Tufts University Department of Chemistry  
Phase I Policies for Research-Related Activities  
Revised June 7, 2020

Tufts plans to take a phased approach to the resumption of on-campus operations, characterized by Phases 0, 1, 2, 3, and 4 (R2C, p. 4). More detailed characteristics of Phase I, the initial resumption of on-campus lab-based research, appear at:  
https://viceprovost.tufts.edu/covid-19-information/covid-19-research-ramp-up/ramp-up-news/

This departmental document describes the Chemistry Department’s plans for Phase I resumption of research, and it applies to all research groups. An ad-hoc committee of seven Chemistry faculty developed this plan, with the guidance, input and approval of the full Chemistry Department faculty.

A second document contains building specific SOPs that apply to all building occupants.

A third PI-specific document includes details specific to that group's members, lab location, and the nature of their research. A PI's complete ramp-up plan should be viewed as a combination of this departmental plan, the building SOP document, and his or her individual ramp-up plan.

This document relies on Massachusetts and CDC guidelines, as well as Tufts University guidance for Phase I research resumption on topics that include building entry and health checks, PPE and mask types and use, biosafety guidelines for COVID-19 research, use of animal facilities, current human subjects guidance, and staffing options, including challenges and obstacles, medical conditions, and transportation issues. Policies for infection control are in development.

The most current Tufts guidance can be found at the OVPR website:  
https://viceprovost.tufts.edu/covid-19-information/covid-19-research-ramp-up/

and in the Tufts Return to Campus (R2C) Guide:  

Guidance on infection control in Tufts Laboratories will be posted at:  
https://viceprovost.tufts.edu/covid-19-information/covid-19-research-ramp-up/infection-control-for-tufts-laboratories/

All Chemistry Department plans are intended to be consistent with these University Policies. In the event that any of the policies/procedures described in Chemistry Department or Individual ramp-up plan differs from those provided by OVPR/TU, the guidance in the OVPR/TU documents will be followed. This policy applies to all Chemistry PIs and need not be replicated in their individual ramp-up plans.

The University, in cooperation with state and local government agencies, will determine when Phase I of research activity can resume (R2C, p. 4). In Phase I, laboratory research that can only be performed on-site will resume under conditions that maximize safety and keep building occupancy to a minimum. Phase I guidelines will remain in place until further notice from the University. These guidelines may be modified as circumstances dictate and in response to additional guidance from Federal and State authorities, and the University.

The department's priorities reflect those of A&S:

Compliance with government and university guidelines.
Importance of the safety of all employees, students, and others engaging in research or entering research facilities.
Adhering to equity and inclusivity practices of the university and ethical practices in decision making.
Maintaining accountability and transparency with researchers and the administration.
Responding to changes in University guidance, updating policies, as necessary, and communicating these changes immediately to researchers, faculty, and staff.

1. **Preparing the safety of the research space:**
   a. PI’s will include a plan for resumption of work as part of their individual ramp-up plan. This plan should identify any safety checks, instrument validations, or other actions unique to their lab and necessary to ensure the lab is a safe working environment. This individual group plan is a supplement to the general ramp-up checklist provided by OVPR. [https://viceprovost.tufts.edu/wp-content/uploads/Research-Ramp-Up-Checklist.pdf](https://viceprovost.tufts.edu/wp-content/uploads/Research-Ramp-Up-Checklist.pdf)
   b. Hoods: EH&S is reviewing certification of all hoods. Those no longer in compliance will be prioritized for recertification once on-campus activity resumes. Those requiring recertification in the near future will be addressed next. (All chemistry hoods were recently recertified, so there will be no need for further action, other than user verification of hood operation upon re-occupancy.)

2. **Location and size of research space to be used in Phase 1**
   a. PI’s will specify the square footage and room number of dedicated and shared research spaces they will use in Phase 1 as part of their individual ramp-up plan.

3. **Information on individuals returning to on-site work.**
   a. Each PI will provide a list of lab personnel who will require on-campus access in their individual ramp up plan. The list will include names, the number of hours, and an estimate of the percentage of their work that can still be performed remotely (see c. through f. below.)
   b. University, Departmental and PI approval will be required before an individual may return to work on-site. There is no obligation for any individual to return to on-site work, or to continue on-site work if circumstances change. The decision to return to work is a personal decision to be made by each individual. Throughout Phase I and beyond, we will continue to support work-from-home as a viable option for any worker, for any reason. Additional details appear at: [https://viceprovost.tufts.edu/covid-19-information/working-remotely/](https://viceprovost.tufts.edu/covid-19-information/working-remotely/)
   c. In Phase I, the total number of people who are working in the Pearson/Michael complex and individual laboratories will be kept to a minimum. Students who do not need research for their degree (MS students and undergraduates) will not be allowed to work in the lab. Staff and faculty who can perform their duties remotely will continue to do so.
   d. All portions of research that do not require on-site work or communication should be done remotely. This includes reading and discussing literature, computational work, data analysis, discussion of data, detailed experimental planning, and research meetings.
   e. The CDC has advised that individuals with specific conditions that place them at higher risk for serious complications from COVID19 should not return to on-site work. (R2C p. 7)
   f. Individuals should avoid public transit to commute if at all possible. The Department Chair and Department Manager will work with individuals to identify and enable alternate means of commuting, wherever possible. (R2C p. 13)

4. **COVID-19 protocol awareness and training.**
   a. Prior to resumption of lab-based work, the department will hold an information session on Phase I protocols via Zoom. This session will be required for all lab personnel returning for on-site work. The contents of this ramp-up plan, and the Pearson-Michael Building SOP will be reviewed and explained, and questions will be answered. Attendance will be noted, and a
follow-up session will be scheduled for those unable to attend. This requirement must be fulfilled prior to the returning to campus.

b. Each PI will hold an information session with their own research group to review and clarify lab-specific COVID-19 protocols as well as any special logistics associated with the use of shared spaces or departmental instruments. The group's emergency response SOPs will also be reviewed at this time. The PI will record attendance at this meeting and forward it to the department manager, who will track compliance. 

As long as these items are covered in the PIs group meeting there is no need for a further description in the individual PI plan.

c. The department will compile a list of returning researchers and will note the date of these training sessions and affirm each returning individual's attendance at these training sessions.

d. Each individual returning to work must take the Return to Tufts Campuses Course, which includes an acknowledgement form that they have read and agree to abide by the Return to Campus Guide.


The Return to Tufts Campuses Course can be found in the learning center site via the link.

http://learncenter.tufts.edu/

e. R2C p. 8 describes additional training and acknowledgement requirements that must be fulfilled prior to returning to work.

f. Adherence to the protocols described in this document and in the individual research group SOPs will be strictly enforced. Details appear in the Pearson-Michael Building SOP document.

g. Policies for enforcement will be explained to researchers as part of the department-wide information session.

5. PPE, masks, and infection control procedures.

a. To minimize risk of infection, all researchers will be required to use appropriate PPE for their laboratory research, and any additional PPE, including masks, as mandated by government agencies or the University. University guidance can be found at


b. The University will purchase disposable surgical masks that fulfill mandated mask guidelines and provide them to research groups that have been approved to resume work in Phase I. (R2C p. 9-10) The masks will be distributed to research groups, but only after that group has received approval to resume research. These masks must be worn in the laboratory.

c. The Department will continue to stock other standard PPE (including gloves (R2C p. 12) and safety glasses/goggles) for use by research groups.

d. PIs should communicate any research-specific PPE needs other than standard gloves and eyewear to the Department, and the Department will work with the PI to obtain this specialized PPE.

e. Lab coat laundering will continue to be provided and supported by the department.

f. Additional PPE and infection control measures are necessary for research on the SARS-COV-2 virus. Biosafety Guidelines for this type of research is at:

https://viceprovost.tufts.edu/covid-19-information/covid-19-research-ramp-up/

g. The Department will continue to promote healthy hygiene practices. Frequent hand washing, including upon entering or leaving the laboratory, is encouraged. (R2C p. 12)

h. Labs are expected to identify at least one individual who will be responsible for coordinating shipping and receiving of materials and supplies.
i. Cleaning of shared research counters, equipment, computers, and bench surfaces between uses is required. A&S encourages labs to keep logs of cleaning and use for the purpose of contact tracing.

j. Coordination of common area cleaning schedules of lab floors, or requests to prohibit lab entry by facilities for cleaning will be communicated to C&W via the EADs Office.

k. Additional infection control procedures related to physical distancing, disinfection, and symptom monitoring are detailed in sections 6, 7, and 8, below and at https://viceprovost.tufts.edu/covid-19-information/covid-19-research-ramp-up/infection-control-for-tufts-laboratories/, and on pp. 9-12 of R2C.


a. Maintaining and monitoring occupancy limits in the building and in individual rooms is important for both pandemic safety and laboratory safety (R2C p. 8). As a result, the department will have procedures in place to monitor building occupancy. The details of this policy may change in response to additional guidance or alternative procedures provide by the University.

b. Individuals will enter the building via the West (nearest Dewick) first floor entrance door. Swipe card access will provide a record of building entry. This will allow for appropriate response to research accidents or emergencies and assist with contact tracing efforts.

c. Individuals will self-report when they arrive and leave their workspace (typically lab) on a separate sign-in sheet (or, alternatively, an online tool such as Slack). The purpose of this sheet is to identify those present in case of an emergency, to help monitor room occupancy, and to facilitate contact tracing, should a lab occupant have a positive, or presumed positive test for COVID-19. The log will be reviewed periodically by the PI to ensure accuracy and to monitor proper room occupancy.

d. In consultation with the Department Chair, PIs will determine safe occupancy levels for each laboratory room required for their group’s use during Phase I.

e. These safe occupancy levels will reflect an understanding that a minimum number of individuals should be allowed in the space, while still ensuring chemical and laboratory safety. These determinations will be based on square footage, the extent and type of use, and typical workflows of the planned research in that space. The general guidance is to start with 1 person per roughly 250 square feet, but then to take into account the specific research locations (benches, hoods) where those researchers will typically reside, as well as typical research workflows for the specific room. These maximum safe occupancy levels should ensure that, throughout all planned experiments, researchers can maintain at least 8-10 feet of distance from other workers.

f. The PI’s will report the square footage and occupancy levels for their labs, (or for their portion in the case of a share labs), as well as their plan for using physical distancing and temporal scheduling (R2C p. 5) in their individual PI ramp-up plans.

i. Safe occupancy levels for rooms in which researchers from two or more labs routinely work will be discussed and agreed among the relevant PIs, following the above guidelines.

ii. Final determination of maximum safe occupancy levels for each room will be subject to Departmental, GSAS, and OVPR approval.

iii. PIs may be asked to reduce the safe occupancy levels for specific rooms to ensure adherence to federal, state, or University guidelines for room occupancy or total building occupancy.

g. At PI discretion, shifts may be worked out to increase overall research productivity without exceeding the safe occupancy levels determined above.
h. If a researcher is working alone due to occupancy restrictions, that individual and their PI should arrange ahead of time to minimize all possible hazards, and to maintain communication with someone in the building to maximize safety.

i. If a procedure requires prolonged work by two or more researchers closer than six feet:
   i. Workers performing such a procedure must request an exception in their opening plan. Granting of the exception is dependent on the availability of proper PPE to allow close contact. During Phase I, granting of exceptions will be limited to critical experiments that cannot be performed under social distancing.
   ii. If training of new researchers or teaching new skills is critical, cannot be deferred to Phase II, and requires a separation of less than 6ft, please consider using streaming or the record and evaluate single run method for critique by the trainer. Otherwise refer to i) above.

j. PIs should communicate with the department their expected usage of common instrumentation (such as instruments in the analytical lab, NMR room, EPR room, UV/vis and fluorimetry room, and mass spectrometry room) and instruments in other PIs' labs that they use frequently. This should be communicated in terms of how many hours per day, and in which rooms, they use common instrumentation. This information will be used to determine which instruments/rooms require online sign-up procedures (see section 6 below). For rooms that do not require online sign-up, researchers will use those rooms only if doing so does not exceed the pre-determined safe occupancy level.

7. Cleaning and sanitation/disinfection of research spaces (R2C p. 12 & OVPR Website).
   a. The Department will distribute supplies for disinfection of workspaces. A list of approved disinfectants and a link to additional options appears on p. 3 of https://viceprovost.tufts.edu/wp-content/uploads/Face-Masks-PPE-Guidance.pdf
      All cleaning protocols will meet or exceed List N on the EPA website https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2
   b. Additional guidance for Infection Control in Tufts Laboratories will be provided at https://viceprovost.tufts.edu/covid-19-information/covid-19-research-ramp-up/infection-control-for-tufts-laboratories/
   c. The Department will post university approved protocols for disinfection of shared workspaces, including computers and other shared equipment.
   d. All spaces used by a single researcher will be disinfected by that researcher before use and before leaving for the day. All shared instruments or spaces will be disinfected by researchers before and after use.
   e. When a researcher logs that they are leaving for the day (see section 6 above), they will also affirmatively log that they have disinfected all workspaces that are not exclusively for their personal use, according to the protocols provided by the department.
   f. The Department will coordinate with C&W via the EADs office to schedule more frequent cleaning and sanitation of spaces and surfaces, including in rest rooms and other common areas.
   g. The Department will work with Facilities to provide building occupants with guidance on existing ventilation of spaces, and to explore ways to increase ventilation, if possible and appropriate.

8. Monitoring ongoing health of lab personnel / symptom monitoring.
   a. All individuals returning to work on campus must conduct symptom monitoring every day before reporting to work and in accordance with the guidelines listed on R2C p. 6. Additionally, prior to arriving on campus each workday, faculty and staff, including postdoctoral scholars and doctoral students, will need to complete a Daily Health Screening Survey to attest
that they are not experiencing any symptoms of COVID-19 or have recently come into contact with someone who is confirmed to have COVID-19. Upon completing the survey, individuals will immediately receive an email confirming whether they can come to campus. Those approved to come to campus will forward the email to their supervisor (typically PI). In addition, they may be required to show the email to a school administrator, supervisor or building security guard upon arrival. The survey can be accessed via:

https://covidscreening.tufts.edu
Tufts mobile app
the Healthy @ Tufts portal (Daily Healthy Status Survey)

b. Each researcher in the group will forward their confirmation email generated by the TTS app to their supervisor (typically PI) each day. The PI will cross check these emails with the log-in sheets online or in lab and will address any discrepancies. He or she will also note any occurrences of lab occupancy limits being exceeded. Discrepancies will be reported to the Department Chair, and the Chair will support the PI in addressing any problems.

c. By returning to work an individual is certifying that they are symptom-free, and they agree to adhere to the health and safety policies contained in the Return to Campus Guide. (R2C p. 8) This second assurance is provided by completing the Return to Campuses Course.

d. Individuals who are exhibiting symptoms that are consistent with potential infection must not report to work. (R2C p. 6) We all need to understand that maintaining research activity in the department will require all of us to exercise caution and prudence. Individuals who have had COVID19, as judged by a positive test or were presumed positive and asked to self-quarantine, may not return to work until cleared by a medical professional or until their self-quarantine period is complete.

The overall guideline is: When in doubt, don’t come in to work.

e. If you develop symptoms or come into close contact with a person who has COVID-19, (or is suspected to have COVID-19), you should email (covid19@tufts.edu) as soon as possible. This will allow the university to take appropriate steps to clean and disinfect your workspace and alert coworkers to any potential exposure.

f. The Department will monitor employee absences and will have flexible leave policies and practices to accommodate adherence to these guidelines.

g. These guidelines will be communicated to the department during the departmental research ramp-up presentation. Attendance will be recorded by the department. Individual PIs need not address these procedures in their individual group ramp-up plans.

9. Emergency plans / contingency plan for having a positive or presumed positive COVID-19 test

a. The department's standard operating procedures for dealing with building or lab emergencies will remain in effect.

i. One exception follows: In case of a situation that requires building evacuation, all personnel in the building will muster on the patio in front of the Student Center on Talbot Avenue, which has enough room to maintain social distancing. Room-based logs will be checked against in-person attendance at the muster point to ensure all individuals logged as in the building have evacuated.

b. Department and lab-specific SOP's are a standard part of our EHS approved chemical hygiene plans. Lab personnel will be reminded of these policies by departmental and lab-specific safety officers as part of the training described in Section 4 above.

c. Additional plans will guide response to a COVID-19 related emergency, as follows:

d. Any member of the Chemistry Department with symptoms, or a positive, or presumed positive test for infection will report this via email to covid19@tufts.edu.
e. The Department will support contact tracing efforts by sharing information regarding any individuals that may have been co-localized with the affected individual, and the rooms in which they worked.

f. All workers who were co-localized with the affected individual will follow the guidance provided by university or government officials.

g. The University will take appropriate steps to clean and disinfect the workspace of the infected individual.

h. If additional positive tests or presumed positive tests are detected within the department, or other evidence suggests community spread within the Department, the Department and University will coordinate on a response. This could include an immediate, short notice ramp-down of on-site research in the Department (see section 11).

10. Logistics for shared space and facilities.

a. For research labs that house two or more research groups, each PI’s individual plan lists the square footage of the space assigned to their group along with the maximum occupancy for their group in that space. The PI’s in each shared lab have coordinated their plans, using temporal scheduling and spatial separation, and by relocating equipment or workstations as necessary so that all actively used workstations are separated by at least 10 ft. This separation permits each researcher adequate room for movement required to perform work without compromising the minimum 6 ft separation between individuals.

b. To eat meals, researchers may use empty office space, empty conference rooms, outdoor spaces, and empty classrooms, in addition to typically used lounges and lunchrooms (R2C p. 14). Maximum safe occupancy levels based on CDC/OSHA guidelines will be posted outside of all rooms in Pearson/Michael based on their square footage. Researchers are expected to maintain at least 10 feet of distance from one another while eating meals. After eating, researchers must disinfect the space(s) they used using an approved disinfectant (Section (R2C p. 12). Researchers should avoid excessive socializing or lingering during or after meals.

c. If a visit from an external service provider is deemed necessary, the PI will arrange the visit in a manner that complies with the maximum safe occupancy levels specified for each individual room. PIs will ensure that any external service providers are wearing masks, practicing social distancing, and following all state, local and University guidelines for working safely.

d. Emergency visits to lab spaces by Tufts Facilities and Safety personnel will be coordinated with the group to ensure maximal possible adherence to physical distancing and lab occupancy guidelines. At the group’s request, a central contact person in Chemistry will coordinate planned lab visits in advance with the relevant group’s PI, or his or her designee.

e. Essential Departmental operations will be executed in compliance with safe occupancy guidelines and while maintaining social distancing. These operations include safety training for new researchers, instrument training and maintenance, servicing of instrumentation and facilities, and delivery and distribution of research supplies, PPE and masks.

f. Each restroom in the Pearson/Michael complex will be single occupancy.

g. The department will maintain online sign-up documents and protocols for common spaces, including the NMR room, mass spectrometry room, and cell culture room. Sign-up protocols will ensure that there are at least 10 minutes in between user slots to avoid incidental contact. These common spaces will be disinfected by each user before and after use according to the University-approved protocols posted on each instrument. A protocol appropriate for the specific instrument/device/surface will be chosen from the university approved lists referenced in Section 7.

h. The building elevator will be single occupant only.
i. Elevators serve the whole building and will also be used by construction workers during the Michael renovation. Researchers and department staff are encouraged to use the stairs whenever possible.

j. Pearson Hall has two staircases; the East (nearest Jackson Gym) staircase will be designated and labeled as a “down staircase” and the West (nearest Dewick) will be designated and labeled as an “up staircase”.

k. The staircase in the Michael building is part of the construction area and will not be accessible to Chemistry personnel.

l. Shipping and receiving will be handled in a way that minimizes close contact of individuals. Shipping labels will be available for pickup in a designated common area. Recipients will be notified of incoming packages via email, and will pick up packages from an unmanned room.

m. An online schedule and signup sheet will create temporal distancing for researchers who need access to the stockroom, solvent room, and waste room.

n. As additional logistical challenges are identified, the department will coordinate with PI's to facilitate logistics in a safe and workable way.

o. Additional building logistics associated with traffic flow and general building policies appear in the document, 2020 Phase I Pearson Michael Bldg SOPs.pdf

### 11. Short notice research ramp-down plan.

a. OVPR has provided a general checklist to guide laboratory research ramp-down. [https://viceprovost.tufts.edu/wp-content/uploads/Tufts-Ramp-Down-Check-List.docx.pdf](https://viceprovost.tufts.edu/wp-content/uploads/Tufts-Ramp-Down-Check-List.docx.pdf)

b. To streamline any need to ramp-down research in Chemistry on short notice, individual PIs will have a shut-down plan that details how research can be ramped down as quickly as possible in their labs. It should identify:
   i. Reagents, flammables, and other materials that must be stored properly for medium- or long-term research shutdown
   ii. Ongoing or planned experiments that cannot be terminated within 2-3 days
   iii. Instrumentation that requires more than 1 day to shut down, or that cannot be completely shut down under short notice
   iv. Methods for storing data safely and accessing it remotely
   v. Any potential need for minimal levels of periodic on-site check-ins.

c. PIs will work with the Department and appropriate University offices including the Office for Environmental Health and Safety and the Institutional Biosafety Committee to address all the issues identified above as rapidly as safety allows.

d. The department instrument specialist will use the OVPR shutdown checklist shut down or stabilize departmental instruments.

e. Once research ramp-down is complete, a minimal on-site presence in laboratories may be required and will be authorized on a case-by-case basis. Such daily or weekly check-ins would primarily be allowed to maintain instrumentation that could not be shut down completely or that require periodic check-ins or maintenance. Any need for this exception will be identified in the PI's individual research plan.

f. The OVPR and Research Dean will determine when, and in what form, research can resume and will coordinate with the department to carry out an appropriate research ramp-up plan.