for their twice-weekly lab safety walk-through; schedule follow up meetings (via Zoom) to evaluate the safety reports, along with any reports from ORS visits, and work with your PIs to remedy any shortcomings and to help evolve an improved set of protocols and safe-practices.
- If faculty RRP were submitted prior to attainment of required PPE (face coverings and sanitation supplies) and prior to their completion of the required ORS COVID-safety training and attestation, the BSD Dean will rely upon the Chairs/Chiefs to inform us once these prerequisites have been met so that we can release final approvals.

b. Phase 3 RRP (50% maximal lab occupancy):

Each PI with an approved Phase 2 RRP is eligible to amend their RRP to move to Phase 3. Please note that other than changes set forth in this section V.b., the Phase 2 RRP guidelines and requirements described above (including maintaining a minimum 6-ft physical distance between DRAs) will continue to apply.

Faculty should complete the *BSD Amendment to RRP* form for Phase 3, describing any changes to their approved Phase 2 RRP. The amendment should indicate the location (with floor plan, where necessary) of the revised Designated Research Areas (DRAs) for Phase 3.

- For most labs located in KCBD, GCIS, and BSLC where the labs are oriented around (relatively long) research benches and bays, 50% maximal occupancy means two researchers per bay, or one per bench, organized in a diagonal manner, with individuals not facing each other.
- For most labs located in CLSC and Peck where labs are oriented around (relatively shorter) research benches and bays, 50% maximal occupancy means one researcher per bay.
- For buildings with more heterogeneous lab configurations like those in Hull Court, Phase 2 rules (minimum 6-ft physical distance between DRAs) apply but allowable density is increased from 25% to 50%. For these labs, PIs will need to present a revised floor plan and brief description of the proposed new DRAs.
- In Phase 3 we will allow occupancy of open-area cubicles with a minimum 6-ft spacing between researchers.

- The remaining lab areas and the shared spaces will be governed by the same physical distancing and safe practices outlined in Phase 2.
- Your revised Phase 3 plan must (i) identify whether shifting to Phase 3 presents any new or specific risks not previously addressed in your Phase 2 RRP and (ii) include how you plan to mitigate such risk(s).

The BSD Amendment to RRP form for Phase 3, along with a completed Excel template naming any new personnel, if applicable, should both be uploaded for approval to the University web-based research intake website under “Amend your approved research resumption plan”.

a. Graduate Student Trainees

In Phase 3, first year graduate students may rotate assignments in prospective laboratories. There may be infrequent occasions where individuals involved in training graduate students rotating through their labs may have to briefly deviate from the 6 foot distancing guidelines in order to accomplish certain aspects of the laboratory training. In such cases, the faculty member and their LSC will need to contact the Office of Research Safety to determine what additional measure(s) or PPE may be required to accomplish these aspects of the training, such as face shields, goggles, disposable gowns etc. These additional measures should be reflected in the amended RRP if they were not already addressed in the PI’s Phase 2 RRP.

b. Undergraduates, Visitors and Volunteers in the Laboratory

As of July 15, faculty may include undergraduate students in their *RRPs* under the following limited circumstances: (i) the undergraduate has previously worked in the PI’s laboratory for at least one academic year or has previously demonstrated the ability to work independently in the PI’s lab, (ii) undergraduate participation is deemed essential for the research program; and (iii) the undergraduate can be accounted for and accommodated under the then-applicable density threshold.

Inclusion of any such undergraduates will require the prior approval of an amended *Phase 3 RRP* which should include a description of how the undergraduate will be supervised while on-site in the lab. We recognize that undergraduates who meet these criteria may not live in the Hyde Park/Chicago area. Given that COVID-19 conditions and travel limitations locally, nationally, and internationally remain in flux, we strongly advise against including students who would need to travel to the Chicago area. Please keep in mind that students traveling to campus from other states must not only comply with University requirements but also the City of Chicago’s Emergency Travel Order directing individuals traveling from designated states to self-quarantine for 14 days. Undergraduates included in an approved *RRP* will be required to complete the applicable lab-based training (*COVID-19, Controlled Resumption of Research Activities*) and attestation prior to joining the laboratory.

Volunteers and visitors are not allowed in BSD research buildings.

Next Ramp-up Phase: The next ramp-up phase of increased density will be contingent upon many factors including compliance with state and local orders as well as evidence that the safety and social distancing practices we have put in place have proven effective, that our community remains committed to safe practices on campus as well as in our personal lives, and that our practices align with those prescribed by the public health authorities.