

Brown University

Resuming Work in Research Facilities

Principles and Procedures: Stage 2

Updated July 16, 2020 (updates in red)

Additional Updates July 29, 2020 (updates in green)

Fall Semester Updates August 26, 2020 (updates in purple)

TABLE OF CONTENTS

- I. Introduction
- II. Guiding Principles
 - 1. *Follow the relevant local, state, and national public health authority directives.*
 - 2. *The resumption of research will be carried out in full compliance with the [Brown University COVID-19 Campus Safety Policy](#) and any other University policies that govern the return to campus.*
 - 3. *Protect the health and safety of the research workforce and the health and safety of human research subjects.*
 - 4. *Protect the careers of early stage researchers.*
 - 5. *Implement a fair and transparent process for resuming lab-based research.*
 - 6. *Ensure as rapid a research resumption as the public health conditions, applicable public directives, and University policies permit.*
 - 7. *Ensure that viral spread is isolated with minimal impact following University guidance.*
- III. Resuming Work Procedures for Stage 2
- IV. Process to Request Stage 2 Work in a Lab Already Approved in Stage 1
- V. Process to Request Resuming Work in a Lab for New or Previously Unapproved Plans
- VI. Approval Process
- VII. MRF Facility Specific Process

I. INTRODUCTION AND BRIEF SUMMARY OF CHANGES IN STAGE 2

Brown University's first priority is the health and safety of every member of the Brown community, and that priority has guided and will continue to guide all of the University's decisions and response to COVID-19. Stage 1 of resuming research at Brown has proven to be an effective approach to permitting researchers to safely resume non-remote research in accordance with state and federal public health guidelines. Because of this success and as the state of Rhode Island progresses through the phases of Governor Gina Raimondo's Reopening Rhode Island plan, the University will move to Stage 2 of resuming research, which includes safely resuming academic research programs and activities.

Research is a critical component of the academic mission of the University and has beneficial impacts to society at large as well the Providence and Rhode Island economies. Accordingly, resumption of laboratory-based research — in a manner fully consistent with the best and current public health guidance, the guidance and direction of the State of Rhode Island, and the University’s [COVID-19 Campus Safety Policy](#) — continues to be a high priority, for Brown and our local, regional and national community.

Should public health guidelines change or otherwise require the University to implement precautions and protocols that impact Stage 2 parameters, or if the University determines that continuing with Stage 2 is not in line with its policies, the University will adjust the Stage 2 parameters accordingly or, if necessary, return to Stage 1. Any decisions to adjust Stage 2 parameters or return to Stage 1 will be communicated to the research community, along with revised procedures for research resumption.

Stage 2 guidelines will provide more detail on the following updates:

- (1) Population density
- (2) Social distancing
- (3) Human subjects research
- (4) Field research
- (5) Undergraduates in labs
- (6) Computational labs and research meetings
- (7) Training of students in labs

Research Continuity Committee Members

Jeffrey Bailey - Pathology and Laboratory
Medicine; Covid Research Task Force

Laurent Brossay - Molecular Microbiology
and Immunology

Amy Carroll - Office of Research
Development, OVPR

Rafael D. González-Cruz - Molecular
Pharmacology and Physiology

Edward Hawrot - Division of Biology and
Medicine

Greg Hirth - Earth, Environmental, and
Planetary Sciences

Lawrence Larson - School of Engineering

Kiara Lee - PhD Candidate, Center for
Biomedical Engineering

Bess Marcus - School of Public Health

Katherine Manz – School of Engineering

Stephen Morin - Environmental Health and
Safety

Nicole Picard - Office of General Counsel

Jill Pipher - Office of the Vice President for
Research

Jennifer Tidey - School of Public Health

Rebecca Thorsness - School of Public Health

Alastair Tulloch - Division of Biology and
Medicine - Neuroscience

Leah VanWey - School of Professional
Studies, Institute at Brown for

Environment and Society, Sociology

Lai-Sheng Wang - Chemistry

Gang Xiao - Physics

II. GUIDING PRINCIPLES¹

Overarching Goal: To protect the health and safety of the Brown community, while increasing research activity in a staged approach.

Our framework is informed by the following principles.

Principle #1: *Follow the relevant local, state, and national public health authority directives.*

- **Background:** On April 27, 2020, the state of Rhode Island released “[Reopening RI: Charting the Course](#)”, which outlines a phased approach to reopening businesses and community interactions in Rhode Island.
- **Background:** There also is a [White House Plan for Opening up America Again](#).
- **Considerations:** Brown recognizes that reasonable accommodations will need to be made for employees with underlying health conditions as necessary and appropriate.

Principle #2: *The resumption of research will be carried out in full compliance with the [Brown University COVID-19 Campus Safety Policy](#) and any other University policies that govern the return to campus.*

Principle #3: *Protect the health and safety of the research workforce and the health and safety of human research subjects.*

- **Safety Considerations:** Safety within laboratories and libraries must be rigorously maintained, with adequate access to personal protective equipment (PPE) and safety-related supplies. Brown Strategic Purchasing, Contracts and Insurance (SPCI) with input from Environmental Health and Safety (EHS) will make available and provide reusable face coverings for researchers. Community members should report behaviors inconsistent or in violation with the Policy to a supervisor, UHS, or other University official. For emergency situations call the Brown Department of Public Safety at (401) 863-4111. Additionally, [Brown’s Anonymous Reporting Hotline](#) allows anonymous and confidential reporting online for matters of concern, or by phone (877-318-9184). However, please note this reporting service does not generate an immediate response. Brown Facilities Management will create and post signage about safety procedures in re-opened buildings.
- **Required Approval:** Principal Investigators will prepare and submit plans for resumption of research. In Stage 2, lab plans that have already been approved and have minor revisions (addition of personnel, for example) will be streamlined.

¹ Adapted for the Brown University community, based on Principles and Framework Guiding a Phased Approach to Restarting University Research Activity developed by University of California, Berkeley in partnership with VCRs/VPRs from the University of California system and the Association of Public and Land-grant Universities, and borrowing liberally from planning documents at many other institutions.

All new submitted plans must be approved by the Provost and Executive Vice President for Finance and Administration. The process for submission of plans is described below in Resuming Work Procedures.

- **Flexibility:** During the staged resumption of work in research labs, all reasonable accommodations and flexible work arrangements should be made consistent with University policies, including the Alternative Work Assignment Policy (AWA Policy) and the Americans with Disabilities Act Policy (ADA Policy). To the extent possible, PIs should work with researchers on suggesting alternative work assignments per the AWA Policy given current home situations (lack of childcare or eldercare, a high-risk household member). Researchers with underlying medical conditions should contact UHR to request an accommodation under the ADA Policy.

Individuals with concerns about their workplace and/or behaviors inconsistent with or in violation of the [COVID-19 Campus Safety Policy](#) and/or this guidance should report those concerns to a supervisor, UHR, or other University official. Graduate students should first contact their department Director of Graduate Studies and also Associate Dean of Student Support Services Maria Suarez in the Graduate School, if appropriate. Staff can consult with their department or center Human Resources Partner.

Postdoctoral Research Associates and Fellows should contact:

- Biomed, [Audra Van Wart](#) in the Office of Graduate and Postdoctoral Studies;
 - School of Public Health, [Nancy Barnett](#) in Faculty Affairs; and
 - All others, [Joel Revill](#) in the Dean of the Faculty office.
- **Travel:** Travel restrictions remain in effect and all researchers must follow University travel guidance.
 - **Human Subject Research:** Best practices and guidelines information are available at the [Human Research Protection Program \(HRPP\) website](#).

Principle #4: *Protect the careers of early stage researchers.*

- **Definition:** Early stage researcher includes assistant professors, postdoctoral researchers, and graduate students.
- **Considerations:** Early stage researchers are at a critical stage in their careers, and Brown recognizes the consequences of reduced access to research spaces on this population. To the extent that it is possible under the public health authority directives, priority to work in research spaces should be given to researchers who cannot work remotely and who are under time constraints to complete degrees, term appointments (e.g., postdoctoral researchers), or for tenure and other career reviews.
- **Post-Docs and Students:** An important part of the mission of the University is providing post-docs, graduate students and undergraduates with the opportunity to do research. Nevertheless, in spaces where reduced population density constraints make choices necessary, priority is given to post-docs and graduate students who need access to labs or field sites to complete their degrees. Faculty who wish to involve undergraduates in research in labs must demonstrate these plans are consistent with these priorities.

Accordingly, there is an additional requirement for PIs/faculty lab leaders to obtain approval to involve undergraduate researchers in labs. Lab plans need to clearly articulate the role of each undergraduate student proposed to work in labs. Examples of considerations that may lead to approval include, but are not limited to, the following: completion of thesis work by the undergraduate, completion of necessary work for a grant deadline or grant submission, and essential work in support of graduate student's or post-doc's work.

The guidelines established in Stage 2 regarding training of students applies to undergraduates, namely: If in-person training for researchers in a lab is unavoidable and required, lab plans must provide information on the training and demonstrate that all lab members involved in the training have agreed on how the training will be conducted and who will be involved. Any graduate students or post-docs involved in the training of undergraduates in labs must be informed about Brown guidelines, and volunteer to be involved in the training. Lab plans must keep a record of notices that ensure that all participants in training, including trainees, voluntarily agreed to engage in the training.

Principle #5: *Implement a fair and transparent process for resuming lab-based research.*

- **Building Access Priority:** Priority building access will be given to researchers who cannot perform their research remotely.
- **Workspace Density:** The number of people in a workspace must be limited. EHS and Facilities Management will help support two work shifts on each of seven (7) days available (wherever possible) to facilitate separate shifts and staggered work days. While physical distancing and reduced occupancy are critical during the resumption of lab-based research, the safety of lab personnel must be ensured and precautions adhered to when working alone. All lab personnel will additionally be required to be familiar and comply with the [COVID-19 Campus Safety Policy](#), including, but not limited to, all requirements regarding social distancing, face masks and coverings, and individual responsibility when sick or feeling sick. All researchers approved to return to campus will receive information about and be required to comply with and acknowledge Brown's policies regarding COVID-19.
- **Resuming Work Procedure Overview:** Please see Resuming Work Procedures for detailed instructions. In brief, individual faculty must update or create a reopening plan for their labs. These plans will be reviewed by department chairs or research center directors and the appropriate Research Continuity Building Subcommittee. New plans will be recommended for approval to the Provost and Executive Vice President for Finance and Administration.

Principle #6: *Ensure as rapid a resumption as the public health conditions, applicable public directives, and University policies permit.*

- **Safety Considerations:** Reduced density of research personnel in university research spaces is required, with new guidelines. Brown adheres to and requires researchers to follow state guidelines, which advises individuals to engage in social distancing and wear

face coverings. This principle applies in Stage 2. Details about these requirements and special considerations are below in the Resuming Work Procedures section.

Principle #7: *Ensure that viral spread is isolated with minimal impact.*

- **Background:** A key goal is the minimization of the spread at work as well as the impact. A positive test for infection in a single individual may result in quarantine of their contacts and localized shutdown of laboratories and shared resources.
- **Safety Considerations:** All faculty and staff must take personal responsibility for reducing and minimizing their network of contacts and engage in behaviors that reduce and break the spread of COVID-19. Such behaviors include no hand shaking, required face coverings, disinfecting areas and equipment before and after use, social distancing with new guidelines, few passengers at a time on an elevator, and no social gatherings or celebratory events. Further details regarding these measures and the responsibilities of all community members can be found in the [COVID-19 Campus Safety Policy](#).

III. RESUMING WORK PROCEDURES FOR STAGE 2

These procedures apply to Stage 2.

The goal of Stage 2 is to resume all laboratory-based research that can be conducted pursuant to government, public health, and University guidelines and is consistent with building density constraints and other COVID-19 necessitated precautions and restrictions.

Non-Brown-Controlled Spaces

In general, all research occurring in non-Brown-controlled spaces or areas must satisfy and be performed in accordance with the state, local, and other applicable requirements and guidelines in place for the space or area where the research occurs. This includes the public health guidelines of local government(s) and policies of collaborating institutions. This research is subject to all applicable United States, University and local travel restrictions.

Brown personnel (e.g. students, campus-based Biomed faculty) whose essential research occurs in a lab in a non-Brown building must submit a request for approval for the Brown personnel to resume research work. For Brown personnel in Biology and Medicine, these requests should be coordinated through Ed Hawrot, Senior Associate Dean for the Program in Biology (edward_hawrot@brown.edu). For non-Biomed Brown personnel, please contact resuming_research@brown.edu for instructions.

All Human Subjects Research

Some IRB-approved in-person human subjects research may be approved in Stage 2. Best practices, guidelines and information are available at the [Human Research Protection Program \(HRPP\) website](#).

Field Research

Guidelines for Field Research in Stage 2 take into account the Stage 2 social distancing constraints as well as Brown University and State of RI guidance on travel. More information is provided at the [Resuming Research website](#).

Social Distancing/Lab Density Guidelines for Research

As noted above, the University has issued the [COVID-19 Campus Safety Policy](#), and all approved research programs and activities must fully comply with that policy. Research-necessitated in-person meetings may be approved on a limited basis as a part of research and lab safety plans. These exceptions do not need to be approved on a case-by-case basis, but must be justified in lab safety plans.

- Regarding scheduled/work-shift access, allow 2 shifts per day, 7 days a week with a buffer or staggered timing to minimize interaction in common areas, building and lab entrances. Consider creating A/B research teams in the event of quarantine restrictions on the contacts of an infected individual.
- Use google calendar for scheduling use of individual lab entrance, core facilities and research support space as needed.
- Density guidelines are 1 researcher per 150 ft². Exceptions can be made depending on size and configuration of research space and the nature of activity therein.
- Lab personnel should maintain 6 feet of separation. Unavoidable proximity of less than 6 feet for required research activities (equipment moving, human subject research at MRIs, for example) should be limited to less than 15 minutes and all personnel must wear face coverings. Brown does not require or encourage researchers to work closer than 6 feet for periods of longer than 15 minutes.
- If researchers encounter situations that involve two or more individuals working closer than 6 feet for longer than 15 minutes, the researchers may voluntarily choose to work in these situations. The researchers should discuss any concerns with their supervisors and contact EHS at safety@brown.edu to conduct a risk assessment. If the assessment recommends or allows use of additional personal protective equipment (PPE), such as N95 masks or face shields, researchers understand that such use is voluntary, does not supplant public health guidelines, and will not completely eliminate risks related to COVID-19. Any activities researchers undertake while voluntarily using additional PPE are at their own risk. PIs should discuss these plans with their research team prior to submission to ensure those working in close proximity are comfortable with the plans.

Computational Labs and Group Research Meetings

Research meetings that can be held remotely should continue to be held remotely. Notwithstanding that principle, the University recognizes that the effectiveness and capacity of remote research may be insufficient to meet sponsored research milestones and deadlines. Some group meetings, with all researchers spaced at least 6 feet apart and wearing face coverings, will be permitted in Stage 2. Lab plans that assert that group meetings are essential to carry out timely research must minimize the number of such meetings, limit the size of the group to 15 people, include plans for spaces large enough to accommodate such meetings while adhering to social distancing guidelines, and provide an option for the researchers in the group to participate remotely upon request. Any researcher in the group must be given the opportunity to participate remotely with no explanation.

Computational labs may be approved to reopen under these conditions: (i) the lab plans are consistent with Stage 2 population density and social distancing constraints, and (ii) the plans are consistent with building population densities.

Training of Researchers in Labs

The training of researchers in labs has traditionally required proximity of less than 6 feet, for various intervals of time. Researchers should seek alternate methods of training that avoid close proximity, even for less than 15 minutes. Alternate methods of training might involve video demonstrations or might take place on two sides of a plexiglass divider if available. At all times, the Stage 2 guidelines on social distancing/lab density specified above in Section III should be followed. If in-person training for researchers in a lab is unavoidable and required, lab plans must provide information on the training and demonstrate that all lab members involved in the training have agreed on how the training will be conducted and who will be involved.

IV. PROCESS TO REQUEST STAGE 2 WORK IN A LAB ALREADY APPROVED IN STAGE 1

Faculty who have submitted and received approval for lab plans in Stage 1 must update these plans if the research will incorporate Stage 2 parameters, such as additional personnel or increase in number of people working in the lab at the same time. Departments will be responsible for updating the plans in the Google Sheet provided to them.

Faculty should provide updated information on new personnel and lab density changes to their department manager and chair, or in the case of SPH the center director and center administrator, for review and approval. The information entered in the Google sheet by their department will be **submitted via [Google Form](#)** to resuming_research@brown.edu for review

by the relevant building subcommittee and by Environmental Health and Safety, and then for approval by the Vice President for Research. Faculty will be notified by OVPR when their updates have been approved. Researchers approved to work in labs will be required to sign the [COVID-19 Campus Safety Policy](#) Acknowledgement Form and complete any required training associated with the Policy before they can return to campus to work.

Please check with resuming_research@brown.edu if you have questions about whether your updated plan is eligible for this streamlined review.

V. PROCESS TO REQUEST RESUMING WORK IN A LAB FOR NEW OR PREVIOUSLY UNAPPROVED PLANS

Faculty should provide a Lab Density Sheet ([link to template](#)) and a Justification narrative to their department manager and chair, for review and approval. **If seeking to add undergraduates, faculty must provide required information per the guidelines in Principle 4 and must obtain approval.** Departments will enter this information into the Google sheet and Google folder provided to them by resuming_research@brown.edu **and submit the updated materials via [Google Form](#).** It will be reviewed by the relevant building subcommittee and by Environmental Health and Safety, and the Vice President for Research, and then approval by the Provost and Executive Vice President for Finance and Administration. Faculty will be notified by OVPR when their updates have been approved. Researchers approved to work in labs will be required to sign the [COVID-19 Campus Safety Policy](#) Acknowledgement Form and complete any required training associated with the Policy before they can return to campus to work.

The Justification must be a 1-2 page narrative description of the research work to be performed and justification for resuming work. The description and justification must include the following sections. The file must be named DEPARTMENT/CENTER_PI LAST NAME_JUSTIFICATION:

- Description of the research to be done.
- Justification for resuming work in the research space
- List of personnel who will work in the research space, **including required information for inclusion of any undergraduate students:**
 - 1. What is the proposed role of the undergraduate student in the lab group and what is the nature of the student's position (e.g., independent study enrollment, senior thesis student, paid work, voluntary work)?**
 - 2. How does the contribution of the undergraduate student contribute to research goals of the lab group (e.g., contribution to data for grant proposals, publications, support for graduate student thesis research or postdoctoral fellow support, technical lab support, etc.)?**
 - 3. How does adding the undergraduate student to the lab's density plan impact the other lab members' access to the space (e.g., what are the student's hours relative to others, etc.)?**

- 4. Will graduate students, postdoctoral researchers and/or research staff be involved in the training, mentoring, or supervision of the undergraduate student? If so describe the nature of this responsibility, the training conditions (eg remote training, training while maintaining social distancing, training that requires work less than 6 feet apart for longer than 15 minutes), and the protocol for the training.
 - 5. Any graduate students, post-docs or research staff involved in the training of undergraduates in labs must volunteer to be involved and sign a notice affirming their voluntary participation in training. PIs must maintain copies of the attestations in lab records and approve of the plan. This notice will be provided upon approval of the lab plan.
- A plan to scale back the work to meet Stage 1 Guidelines if necessary, and if possible.
 - Lab Safety Plan
 - Description of the social distancing plan for your research space consistent with the [COVID-19 Campus Safety Policy](#). You can find a [checklist](#) to help you consider what to include in your lab safety plan on the EHS website.
 - Safety plan for any personnel who will work alone
 - Contact Tracing plan (log, shared google sheet, etc.)
 - All plans submitted to OVPR requesting to resume in-person, on-campus human subjects research activities must include [these minimum requirements](#)
 - Any additional information related to safety for the research space

EHS and OVPR will maintain copies of all approved research resuming work plans.

VI. APPROVAL PROCESS

When your department's stage 2 plans are ready for review, please notify OVPR via [this Stage 2 Resuming Research Google Form](#). Materials will be reviewed by the Research Continuity Committee, and for new submissions the Provost and Executive Vice President for Finance and Administration. Reviews will occur periodically through August and take 3-7 days following the submission deadlines. The deadlines to submit are:

- Noon (12:00 pm) Friday, July 10
- Noon (12:00 pm) Friday, July **24**
- Noon (12:00 pm) Friday, August 7
- Noon (12:00 pm) Friday, August 21
- **Noon (12:00 pm) Friday, September 4**
- **Noon (12:00 pm) Friday, September 18**
- **Noon (12:00 pm) Friday, October 2**
- **Noon (12:00 pm) Friday, October 16**
- **Noon (12:00 pm) Friday, October 30**

- Noon (12:00 pm) Friday, November 13
- Noon (12:00 pm) Friday, November 20
- Noon (12:00 pm) Friday, December 4
- Noon (12:00 pm) Friday, December 11 (adjusted to allow time for approvals prior to the winter break)

VII. MRF FACILITY SPECIFIC PROCESS

Standard requirements for conducting research in the MRF include that all research groups must have IRB (for human subject research) or IACUC (for vertebrate animal research) approval before their studies can commence. Additionally, the MRF's Scientific Advisory Committee reviews all potential research projects, those involving humans, experimental animals, or materials, for safety and feasibility, before a study can commence. Lastly, all laboratory personnel must have undergone MRI Safety training, with at least one laboratory staff member achieving Level 2 status, before a study can commence.

Under Stage 2 of Resuming Research, all requests to resume ongoing use of the MRF must be approved by both OVPR and the MRF. PI's must submit a narrative justification via email to resuming_research@brown.edu and to MRIResearch@brown.edu. Please use the subject line "MRF User Request | PI LAST NAME". Per the [MRF Stage 2 Safety Plan](#) and [Brown University Stage 2 Resuming Research Guidelines](#), please include the following information:

1. Description of the research to be done.
2. Justification for resuming work in the MRF.
3. Proposed times (e.g., M-F or weekends) and personnel (names, institution, status, e.g., graduate student, faculty, research assistant, etc.) who will work in the MRF
4. Whether your lab will require MRF staff to operate the scanner or whether your lab has a Level 3 trained operator. Indicate percent MRF vs. lab Level 3 operator.
5. Estimate number of Human Research Participants and the likely frequency of use (per week, per month, etc.). If no humans will participate in your research, indicate whether you'll use experimental animals or materials for imaging, as well as the frequency of use.
6. Indicate in your plan whether you will need to use the Behavioral Testing Room of the MRI Simulator Room, and if yes, indicate the frequency that you intend to use either of these two rooms.
7. Attestation that the PI and research team have read the MRF guidelines and that while using the Brown facilities, they will adhere to the currently approved MRF research plan pertaining to human subjects even if it is more rigorous and constraining than their home plans.
8. Non-Campus Based Researchers: narrative section verifying that the home, non-Brown institution has a process in place to evaluate whether the proposed resumed research activities conform with current state COVID-19 guidelines.

Appendix A

Research Continuity Building Subcommittees

Subcommittee	Buildings	Members (*lead)
Physical Sciences and Engineering	131 Waterman Barus and Holley Barus ERC Prince Lab GeoChem Lincoln Field MacMillan Medical Research Lab	Larry Larson* Gang Xiao Lai Sheng Wang Greg Hirth
School of Public Health	1 Davol 121 South Main	David Savitz Jennifer Tidey*
Biomed	Arnold Lab Biomed Center Sidney Frank 70 Ship	Ed Hawrot* Laurent Brossay
IBES	85 Waterman	Dov Sax* Leah VanWey
164 Angell	164 Angell	Diane Lipscombe* Sohini Ramachandran Bjorn Sandstede
CLPS	Metcalf	Rebecca Burwell* David Badre
CS	CIS Science Library 180 George	Ugur Cetentinel Jill Pipher
Applied Math	170 Hope	Yan Guo Jill Pipher