**­Physical Sciences Division (PSD) Research Resumption Implementation Plan**

The core of PSD’s research resumption implementation plan will be the individual plans that PIs produce based on the **PSD** **Research Resumption Form (Appendix)**, following the guidelines provided here and by the University, including **Research and Scholarship Resumption Roles and Responsibilities**.

**PSD Research Resumption Process**

* Department chairs and institute directors will appoint committees with appropriate expertise to review these plans (including updates to previously approved plans to move from Phase 2 to Phase 3). Following any needed revisions and the recommendation of approval by the department, chairs and directors will forward the plans for PSD review. Approval is by the PSD Dean’s Office (see below), and the PSD reserves the right to return plans for revision and re-review by departments.
* Departments/institutes should compile lists of laboratories and research groups requiring each core facility and any ancillary facility and provide them to PSD.
* A committee of faculty representatives from the seven departments and four institutes in PSD will review the plans and identify potential multi-unit points of contact that require coordination. Based on the recommendations of this committee and its own review, the PSD Dean’s Office will approve plans and confirm that a copy is available to the Vice Provost of Research (VPR). Access will only be granted to researchers following their initial plan’s approval and their completion of required training and attestation. Failure to comply with their plan can result in downgrade of access (see below).
* Copies of approved plans will be kept by departments/institutes, the PSD, and the VPR and posted on laboratory and office doors (with individual personnel data removed).
* Core facilities managers will describe in their plans whether and how their facilities can be accessed by users in each phase of research resumption. Some core facilities may be operated as drop-off services, and others will require only regular maintenance by facility staff to allow on-site access by trained users. Core facility managers will make their research resumption plans available to their users, including guidance on core facility use.
* Each Principal Investigator (PI) will also complete the [University’s Research Intake form](https://goforward.uchicago.edu/research-planning/) for their initial plan and the Research Resumption Modification form for subsequent amendments.
* Everyone resuming research activities on campus must complete the Office of Research Safety (ORS) COVID-19-related safety training and attestation.
* Departments and institutes will appoint safety officers who will perform daily walkthroughs of buildings, and laboratory safety contacts will provide reports via [the University REDcap webform](https://redcap.uchicago.edu/surveys/?s=A8YKLN4KYD) on individual laboratories twice a week. The PSD Laboratory Safety Specialist and ORS will also perform periodic checks. These checks will be used to enhance safety and social distancing practices as prerequisites for further ramp-up. Violations of density or other safety or compliance issues will be reported through the University of Chicago Accident/Incident Reporting System ([UCAIR](https://ehs-prd-01.uchicago.edu/ehsa-ucair/InjuryIllnessIndexUOFC-IT.html), described further below).
* 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 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.
* Departments and institutes will work with PIs to ensure coordination between nearby labs, offices, and core facilities.
* PSD, departments, and institutes will encourage incident reporting through [UCAIR](https://ehs-prd-01.uchicago.edu/ehsa-ucair/InjuryIllnessIndexUOFC-IT.html) as a means towards both ongoing safety of individuals. The [UCAIR](https://ehs-prd-01.uchicago.edu/ehsa-ucair/InjuryIllnessIndexUOFC-IT.html) system from the Office of Research Safety supports desktop and mobile app reporting and can be used anonymously
* PSD-related concerns that are reported through UCAIR will be shared with the Dean, the Deputy Dean overseeing research resumption, and the PSD Laboratory Safety Specialist so the PSD Dean’s Office is aware of and can address the underlying concern where appropriate. More information on the UCAIR reporting process is available at <https://goforward.uchicago.edu/research-planning/>. Note that UCAIR should NOT be used to report any potential COVID-19 exposures or confirmed cases. For these types of reports, email C19HealthReport@uchicago.edu.
* Remote work will continue to be encouraged and supported as much as feasible, with requests addressed in a consistent manner. Students who have concerns about returning to on-campus research can contact the PSD Dean of Students, Bahareh Lampert (blampert1@uchicago.edu) and research staff and postdoctoral scholars who have such concerns can contact their [Human Resources Partner](https://physicalsciences.uchicago.edu/people/#human-resources) or Divisional Administrator Susan Hearth (skphearth@uchicago.edu), in addition to departmental representatives. PSD, departments, and institutes will communicate to researchers (students, postdoctoral scholars, and staff) to whom their concerns about returning to the lab can be reported.
* PIs will be responsible for reviewing plans regularly (e.g., every two weeks) to address shortcomings and remedy safety issues.
* PIs will be responsible for providing the researchers in their lab with PPE such as (i) cloth and disposable face coverings, (ii) hand sanitizer/soap and dispensers, (iii) surface cleaning disinfectant, (iv) paper towels, and (v) face shields (for research requiring personnel in close proximity to each other). Glove use should follow standard laboratory practice. The University will provide two cloth masks for researchers and staff returning to campus, and these will be distributed through departments/institutes. For additional COVID-19-related PPE, the University has set up a central mechanism for procurement. Each department/institute has an account for tracking COVID-19-related PPE purchases and may be able to reimburse expenses.
* PSD will work with Facilities and other units in shared buildings (e.g., PME, BSD) to ensure adequate PPE is available and placed effectively in public spaces. The supply of these items will be monitored in each building by the respective building manager or another staff member designated by the department/institute. Requests for resupply of these items should be directed to the PSD Director of Design and Construction, who will coordinate procurement and distribution to the PSD buildings.
* All PSD personnel must follow University [COVID-19 Health Requirements](https://goforward.uchicago.edu/health-requirements/#reporting) for daily health protocols, self-monitoring, and reporting COVID-19 exposures and cases.
* Vendor visits (e.g., for equipment repair and installation) must follow all [University public health protocols](https://goforward.uchicago.edu/health-requirements/) and be pre-approved by PSD. This requires vendors to complete the [on-site access form](https://goforward.uchicago.edu/facilities-resources/#vendor-access); the PI should keep a record of the access log after the visit and submit a copy to PSD by email to ctaylo@uchicago.edu.

**Travel and Off-Campus Research**

Research-related travel is governed by [the University’s COVID-19 travel policy](https://goforward.uchicago.edu/health-requirements/#travel) as well as [the City of Chicago’s Emergency Travel Order](https://www.chicago.gov/city/en/sites/covid-19/home/emergency-travel-order.html).

Exceptions to the travel policy will be considered case-by-case, following the University’s protocol distributed in late July. In particular, would-be travelers will be required to address the following points:

* Compliance with all local, state, regional, and national health guidelines;
* The necessity to travel to achieve the anticipated benefit, including any time sensitivity of the proposed travel, and the impact to the underlying project if travel is delayed;
* The potential risk to personal health and safety of the traveler(s) and others with whom they may come into contact during travel, taking into account available public health and governmental guidance;
* The University’s ability to assist in a return to the United States in emergency circumstances, and access to healthcare at the travel location;
* The risk to the health and safety of University faculty, staff, and students, and the University’s surrounding communities, upon return;
* Other factors that may be relevant.

Exception requests must be approved by the department chair or institute director and the by PSD Dean’s office.

Off-campus research that does not involve travel outside Chicago will follow the guidelines and process laid out in [the Non-Laboratory Research Resumption Planning document](https://goforward.uchicago.edu/research-planning/), with specific off-campus research resumption plans submitted online for PSD approval along with the [University’s Research Intake form](https://goforward.uchicago.edu/research-planning/). Off-campus research plans involving visits to other research institutions in the Chicagoland area (e.g., Argonne National Laboratory, the Field Museum of Natural History) must demonstrate that the health and safety requirements of those institutions are being satisfied.

**PSD Building Access**

Research resumption requires access to the following PSD research buildings. Each is identified as being either a laboratory research building (which also includes non-laboratory research) or a non-laboratory research building, to indicate under which Phases of research resumption these buildings need to be open. The entrances required for access when the buildings are open are identified for each building.

*PSD Laboratory research buildings*

* Accelerator Building, ACC: Main door, west entrance, and 5620 S. Ellis entrance (needed for deliveries and building oversight routes)
* Crerar, JCL: Main entrance
* Eckhardt Research Center, ERC: All exterior doors including the dock (needed for deliveries and building oversight routes)
* Gordon Center, GCIS: Main entrances to East and West wings, and dock.
* Hinds, HGS: Main door, west entrance, and dock (needed for deliveries and building oversight routes)
* Jones Laboratory: Main entrance
* Kersten, KPTC: All exterior entrances (needed for deliveries and building oversight routes)
* Michelson, MCP: North and south entrances (needed for deliveries and building oversight routes)
* Searle, SCL: Main entrances

*PSD Non-laboratory research buildings*

* Eckhart Hall: All exterior doors (needed for deliveries and building oversight routes)
* Kent Chemical Laboratory: All exterior doors (needed for deliveries and building oversight routes)
* Ryerson Laboratory: All exterior doors (needed for deliveries and building oversight routes)
* 5727 South University Ave.: Main entrance

Access to each building will be controlled and monitored using the keycard system. PSD requests access via each entrance listed above, when the buildings are open for research activity. Facilities Services will provide hand sanitizer at each open ground floor entrance and COVID-19 safety signage within each open building; when additional signage is desired, copies of the COVID-19 safety signs that have been provided to PSD building staff can be printed and posted where needed.

**Guidance for the Development of Research Resumption Plans**

Physical Sciences Division (PSD) PIs and core facilities managers must follow city, state, University, and divisional guidelines, as described in [**Research and Scholarship Resumption Roles and Responsibilities**](https://cpb-us-w2.wpmucdn.com/voices.uchicago.edu/dist/c/2255/files/2019/04/RESEARCH-RESUMPTION-ROLES-AND-RESPONSIBILITIES-converted-2.pdf). It is important to emphasize that the goal of the phased resumption of research is to develop safe and effective practices and not to maximize research capacity. The health and safety of individuals must be the primary focus of all activities. Increases in personnel densities and research activities are dependent upon many circumstances, including the dedication and determination of everyone to remain committed to physical distancing, face coverings, and other safety measures while on campus as well as in our personal lives.

Given that new waves of infection may arise in the coming months, research groups need to plan for both (i) the short-notice isolation of individuals and teams and (ii) rapid ramp-down of research operations. Researchers should plan experiments accordingly.

All work that can be performed remotely (e.g., modeling, data analysis, paper writing, meetings, seminars, etc.) should continue in that manner.

No group can begin research activities until (i) appropriate personal protective equipment (PPE) and cleaning materials are available and (ii) training and attestation have been completed. All personnel should be familiar with the safety incident reporting tool – [UCAIR](https://ehs-prd-01.uchicago.edu/ehsa-ucair/InjuryIllnessIndexUOFC-IT.html) – from the Office of Research Safety (ORS). Departmental safety officers will regularly perform building walkthroughs, with support from the PSD Laboratory Safety Specialist and ORS; additionally, ORS will regularly monitor compliance with COVID-19-related public health practices via weekly outreach to laboratory safety contacts and building managers. We must all work together to protect the health and safety of individuals and the community.

Given the diversity of our space 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 to minimize risk of being infected by a neighboring researcher. In planning for such space, PIs need to consider density of researchers together with the layout of the space and any proximal laboratories, facilities, and offices.

This document was developed with the aid of draft planning documents from both BSD and PME, and researchers in spaces involving those units should be mindful of their policies as well.

**Form instructions**

**I.** **Personnel**

Using the personnel sheet template available from the [PSD Research Resumption Webpage](https://physicalsciences.uchicago.edu/about/psd-updates/research-resumption/), list essential personnel who require access and specify their roles (graduate students, undergraduate students, postdoctoral scholars, research staff, etc.). For each person, provide their email address, telephone number, and UChicago ID.

As of January 11, 2021, undergraduate students are no longer required to have one year of prior experience in the PI’s laboratory to participate in on-campus research. 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. Other guidelines for undergraduates include:

1. Adherence to the universal masking, 6 feet social distancing requirement, hand hygiene and other COVID-19 related public health practices within the laboratory.
2. The undergraduate’s completion of (i) the [COVID-19 safety training](https://researchsafety.uchicago.edu/covid-19/covid-19-training/) and [attestation](https://covid19attestation.uchicago.edu/) and (ii) COVID-19 safety training for lab-based researchers ([cvd-01W](http://ehsa.uchicago.edu/training)) along with a post-training quiz score of at least 70%
3. Completion of relevant lab safety training (e.g., biosafety, chemical hygiene, laser or radiation safety training, general lab safety) which can be found at [ORS training](https://researchsafety.uchicago.edu/training/).
4. If the undergraduate is a minor (i.e., less than 18 years of age), please contact Office of Research Safety (researchsafety@uchicago.edu) to confirm other requirements pertaining to minors in laboratories are satisfied, including parental consent.

*Note: It is still the case that undergraduates who are not enrolled in the College are not eligible to participate in on-campus research activities via the “Educational Assignments” process, which will remain suspended until further notice.*

Spaces and facilities should be operated in such a way as to limit total occupants at any one time. When needed due to the number of researchers sharing space, this can be done by defining shifts, which identify teams that work in defined blocks of time. Research teams should be designed such as to minimize the chance of the spread of infection from one team to another.

Resumption of research operations will require a period of time to develop and refine safe laboratory practices for each phase. For these reasons, PI plans must conform to one or more of the following metrics:

* Individuals present in a lab at any given time cannot exceed 25% of lab capacity in Phase 2 or 50% of lab capacity in Phase 3 (lab as defined as an isolated room);
* A minimum six-foot distance between any two researchers working at their assigned stations.

Note that standard safety practices (e.g., not working alone in a chemical laboratory) must also continue, and the metrics above can be adjusted to account for these practices, so long as an explicit plan to mitigate risk is presented. Given the reduced density of personnel, PIs should have in place plans that enable researchers working alone to call for aid if needed and/or systems for checking in remotely with other lab members.

With these considerations in mind, please indicate in the accompanying spreadsheet who will participate in teams performing essential and time-sensitive mission critical research and training. Note that the number of shifts may be limited to maximize safe operating procedures. See **Scheduling** below for further guidance.

To the greatest extent possible, core facilities should be operated as drop-off services to limit the number of researchers accessing the space.

**II. Space**

On the accompanying form, list all lab, office, and break spaces used by your group, the nature of each room, and how many people will be in it at one time. Be sure to list common and shared spaces, indicating other groups that access those spaces. If possible, provide diagrams indicating researcher stations and shared equipment. Consider reconfiguring room layouts to facilitate physical distancing (e.g., move shared equipment to prevent congregating).

**III.** **Scheduling**

If you are proposing multiple shifts of research personnel to minimize the number of personnel present at any one time, provide a schedule with detailed reference to the teams and spaces described above. Be mindful of safety issues such as how researchers will reach the campus (e.g., public transport vs. walking). One option is to have each team work on alternating weeks, which decreases the possibility of spreading infection between teams and allows for the emergence of symptoms during the off weeks, but some research may necessitate more frequent rotation of shifts. Shift teams should be kept as constant as possible so that infection response (e.g., testing, isolation, and continued monitoring) can be focused.

PIs must institute a sign-in/sign-out process that will be maintained by the designated safety contact, and researchers must use this process every time they enter/exit the lab. Keeping these records will be essential for effective contact tracing. PSD Desktop Support can help setup QR-reader based sign-in/sign-out by request to psdds@uchicago.edu.

Additionally, PIs must have in place a mechanism for real-time communication between individuals on different shifts (e.g., in case an experiment runs long) while minimizing person-to-person contact; suggested mechanisms are Google Docs and Slack. Channels should include all researchers accessing common and shared spaces.

**IV.** **Facilities**

Describe facilities and services that your research will need on the accompanying form. Note that core facilities will also be running on restricted capacity to prioritize safety, and their use is a privilege not a right.

**V.** **Health and Safety**

When interacting with other individuals, observe COVID-related precautions as though they were known to be COVID positive.

Carefully consider the placement of and protocols for benches/stations, shared equipment, and other seating, including break rooms to enable physical distancing. The PSD Laboratory Safety Specialist can suggest options for adding barriers that do not interfere with accessing emergency equipment and taping floors to demarcate areas.

Per University guidance, a face covering must be worn at all times (i.e., disposable mask or cloth face covering) while on campus or within a University facility, except when alone in a private office with the door closed. Hand hygiene is important; regularly wash hands and use gloves in accordance with standard laboratory practice.

Eating on campus should be minimized (e.g., through the structuring of shifts) and must be only in designated break rooms with appropriate protection and cleaning, or a private office with the door closed, not in labs. Individuals should be separated by at least eight feet and should sit with their backs to each other. Consider the removal of chairs from break rooms to discourage overcrowding.

Confirm standard laboratory safety mechanisms are operational and effective under reduced personnel densities (e.g., check eye washing stations following a period of lack of use, add additional first aid kits, etc.).

Some research and training may require personnel to be within close (less than six feet) proximity of each other. In this case, the PI should provide a safety plan describing how PPE or other means will be used to mitigate risk, along with an estimate of how often this situation will arise. Face shields are recommended for use in addition to face coverings.

Each researcher is expected to clean/disinfect their workspaces at the start and end of their shift, and the start and end of each use of shared equipment. Cleaning and disinfectant solutions should be thoughtfully positioned within the lab.

Common bench space, high touch areas, and shared equipment must be disinfected and wiped after their use. Incoming workers must also disinfect common work areas and shared equipment before setting up their experiments.

Unless working with known (bio)hazardous materials, used disposable PPE can be placed in the regular trash.

Researchers should monitor their health status following [University guidance](https://restart.uchicago.edu/public-health-protocols/). Those expressing symptoms should not come to campus. Potentially infected personnel may consult with their health care provider or contact the UChicago Medicine COVID-19 triage hotline for screening, at 773-702-2800.

Describe how you (the PI), your designated safety contact, and your department/institute will oversee, monitor, evaluate, and remedy as necessary safety and social distancing practices.

Develop a ramp-down plan and do not pursue long-term experiments that would hinder its implementation.