Research Processes during the COVID-19 Pandemic

School of Biological Sciences

A Summary Report

Compiled by Melinda Gormley and Justin Sarkis of the Research Development Office
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# School of Biological Sciences’ Research Processes during the COVID-19 Pandemic

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Summary

The COVID-19 pandemic limited research at the University of California, Irvine for 16-months from March 2020 to June 2021. The campus transitioned through four phases of research beginning with curtailment in phase 1 and through various degrees of ramp-up in phases 2-4.

This report provides a summary of COVID-19’s impacts on research. The section on research phases during the pandemic describes the research restrictions and allowances over time. The section on BioSci’s research ramp-down and ramp-up processes explains the policies and procedures that the school initiated to ensure safety and compliance. The section on funding opportunities and BioSci’s awards shows one facet of UCI’s mobilization in response to the pandemic and lists grants awarded to BioSci faculty from internal and external sponsors.

The appendix has two sections collating BioSci’s forms and communications. BioSci used various forms to guarantee that faculty and other researchers understood and instated the necessary safety protocols. BioSci circulated the communications via email to faculty members, staff, graduate students, and postdoctoral fellows. Most forms and communications were available for download from UCI Review and BioSci’s remote website. See Research Resources for Faculty on BioSci’s website.

The School of Biological Sciences and other schools on campus worked closely with the Office of Research and Environmental Health and Safety. The Office of Research held regular meetings from summer through fall 2020 to disseminate information about major changes in operations and to solicit feedback about next steps and concerns. BioSci’s representative with Environmental Health and Safety helped to monitor compliance in spaces occupied by personnel with the school.

The Associate Dean for Research and Innovation, Brandon Gaut, oversaw the research ramp-down and ramp-up processes with substantial support from the Research Development Officer, Melinda Gormley. They worked closely with the Assistant Dean, Benedicte Shipley, to ensure that all forms and communications aligned with UCI’s policies, and with the Marketing and Communications team to send emails and post information on BioSci’s remote webpages. The departmental chairs and director of personnel provided instrumental support as well.
Research Phases during the Pandemic

March 16, 2020 – UCI Campus Shuts Down: Beginning Monday, March 16 UCI staff were asked to work from home for a short period of time. Decisions to continue working from home were released periodically, and staff continued to work remotely for 16 months. Classes at UCI were remote from finals week in winter quarter 2020 through summer quarter 2021.

March 21, 2020 – Phase 1: Research ramp down and curtailment started, and only critical research activity was allowed during phase 1. Critical research allowed the continuation of essential experiments by the essential personnel who carry them out. These activities included clinical trials, research on the SARS CoV-2 virus, experiments where halting them would cause irreparable harm, and experiments where ramping down is prohibited by the terms of a sponsored award. Essential personnel include staff of ULAR and personnel responsible for equipment maintenance that, if not done, could result in damage or high-cost equipment repairs, and staff necessary to maintain research materials that are perishable and not easily replaced. The VCR announced curtailment on Tuesday, March 17 and required shutting down all non-critical research by end of business on Friday, March 20. See Research ramp-down and curtailment and Defining Critical Research.

June 8, 2020 – Phase 2: UCI transitioned to phase 2 research that allowed labs to operate with no more than 30% of pre-pandemic population of faculty, staff and students at a given time. It also stipulated a maximum of one researcher for every 250 square feet. Volunteers or undergraduate students were allowed in the labs initially. See UCI Transition to Phase 2 Research.

September 3, 2020 – Phase 2 Plan Updates: Faculty were allowed to add undergraduate students enrolled in Bio197, Bio198, or Bio199 to their research groups just before fall quarter began. Faculty in BioSci filled out a Bio199 form and appended it to their phase 2 research paperwork in UCI Review.

April 5, 2021 – Phase 3: UCI entered phase 3 that allowed an increase above 30% capacity while continuing to require individuals to stay 6 feet apart. See Phase 3 Research Transitioning Starts on April 5, 2021.

June 21, 2021 – Mask wearing and distancing end: Fully vaccinated employees at UCI could stop wearing masks at work and everyone could stop following physical distancing requirements on campus. UCI’s guidance began the first workday following California’s re-opening on Friday, June 18. See Cal/OSHA revises its workplace regulations.

June 22, 2021 – Phase 4: Phase 4 research permits all research activities, as well as all types of invited guests and visitors to participate in or conduct research activities. It modifies safety and mitigation requirements by eliminating the physical distancing requirement (including removal of plexiglass barriers) and modifying face covering requirements. Phase 4 allows researchers to retain or implement more restrictive safety protocols and protective measures, which is especially important for human subjects research. It is the final phase in reopening the UCI research enterprise. See Phase 4 Research Transitioning Starts on June 22, 2021.

July 1 to September 1, 2021 – Administrative Staff Return to Campus: Over a 2-month period in summer 2021, administrative staff gradually returned to work on campus. UCI instated a hybrid workforce model through Human Resources’ Future of Work program that allows some staff to work from home either full or part-time. See UCI’s Future of Work. BioSci administrative staff will return fully to campus on September 1 with a few exceptions due to space.
BioSci’s Research Ramp-Down and Ramp-Up Processes

Phase 1 Research Ramp Down: When UCI’s Vice Chancellor for Research, Pramod Khargonekar, announced research curtailment, the School of Biological Sciences asked the Chairs of its four departments to oversee the ramping down of research of the faculty and other researchers in their departments. The Dean and Associate Dean for Research and Innovation (ADR) were also involved.

A major feature of the ramp-down process was identifying whose research constituted critical research. The Chairs asked each faculty member for a list of essential activities and then discussed the lists with the Dean and ADR. The Chairs were the first-pass deciders; they flagged activities that did not seem to fit into the spirit of essential services. The Chair implemented the decision that the group made, which resulted in informing some faculty that their research activities did not qualify as essential services. Ultimately, all ‘essential tasks’ and personnel were approved by the ADR and the Chair.

Phase 2 Research Ramp-Up Paperwork and UCI Review: The Office of Research (OR) and the Environmental Health and Safety (EH&S) office circulated two research ramp-up documents that the School of Biological Sciences used to draft the forms that faculty had to fill out before they could resume research on campus. BioSci used one of the forms as is, OR’s Phase 2 Research Assessment, and used the other document to devise a phase 2 research plan and pre-start checklist. Faculty filled out both the assessment and plan and then submitted it for review. The pre-start checklist was completed by every individual in the research group who was returning to campus and faculty were asked to keep a copy of everyone’s checklist on file. The cover sheet in UCI review had acknowledgement statements that faculty had to affirm before submitting their completed paperwork. The ramp-up documents are in the appendices.

Each BioSci faculty member and a handful of additional researchers filled out the phase 2 paperwork and uploaded their assessment and plan to UCI Review. A personalized notification of approval was sent out to each faculty member using the UCI Review system. The ADR and each faculty member’s departmental chair reviewed and approved each faculty member’s paperwork through UCI Review. BioSci’s EH&S liaison signed off on the phase 2 research ramp-up paperwork through UCI Review, as well. Faculty members were required to update and upload forms when significant changes occurred in their labs. UCI Review’s progress report feature was used to collect updated plans and additional forms.

Features of BioSci’s phase 2 research ramp-up documents were adopted by other schools and offices on campus. The ADR and Research Development Officer (RDO) finalized BioSci’s various forms and the RDO set up and monitored the UCI Review system, including assigning reviewers to each plan and sending approval notifications. The ADR and RDO drafted email announcements about procedural updates, many of which were reviewed by the Dean, Assistant Dean, and EH&S representative. These emails were sent to the entire school at various points during the 16 months from ramp down through each phase of ramp up. Email communications are in the appendices.

The School of Biological Sciences approved 140 phase 2 research ramp-up plans in all. Ninety of the plans were approved over a one-week period from June 2 to 9. This process took time because the chairs and ADR returned many phase 2 plans asking faculty for revisions before they could be approved. BioSci had 492 researchers approved to work on campus by June 17, 2020 and this rose to 618 by September 21, 2020, which was the week before fall quarter began.
**EH&S Review of Paperwork and Spot Checks of Laboratories:** EH&S personnel performed spot checks of indoor laboratory and office spaces reporting faculty who failed to comply with safety protocols to BioSci’s high level administrators. Routinely, more than 90% of BioSci’s researchers were compliant with the masking, distancing and other safety protocols.

**Deliveries:** When UCI entered phase 2 research, many administrative staff continued remote work and buildings remained locked. To ensure the delivery of packages, BioSci required that all deliveries be dropped off at the McGaugh Hall loading dock between 8:00 AM and 5:00 PM on workdays. This centralized delivery site remained open until mid-July 2021.

**Field Research Protocol:** Faculty with EEB who performed field research filled out a COVID-19 field protocol worksite planning checklist and uploaded it to UCI Review. The field protocol covered graduate students and postdoctoral scholars who accompanied faculty.

**Bio199 form:** Undergraduate students were added to several faculty member’s lab groups in conjunction with the beginning of fall quarter 2020. In September, faculty could add undergraduate students to their lab groups as long as they continued to comply with phase 2 restrictions. Faculty adding undergraduate students filled out a Bio199 form and appended it to their phase 2 research paperwork in UCI Review.

**Phase 3 Research Form:** Researchers with approved plans under phase 2 were asked to answer six questions confirming they would comply with the new rules for phase 3 research and share the information with laboratory personnel. Faculty filled out the form online, which was a Qualtrics survey monitored by the RDO. The RDO sent out bulk approval emails each morning to everyone who completed the survey the previous day. 113 researchers filled out the phase 3 form. Many who did not fill it out had phase 2 plans that allowed them to use their private offices on campus and therefore they did not increase capacity during phase 3.

**Phase 4 Research:** UCI had to comply with policies from both the California governor and CalOSHA. California’s governor declared that the state would open completely on June 15, 2021. CalOSHA released and retracted a policy the week before June 15, which delayed CalOSHA’s policy from coming out until June 17. Governor Gavin Newsom signed an executive order the same day stating that California would fully open on June 18. The UCI campus relaxed safety protocols and transitioned to phase 4 on June 21 and 22, respectively.

**Funding Opportunities and BioSci’s Awards**

When COVID-19 became a public health emergency in March 2020, funding agencies, as well as UCI, began soliciting proposals for research projects on both SARS-CoV-2 and COVID-19. While some BioSci researchers have long studied coronaviruses, others pivoted their research to fill the need for a better understanding of the new virus and disease. Below are grant awards from internal and external sources on which BioSci faculty served as Principal Investigator or co-Principal Investigator.

**INTERNAL FUNDING OPPORTUNITIES AND AWARDS**

BioSci faculty received funding internally from the Institute for Clinical and Translational Science Campus-Community Research Incubator Program, the Emergency COVID-19 Research Seed Funding, and the UCI COVID-19 Basic, Translational and Clinical Research Fund.
UCI Institute for Clinical and Translational Science's Campus-Community Research Incubator Program: One faculty member received an award from this ICTS funding opportunity to develop evidence-based practices to mitigate mistrust of the medical community surrounding the COVID-19 pandemic that has disproportionately affected vulnerable, low-income communities. The project investigated the effect of community events on COVID-19-related attitudes and psychological distress in the Vietnamese community. COVID-related research projects under this program received a maximum of $20,000 for projects that foster collaborative, research-oriented projects between university researchers and community organizations. See 2020 Campus-Community Research Incubator Program.

UC Office of the President’s Emergency COVID-19 Research Seed Funding Opportunity: One faculty member received funding from this opportunity to monitor sewage for the prevalence of COVID-19 in the community. This seed funding provided recipients up to $25,000 over 6 months to address the knowledge gaps identified by the World Health Organization (WHO) and others that could inform immediate efforts to stem the COVID-19 outbreak. The Research Grants Program Office of the UC Office of the President made available $2M for this program. See Emergency COVID-19 Research Seed Funding Opportunity.

UCI’s COVID-19 Basic, Translational and Clinical Research Fund: Ten faculty members received awards of up to $60,000 from this opportunity. BioSci, the School of Medicine, and the Office of Research established it to fund faculty whose research was directly contributing to the global effort to control the spread of COVID-19 and to understand the long-term ramifications of infection. This funding contributed to the effort of slowing and stopping the spread of COVID-19 and minimizing its negative impacts. See award information for the COVID-19 Basic, Translational and Clinical Research Funding Opportunity and its request for proposals.

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<thead>
<tr>
<th>Funding Source</th>
<th>BioSci PIs</th>
<th>Project Title</th>
</tr>
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<tbody>
<tr>
<td>ICTS Campus-Community Research Incubator Awards</td>
<td>Messaoudi, Ilhem</td>
<td>COVID-19 Prevalence and Psychological Distress among Vietnamese American Cancer Patients and Other Community Members</td>
</tr>
<tr>
<td></td>
<td>Long, Anthony; Messaoudi, Ilhem</td>
<td>A Small Animal Model of COVID-19</td>
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<tr>
<td></td>
<td>MacGregor, Grant; Lane, Tom; Green, Kim</td>
<td>Development and Validation of an Improved Mouse Model for Investigation of Coronavirus Infection and Pathology</td>
</tr>
<tr>
<td></td>
<td>Messaoudi, Ilhem</td>
<td>Surveillance at the Frontlines: Prevalence of Undetected COVID-19 among Healthcare Providers at UCI Medical Center</td>
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EXTERNAwards
In the beginning of 2020, in response to the COVID-19 global pandemic, federal funding agencies—especially the National Institutes of Health and the National Science Foundation—began funding short- and long-term research on the novel coronavirus and its associated disease. Three BioSci faculty members received NIH or NSF funding to study the virus itself or social and educational impacts of the pandemic. Two of these faculty members received supplemental funding to ongoing research projects, which demonstrates the ability of BioSci researchers to respond to the present challenges.

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<thead>
<tr>
<th>Funding Source</th>
<th>BioSci PIs</th>
<th>Project Title</th>
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<tbody>
<tr>
<td>NIH, National Heart, Lung, and Blood Institute UH3HL141799 Supplement</td>
<td>Hughes, Christopher</td>
<td>Microphysiological Systems to Model Vascular Malformations</td>
</tr>
<tr>
<td>NIH, National Institute on Alcohol Abuse and Alcoholism R01AA028735 Supplement</td>
<td>Messaoudi, Ilhem</td>
<td>Impact of Chronic Ethanol Consumption on Lung Functional and Immunological Landscape and Implication for Susceptibility to SARS-CoV-2 Infection</td>
</tr>
<tr>
<td>NSF, Directorate for Education and Human Resources NSF 2028029</td>
<td>Sato, Brian</td>
<td>RAPID: Social Network Consequences for Underrepresented STEM Students as a University Transitions to Remote Activities</td>
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Appendix
The appendix starts on the next page.
UCI’s Office of Research requires that you fill out the Phase 2 Research Assessment.

The Phase 2 Research Assessment provides faculty and independent researchers ("Plan Owners") with a consistent approach for meeting the assessment required by the State of California and guided by California’s statewide industry guidance. Plans utilizing layered tactics, such as combining physical distancing, frequent hand washing, consistent face covering use, and symptom self-screening practices may lower the potential for virus transmission.

Please complete this assessment by providing the requested information and checking the most appropriate/applicable box. Plan Owners in the School of Biological Sciences should complete the below assessment and upload it with their Phase 2 Research Plan ("Plan") to UCI Review. A School-wide committee including your Chair and the Associate Dean of Research will review both your Phase 2 Research Plan and Assessment.

Name of person completing this assessment: Click or tap here to enter text.

Research program/lab to which this assessment applies: Click or tap here to enter text.

RESEARCH SPACE & PHYSICAL DISTANCING

After reviewing the layout of the space(s) to be used in Phase 2 research activities, the research program’s standard operating procedures and safety protocols, UCI’s guidance for working alone in the lab, EH&S COVID-19 Resources and Posters, Checklist for Phase 2 Research Activities, the General Points of Consideration – Planning the Phased Increased of UCI’s On-Site Research Activities, and the Guiding Principles available on the Office of Research’s webpage about COVID-19 research ramp up:

- No modifications, adjustments, and/or safety precautions over and above the campus minimum requirements are required to minimize the potential for virus transmission.

- Plan Owner will implement modifications, adjustments and/or safety precautions to minimize the potential for virus transmission. Additional and exceptional compliance measures can be reported in section 3c of the Phase 2 Research Plan.

- It is not possible to minimize potential for virus transmission – Plan Owner will reassess these activities later for Phase 3 research.

DISINFECTING SURFACES, EQUIPMENT & INSTRUMENTATION

After reviewing the research program’s current disinfecting procedures, the Cleaning Procedures for General Laboratories in Response to COVID-19, EH&S COVID-19 Resources and Posters, the General
Points of Consideration – Planning the Phased Increased of UCI’s On-Site Research Activities, and the Guiding Principles available on the Office of Research’s webpage about COVID-19 research ramp up:

☐ No modifications, adjustments, and/or safety precautions over and above the campus minimum requirements are required to minimize the potential for virus transmission.

☐ Plan Owner will implement modifications, adjustments and/or safety precautions to minimize the potential for virus transmission. Additional and exceptional compliance measures can be reported in section 3c of the Phase 2 Research Plan.

☐ It is not possible to minimize potential for virus transmission – Plan Owner will reassess these activities later for Phase 3 research.

PERSONNEL HYGIENE & SELF-SCREENING FOR SYMPTOMS

After reviewing current hygiene procedures for this research program, UCI’s face coverings protocol, EH&S COVID-19 Resources and Posters, the General Points of Consideration – Planning the Phased Increased of UCI’s On-Site Research Activities, and the Guiding Principles available on the Office of Research’s webpage about COVID-19 research ramp up:

☐ No modifications, adjustments, and/or safety precautions over and above the campus minimum requirements are required to minimize the potential for virus transmission.

☐ Plan Owner will implement modifications, adjustments and/or safety precautions to minimize the potential for virus transmission. Additional and exceptional compliance measures can be reported in section 3c of the Phase 2 Research Plan.

☐ It is not possible to minimize potential for virus transmission – Plan Owner will reassess these activities later for Phase 3 research.

RESEARCH TEAM COMMUNICATION & TRAINING

After reviewing the current communication procedures and protocols for this research program, Checklist for Phase 2 Research Activities, the General Points of Consideration – Planning the Phased Increased of UCI’s On-Site Research Activities, and the Guiding Principles available on the Office of Research’s webpage about COVID-19 research ramp up:

☐ No modifications and/or adjustments are required to help ensure that team members receive timely, informative communications regarding the Phase 2 research plan or information about UCI-wide guidance implementation at the research team level.

☐ Plan Owner will implement modifications and/or adjustments to help ensure that team members receive timely, informative communications regarding the Phase 2 research plan and information about UCI-wide guidance implementation at the research team level. Additional and exceptional compliance measures can be reported in section 3c of the Phase 2 Research Plan.
Not applicable – Plan Owner will reassess these activities later for Phase 3 research.

UNIQUE CIRCUMSTANCES

After conducting the above assessments, carefully contemplating the Checklist for Phase 2 Research Activities, the General Points of Consideration – Planning the Phased Increased of UCI’s On-Site Research Activities, and the Guiding Principles available on the Office of Research’s webpage about COVID-19 research ramp up, and considering the nature and needs of the research program:

☐ No unique circumstances exist.

☐ Unique circumstances exist for which additional modifications, adjustments and/or safety precautions over and above the campus minimum requirements are required to minimize the potential for virus transmission. Additional and exceptional compliance measures can be reported in section 3c of the Phase 2 Research Plan.

☐ Unique circumstances exist, but even with additional modifications, adjustments and/or safety precautions it is not possible to minimize the potential for virus transmission – Plan Owner will reassess these activities later for Phase 3 research.
PHASE 2 RESEARCH PLAN  
School of Biological Sciences  
University of California, Irvine

All faculty in charge of a research group are to fill out this form about their phase 2 research ramp-up plan and submit it for approval. Your plan must be approved before you and the personnel in your research group can perform research on campus. No Phase 2 research can proceed before the campus transition date, which UCI expects will be June 8, 2020. This plan will be reviewed by a School Committee that includes your departmental chair and the Associate Dean for Research in the School of Biological Sciences.

Please fill out the Phase 2 Research Assessment, which asks you to review the lay out of the space(s) to be used in Phase 2 research activities, the research program’s standard operating procedures and safety protocols, UCI’s guidance for working alone in the lab, EH&S COVID-19 Resources and Posters, Checklist for Phase 2 Research Activities, the General Points of Consideration – Planning the Phased Increased of UCI’s On-Site Research Activities, and the Guiding Principles available on the Office of Research’s webpage about COVID-19 research ramp up.

Update on August 18, 2020: If some of the links are broken, go to the COVID-19 webpages supported by EH&S and the Office of Research.

Before answering the questions below, here are some points to remember:

• All researchers (including postdocs, students and staff) are encouraged to work from home as much as possible and practical.
• All lab members must have up-to-date EH&S safety trainings.
• The Campus policy for Phase 2 is to establish a continuity plan and schedule that includes no more than 30% of pre-pandemic population of faculty, staff and students at a given time.
• Campus guidelines stipulate a maximum of one researcher for every 250 square feet. If needed, the square footage of your laboratory space is available from your MSO.
• Your Phase 2 Research Plan should not include volunteers or 199 undergraduate students. It is possible, however, to include undergraduates if they are paid employees, either from grants or other funding sources.

This form has 4 sections. Section 1 asks for information about the faculty member and his/her research spaces. Section 2 is a compliance checklist from the Office of Research. These health and safety protocols must be acknowledged and/or implemented before phase 2 research can begin. Section 3 is the research ramp-up plan. This section asks for specific details about your plans to comply with phase 2 research rules, and here you can explain additional or exceptional protocols that you and your research group plan to implement. Section 4 is an acknowledgement statement. The University of California, Irvine is requiring that each person sign and date their plan. To substitute for a formal signature, the School of Biological Sciences is using the UCI Review system to date and time stamp when this form is submitted.
SECTION 1

FACULTY, SPACE, AND PERSONNEL INFORMATION

1.a Faculty Member Information

First name:  
Last name:  
UCI e-mail:  
UCI phone number:  
Department/unit:  

1.b Research Program/Laboratory Information

Name or title:  

Provide the location(s) of all space in which Phase 2 research will occur. (Add rows to the table, as needed.)

<table>
<thead>
<tr>
<th>Building(s)</th>
<th>Room(s)</th>
<th>~Square Feet*</th>
<th>Shared Space?</th>
<th>Max personnel^</th>
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* If shared space, please indicate the square footage assigned to the research program/lab.

^ Because Research Phase 2 limits population density to no more than 30% of pre-pandemic levels, it is important that maximum occupancy not exceed this target, and be consistent with the General Points of Consideration – Planning the Phased Increased of UCI's On-Site Research Activities, and the Guiding Principles available on the Office of Research’s webpage about COVID-19 research ramp up.

How many people in your group will be coming to campus during Phase 2, including yourself? Please do not include names and contact information, as it is a violation of campus policy.

SECTION 2

COMPLIANCE CHECKLIST from the Office of Research

The compliance checklist are things you and your lab personnel need to understand and either implement or consider implementing in order to be compliant with phase 2 research. If you do not check a box or have additional or exceptional plans, space is provided in Section 3 for you to provide this information.

To check a box, double click it and then select “checked” under default value.

2.a Personal Protective Equipment (check one of the following)
The School of Biological Sciences’ contact for personal protective equipment (PPE) stocks is Cynthia Zalt from EH&S (czalt@uci.edu).

☐ I have assessed current personal protective equipment (PPE) stocks and other safety supplies and determined that **sufficient** stocks exist for the Plan, and that the Plan includes scheduled/regular ordering to help ensure consistent availability of these essential supplies.

☐ I have assessed current personal protective equipment (PPE) stocks and other safety supplies and determined that **insufficient** stocks exist for the Plan. The Plan includes scheduled/regular ordering to help ensure consistent availability of these essential supplies, and I understand that I may not proceed with the Plan until sufficient PPE and safety supply stocks are received.

2.b Return to Earlier Phase (check one of the following)

☐ If operationally necessary or if required by the Office of Research in response to local health directives, the return to an earlier research phase will follow the ramp down and/or shut down guidance issued by the Office of Research and will utilize the Laboratory Ramp-Down Checklist provided by EH&S.

☐ If operationally necessary or if required by the Office of Research in response to local health directives, the return to an earlier research phase will follow the procedures provided in section 3c.

2.c Individual Control Measures and Screenings (check all that will be implemented)

☐ Controlling population density so that it does not exceed Phase 2 limits at any time

☐ Physical distancing measures

☐ Face coverings required when in the presence of others

☐ Frequently practicing hygiene measures, such as hand washing

☐ Symptom self-screening measures

☐ Controlling access and use of research space that is not shared by limiting access to only the research program’s/laboratory’s team members

☐ Controlling access and use of shared research space by limiting access to only UCI employees, appointees and registered students

☐ Additional/exceptional plan-specific individual control measures are provided in section 3c.
2.d Disinfecting Protocols (check all that will be implemented)

☐ UCI’s COVID-19 cleaning procedures for general laboratories

☐ Additional/exceptional plan-specific disinfecting protocol are provided in section 3c.

2.e Physical Distancing Guidelines (check all that will be implemented)

☐ Directional signs and floor markings to control the flow of personnel and help ensure that they remain physically distant

☐ Physical barriers between work stations located less than six feet apart and where two or more team members must work in close proximity

☐ Designating “entry only” and “exit only” doors

☐ Using a shared calendar to schedule access and control population density over time

☐ Using shift work (i.e., staggered work schedules) control population density over time

☐ Conducting remote group meetings

☐ Minimizing in-person one-to-one meetings to times when it is necessary for conducting the research or for safety reasons – both people using face coverings, other PPE as necessary or required by safety protocols, and remaining physically distant (except for safety reasons and emergencies)

☐ Additional/exceptional plan-specific individual physical distancing guidelines are provided in in section 3c.

2.f Personnel Training on How to Limit the Spread of COVID-19 (check all that will be implemented)

☐ The Faculty Member will direct team members to take UCI training(s) on how to limit the spread of COVID-19

☐ The Faculty Member will direct team members to take UCI training(s) on how to conduct symptom self-checks, including how to report and follow through on symptoms

☐ As part of research program/laboratory specific symptom self-checking training, the Faculty Member will direct team members

  • to prioritize team member safety and health above all else
• to weigh the need for coming to campus against potential health and safety hazards (to themselves and others)
• to stay at home if they have symptoms and to contact their healthcare provider for medical advice

☐ The Faculty Member cannot require any team members to report to campus during phase 2 who are at higher risk for severe illness due to COVID-19 or who want to continue to stay at home for personal or household reasons

☐ Additional/exceptional plan-specific training measures are provided in the space in section 3c.

SECTION 3
RESEARCH PROGRAM/LABORATORY PLAN

3.a Research Spaces

In Section 1.b, you outlined the room numbers assigned to your research space and the number of laboratory personnel who will be in each space at any one time. Please provide brief information about the use of these spaces that includes a general overview of the schedule of personnel, particularly if work will be performed in shifts. (Note: If possible, personnel who share shifts should remain consistent over time to limit number of per person contacts.) Please do not include names and contact information, as it is a violation of campus policy.

3.b Shared Spaces

3.b.1 In Section 1.b, you were asked to list spaces that are shared/contiguous with other laboratories. Please briefly describe the intended schedule for use of these shared/contiguous spaces and for shared equipment. The use of shared and contiguous space and equipment must be coordinated between PIs/Centers.

3.b.2 Does your lab use shared spaces that are not under your control and about which you are especially concerned (e.g., autoclave rooms, etc.)? We ask to gather information to help ensure that the School has appropriate policies and safeguards in place.

3.c Additional/Exceptional Compliance Measures

If you checked any of the additional/exceptional compliance measures boxes in Section 2, then please expand on those points here.
SECTION 4

ACKNOWLEDGEMENT

You and the administrators who approve your plan are required to sign and date this form.

The School of Biological Sciences is using the UCI Review system (https://uci.infoready4.com/#) to date and time stamp when this form is submitted. In UCI Review, you will be asked a series of yes/no questions and to agree to an acknowledgement statement within the UCI Review portal. The time stamp in UCI Review will serve as your signature.
Pre-Start Checklist of COVID-19 Safety Considerations
UCI School of Biological Sciences

The health, safety, and wellbeing of UCI personnel is of utmost importance and therefore all researchers (i.e. lab supervisors, PIs, graduate students, postdocs, project scientists, researchers, specialists, etc.) within UCI’s School of Biological Sciences are required to fill out this form and return it to their faculty supervisor. This document is to be kept on site at UCI as proof that all BioSci research personnel have read, understand, and will comply with this guidance.

General Guidance

- All UCI researchers must obey the current research policies, which are based on phases. For more information, see UCI’s Research Ramp Up webpages on the Office of Research’s website.
- Seek to maintain at least 6 feet of social (physical) distance on campus.
- Always use face coverings when in shared spaces and in close proximity to others.
  - Review UCI’s recommendations for face coverings and note that the School of Biological Sciences is requiring the use of face coverings on campus when in shared spaces and in close proximity to others.
  - UCI’s Environmental Health and Safety (EH&S) has supplied the School of Biological Sciences with face masks. Each person can receive 3 masks every 3 months (12 masks total over a 12-month period).
- Always practice respiratory etiquette by covering your cough or sneeze. If you get the urge to sneeze or cough, cover your nose, mouth, and face covering with a towel or handkerchief.
- Avoid touching your face.
- Wash your hands frequently with soap and water for 20 seconds. At a minimum, employees should wash their hands upon arrival to work, after touching their face or face covering or any common contact surfaces, and when leaving work.

Physical Distancing

- Assess your research space regularly for the ability to meet physical distancing of 6 feet.
- Know how many people can work safely in your research space at a single time while observing appropriate physical distancing.
  - Review the CDC’s guidance on social distancing.
  - No more than one person should occupy a small space/room at any time. This includes, but is not limited to, interview rooms, tissue culture rooms, microscopy rooms, or other small instrument rooms.
  - Consider placing colored tape on the ground around the workspaces indicating boundaries between workers – highly recommended for shared spaces.
- Review UCI guidance working alone in a lab.
- Attend group meetings and communicate with others remotely, whenever possible.
- Plan your research as much as possible beforehand to minimize time spent at the lab.
Post your on-campus work schedule on a team calendar that tracks who will work at what time. Flexible work hours may be necessary so personnel can work at different hours/days to minimize population density in a laboratory space.

Follow posted signage about COVID-19 occupancy limits.

You are not required to report to campus if you are at higher risk for severe illness due to COVID-19 or want to continue to stay at home for personal or household reasons.

- Graduate students and postdocs may volunteer to participate.
- There will be no negative repercussions for non-participation.

Training

Take any required COVID-19 training in a timely manner. UCI’s EH&S will be releasing COVID-19 training.

Cleaning and Disinfecting

- Review the EH&S COVID-19 Cleaning Procedures for General Laboratories
- Review the Chemical Disinfectants Against SARS-CoV-2 matrix
- Evaluate cleaning materials available to sanitize/disinfect the space and communicate needs to the relevant person in your research group.

Health Monitoring

- Practice situational awareness, immediately report potential exposures to supervisors
- Check your health status before coming to work. It is recommended to check your temperature and any potential symptoms of COVID-19. If you share a living space with another person, monitor their health status as well.
- If a researcher tests positive for COVID-19, feels ill, has a fever, loses the sense of taste or smell, or has other symptoms, the following steps must be taken. Review the CDC’s list of COVID-19 symptoms. Check the box to indicate your agreement to these guidelines.
  - Researcher must not come to campus and should seek medical advice.
  - Researcher must report symptoms/illness to PI.
  - PI must report the illness to the department and UCI’s HR: https://hr.uci.edu/disaster-relief/report-known-cases.php and follow their direction.
  - Self-quarantine of other individuals may be required.
  - Researchers returning from air travel must quarantine for 14 days.

Sign: Date: 
Print your full name: 
Print your faculty supervisor’s full name:
COVID-19 Phase 2 Research Ramp-Up

Acknowledgement Statements Posted in UCI Review
Faculty were asked to answer the following five statements by selecting yes/no on the coversheet in UCI Review. Respondents had to select "yes" to get approval to transition to phase 2 research.

1. I understand that I cannot start research on campus until after (i) phase 2 starts, which is expected to be on June 8, 2020 and (ii) my Phase 2 Research Assessment and Plan have been approved.

2. All research personnel under my direct supervision must fill out BioSci's Pre-Start Checklist. In addition, I will also fill out the pre-start checklist. I will keep on record all checklists on site at UCI as proof that all BioSci research personnel have read, understand, and will comply with this guidance.

3. I will schedule regular meetings with my research personnel to (1) continually affirm this Plan, (2) relay updates to this Plan, (3) discuss compliance with this Plan, and (4) address questions associated with compliance with this Plan.

4. I will direct personnel in my research group to prioritize a person's safety and health, weigh the need for coming to campus against potential health and safety hazards (to themselves and others), stay at home if they have symptoms and contact a healthcare provider for medical advice.

5. I will direct my lab members to take UCI EH&S training and consult the resources at https://www.ehs.uci.edu/PublicHealth/covid-19/resources.html and https://www.ehs.uci.edu/PublicHealth/covid-19/training.html.

Acknowledgement Statement
Faculty were required to check a box affirming the following acknowledgement statement before UCI Review would accept their paperwork as complete and ready for review.

☐ I, as a faculty member of UCI's School of Biological Sciences, confirm that the information I have provided on the phase 2 research plan is complete, true and correct to the best of my knowledge. I understand that I am tasked with the safety and health of personnel under my direction and for maintaining a healthy and safe work environment at the research sites identified in this plan.
The field safety planning checklist serves as a tool for UCI field researchers. The checklist has been modified for COVID-19 regulations and guidelines and will help with your trip planning. The checklist is a precursor to the Field Safety Planner.

- Complete this field protocol checklist and insert specifics for your site and operations and delete non-relevant sections
- Limit the number of researchers going into the field. Practice physical distancing as much as possible and have one person per vehicle, room, and tent when possible
- Complete appropriate COVID-19 training for your site and operations
- Hold a pre-trip meeting with your group and/or supervisor to review your field safety plan and checklist

<table>
<thead>
<tr>
<th>Department/Group/Project:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field Team Leader Name, Phone, Email:</td>
</tr>
<tr>
<td>PI/Supervisor Name, Phone, Email:</td>
</tr>
<tr>
<td>Worksite Location:</td>
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<tr>
<td>Project Dates:</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Institutional Review &amp; Approvals:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Departmental Approval</td>
</tr>
<tr>
<td>Register travel &gt; 100 miles via UC Away: <a href="https://ehs.ucop.edu/away/#/">https://ehs.ucop.edu/away/#/</a>; for international travel follow approval process at <a href="https://global.uci.edu/faculty-staff/travel-resources.php">https://global.uci.edu/faculty-staff/travel-resources.php</a></td>
</tr>
<tr>
<td>Project-specific (reserve manager, partner agency, dive control board, etc.):</td>
</tr>
<tr>
<td>Other:</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Required Training/Safety Brief:</th>
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<tbody>
<tr>
<td>Along with discussing work goals and plans, review safe work practices identified in this checklist with all participants.</td>
</tr>
<tr>
<td>Maintain social distancing from one another, equipment handling, disinfection procedures, signs/symptoms of COVID-19, communication options in the field, check in procedures, and emergency procedures.</td>
</tr>
<tr>
<td>Team members should have dedicated PPE, provisions, and supplies, if feasible, to minimize sharing.</td>
</tr>
<tr>
<td>Team members have the right to refuse participation without fear of penalty if they feel conditions are unsafe.</td>
</tr>
<tr>
<td>Each team member should be asymptomatic for at least two weeks prior to fieldwork and will not participate if they feel ill or have reasonable cause to believe they have been exposed to COVID-19.</td>
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<tr>
<td>Maintain reliable communication to receive updates or get assistance; maintain a frequent check-in schedule.</td>
</tr>
<tr>
<td>Remain aware of local public health requirements and campus policies regarding COVID-19.</td>
</tr>
<tr>
<td>Review responsible conduct in the field, community; minimize contact with the public during the pandemic.</td>
</tr>
<tr>
<td>Maintain flexibility to alter plans at any time, self-isolate, or return home.</td>
</tr>
<tr>
<td>Follow campus reporting protocol, if you, a colleague, or an immediate family member tests positive.</td>
</tr>
</tbody>
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<thead>
<tr>
<th>Continuity Planning:</th>
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</thead>
<tbody>
<tr>
<td>Utilize video meetings for training, planning, and discussion, when possible, to minimize in-person interactions.</td>
</tr>
<tr>
<td>Cross-train multiple people on critical tasks; document protocols in detail.</td>
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<tr>
<td>Discuss how to prioritize the most time-critical tasks, if team members are unable to work.</td>
</tr>
<tr>
<td>Consider dividing into smaller field teams that will work separately from other teams for the season.</td>
</tr>
</tbody>
</table>
Transportation to Worksite:
- Avoid public transportation.
- Meet at the worksite (each team member should have their own field vehicle).
- Depending on the history of the vehicle, all common areas should be wiped with a disinfectant prior to and upon completion of field transportation for the day.
- Other precautions:

Provisions:
- Each team member should be responsible for their own field provisions for the day.
- Water, food, snacks, etc., should all be prepared and brought from home, if possible.
- Each team member should have at least two gallons of drinking water available per workday.
- If coolers are used, each team member should have their own designated cooler.
- Stops to make purchases in the field should be kept to a minimum in order to lessen contact with the public.
- For overnight trips, ensure extra lodging is available to maintain social distancing, i.e. single rooms, single tents.
- Other precautions:

Fueling Vehicles/Service Stops:
- Maintain social distancing from anybody at the fuel location, store, etc.
- Be cognizant of what you touch at any service stations, stores, etc.
- Use disinfecting wipes on handles or buttons before you touch them; or single-use towels as a barrier.
- Use hand sanitizer prior to re-entering your vehicle.
- Other precautions:

General Safe Practices:
- Maintain social distancing of at least 6 feet, whenever feasible.
- Keep from touching face (specifically eyes, mouth and nose); follow CDC guidance to Prevent Getting Sick.
- Wear a face cover in common areas, while in proximity to others; follow local public health requirements.
- Wash hands with soap and water frequently for at least 20 seconds.
- Use hand sanitizer when soap and water are not available.
- Cover your mouth and nose with a tissue when you cough or sneeze, or use the inside of your elbow. Throw used tissues in the trash and immediately wash your hands.
- Clean and disinfect frequently touched surfaces.
- If cough develops, wear a face cover to prevent spread via saliva droplets; return home.

Supplies, Cleaning, & Disinfection:
- Shared surfaces, equipment and gear should be cleaned, disinfected and dried before use. Any disinfecting product used should be on the EPA List-N, e.g. Clorox disinfecting wipes, Lysol multi-surface cleaner, Envirocleanse-A, Peroxide Multisurface Cleaner & Disinfectant
- Hand soap
- Hand sanitizer (> 60% alcohol)
- Single-use paper towels
- Disposable nitrile gloves
- Disinfectant:
- Tissues
- Extra face covers
- Carry a thermometer in your first aid kit
- Personal water bottles
- Other:

Emergency Procedures: List participants or attach roster; all team members must be able to provide clear and precise directions to the worksite. □ Cell phone service available □ If no cell service, describe communication plan and check-in procedures; or attach project https://ehs.uci.edu/programs/field/index.html (UCI Field Safety Plan link) and map to nearest hospital.

Notes:

Wrap Up:
- Clean & disinfect all shared equipment, touched surfaces.
- Bag up used supplies; return to field office or campus for disposable, if possible.
- Debrief with all participants.
Reference: Signs and Symptoms of COVID-19 (per CDC May 13, 2020)

Symptoms may appear 2-14 days after exposure to the virus. People with these symptoms or combinations of symptoms may have COVID-19 and should stay home, monitor symptoms, and call their medical provider:

- Cough
- Shortness of breath or difficult breathing
- Fever
- Chills
- Muscle pain
- Sore throat
- New loss of taste or smell

Seek emergency medical care immediately:

- Trouble breathing
- Persistent pain or pressure in the chest
- New confusion
- Inability to wake or stay awake
- Bluish lips or face

Campus Resources

Emergency Medical Response: 911
Campus Police Emergency Number: 1-949-824-5223
UC Irvine COVID-19 Updates: https://uci.edu/coronavirus/?utm_source=homepage&utm_medium=referral
University Health Services Occupational Health Clinic: https://shc.uci.edu/ 949-824-5301
UC Irvine EH&S Field Safety Resources: https://ehs.uci.edu/programs/field/index.html
UC Travel Insurance 24/7 Assistance: 1-800-527-0218 or assistance@uhcglobal.com
Bio197-199 Phase 2 Request Form
School of Biological Sciences

As the campus continues its research Phase 2 Research ramp-up, we anticipate the return of a small number of registered undergraduate students into research labs during the Fall quarter of 2020. Please note that the inclusion of undergraduates must conform to Phase 2 limits, which is 30% on-site activity. Since many labs are already at this activity limit, we expect that few labs will add registered students from in Bio197, Bio198 and Bio199; they certainly cannot be included at pre-COVID levels.

As you consider the addition of undergraduate research students for on-site activities, it is important to keep four things in mind:

1. Undergraduates are part of a demographic that is (currently) disproportionately impacted by the SARS-CoV-2 virus and COVID-19. It is worth considering this fact with respect to potential impacts on your existing personnel.
2. All research must conform to approved Phase 2 Research Ramp-up plans with respect to space usage, PPE usage, maximum occupancy limits, physical distancing, etc.
3. The lab must also continue conform to 30% on-site activity during Phase 2 research. These plans have been put in place primarily to allow young researchers (grad students and postdocs) to continue their progress. The on-site addition of Bio197-199 student(s) will either decrease the on-site activity of other lab personnel or require an extension of hours on the lab schedule.
4. Bringing undergraduates into the labs will increase the consumption of safety supplies, which may put a strain on existing stocks and may make it more difficult to acquire new supplies in quantities sufficient to sustain lab operations.

If you hope to include Bio197-199 students in on-site activities under Phase 2 research, we ask that BioSci faculty complete this Bio197-199 Phase 2 Request Form, which will go through an approval process similar to your Phase 2 Ramp Up Research plans. Please answer the questions below and then upload the completed form to UCI Review (see the FAQ below for more detailed instructions).

Please Provide Information and Answer the Following Five Questions:
Faculty First and Last Name:
Department or Unit:
Date:

1. What is the maximum number of Bio199 students you intend to have enrolled and working in your lab in the Academic Year of 2020-2021 under Phase 2 restrictions?

2. What adjustments are you going to make to accommodate Bio199 students under your existing, approved Phase 2 plan?
3. Bio199 students often require training, which can make it difficult to maintain the required 6 feet of physical spacing. We strongly encourage the use of video for training in these cases to avoid close physical distances. If close distancing is unavoidable, then enhanced PPE, including face shields and masks, should be used. Please provide information about any exceptions to your existing distancing protocols that will be necessitated by the addition of Bio199 students.

4. All new personnel, including Bio199 students and others, must take the UCLC back to campus training and be registered for the daily wellness check. I understand that is my responsibility as a faculty mentor to make sure that my students fulfill these requirements. (Yes/No)

5. I also understand that students can only return to the lab of their own volition; they cannot feel coerced or pressured if they feel unsafe. (Yes/No)

FAQs for PIs:

Now that I’ve filled out the form, what do I do with it? Please add the completed form to your approved Phase 2 Research Ramp Up paperwork in UCI Review. Access your Phase 2 paperwork under the Applications tab. Select Progress Report(s) and upload this form using the file upload labeled Bio197-199 Phase 2 Request Form. The form will be appended to your existing documents in UCI Review, and it will be reviewed by School committee.

Do volunteers and paid undergraduates need to be included on this form? This form refers only to registered Bio197-199 students. Paid undergraduate employees are already allowed for on-site research activities and should have been included in Phase 2 research plans. At present and for the foreseeable future, non-registered volunteers will not be allowed in research labs.

Can I add 197, 198 or 199 students if my lab is not yet at 30% on-site activity? Yes, subject to approval. If your lab is not operating at 30% capacity then you will have to modify your Phase 2 Research plan to explain the expansion of activities. We expect very few labs in the School to pursue this second option, because most labs are already working at 30% activity. To submit a revised plan, please submit a revised Plan 2 form for review and potential approval via the Progress Report function on UCI Review.

What if I do not have an approved Phase 2 plan? Bio197-199 students cannot be in labs that do not have approved Phase 2 Research paperwork. At this point, all faculty should have submitted a Phase 2 assessment and plan to UCI Review.

Do remote undergraduates need to be included on this form? No. You may register as many off-site Bio197, 198 and 199 researchers as you would like.
Phase 3 Research Form for School of Biological Sciences

Name

Title

- Professor
- Associate Professor
- Assistant Professor
- Other

Department

- Developmental and Cell Biology
- Ecology and Evolutionary Biology
- Molecular Biology and Biochemistry
- Neurobiology and Behavior
- Other

Email

I have an approved Phase 2 research plan.

- Yes
- No
I will comply with the Phase 3 directives, as detailed in the Framework for UCI Phased Research Activities.

- Yes
- No

I have calculated maximum occupancy, given the requirement of at least six feet between occupants, for each room and office assigned to my research group.

- Yes
- No

I have discussed Phase 3 rules with my laboratory personnel, and they are aware of maximum occupancy levels and additional mandates, like face coverings.

- Yes
- No

I recognize that EH&S spot checks will continue as a key component of Phase 3.

- Yes
- No
Although I have an approved Phase 2 plan, I have additional protocols that require modification under Phase 3.

[We expect most PIs will respond ‘No’ to this last question; exceptions may include the expansion of human subject research that require additional protocols or the need to incorporate new protocols that can resume with more workers available but require special consideration (e.g., animal surgeries). If you answer ‘Yes’ to this question, you will be contacted to provide an update.]

☐ Yes
☐ No
SARS-CoV-2/COVID-19 (Coronavirus) and Research Continuity

Dear UCI Colleagues:

As the recent message from Chancellor Gillman noted, extensive planning and decision making is underway at UCI to deal with the arrival and spread of the SARS-CoV-2 virus in the U.S. which causes the COVID-19 disease. I write to you to with information and planning for the continuity of our research activities and operations. As we think about our research activities, we must place the highest priority on the health, wellbeing and safety of the entire community.

The Office of Research has plans in place to help ensure the continuity of its services, including those provided by Sponsored Projects Administration, Human Research Protections (IRB), IACUC Administration, and Electronic Research Administration. In addition, ULAR has a robust and comprehensive continuity plan for animal care. Please direct any questions regarding OR’s continuity plans to Bruce Morgan, Associate Vice Chancellor for Research Administration at bruce.morgan@uci.edu or 949-824-5677. Questions regarding ULAR’s continuity plan should be directed to Claire Lindsell at claire.lindsell@uci.edu or 949-824-0569.

While the campus remains open with regular access to research labs and spaces, it’s important for Principal Investigators, Lead Researchers, research leaders, department chairs, deans, center directors, and administrators to take time now to prepare for potential disruptions to normal operations that may arise from COVID-19 impacts. It is anticipated that research space at UCI will remain open, available and accessible to the extent practicable. However, circumstances are evolving rapidly, and hence the importance of creating and/or refining research continuity plans.

With regard to research labs, programs and projects, Principal Investigators (PI) and Lead Researchers (LR) are in the best position to create or review and refine continuity plans that are best suited to meet their particular and often unique needs. Now is the time to either create
a continuity plan or make adjustments to existing continuity plans to address evolving circumstances. In doing so, please be sure to consult with department, school, and/or research unit leaders. To assist in the creation or refinement of plans, we recommend that the following issues be considered.

## CONTINUITY GUIDANCE

### Scenarios for Planning

- A significant number of research lab/program/project personnel may not be able to report to work at UCI due to illness or quarantine. Unavailable personnel may include student employees or student researchers.

- Research facilities and infrastructure will remain open, available and functioning, but support for maintaining the research infrastructure may be diminished in the event of large-scale quarantine or illness.

- Core facilities and UCI research service providers (i.e., services provided on a recharge basis) may be operating at diminished levels or not at all.

- Non-essential international travel for UCI business is restricted, and essential international travel for UCI business will require exceptional approval. In addition, the university recommends against all non-essential UCI business domestic travel.

- Support services provided by the Research Administration in the Office of Research (Sponsored Projects Administration, Human Subject Protections, IACUC Administration, and Electronic Research Administration) will continue. Although Research Administration’s continuity plan will enable staff to provide services even when working remotely, a widespread illness and/or quarantine will likely cause service delays.

- ULAR personnel are well-trained, prepared to follow through on ULAR’s continuity plan, and will maintain critical and emergency functions.

- Ordering and receipt of research supplies will likely be delayed due to workforce and product shortages.

- Current and planned renovations/alterations of research space may be delayed for a significant period of time, as will all non-emergency repairs.

- On-boarding of new personnel may be delayed, especially for those requiring visa services or arriving from Level 2 – 3 countries or regions.

### Health, Wellness and Reductions in Available Personnel

- Identify positions and jobs that are essential/critical to research and cross-train personnel to the extent possible. Ensure that research personnel will receive or have received all appropriate emergency procedure training.

- Develop a communication plan where more than one individual is responsible for disseminating important information to the research team. Redundancy in communication plans is important. Make sure that those responsible for communication have access to...
emergency contact information (cell phone and e-mail) for key research staff. Do not forget to include communications with research collaborators when reviewing or developing a plan.

- Consider how the research will be impacted if the PI/LR and/or one or more research personnel are in quarantine for two or more weeks, or if UCI curtails non-essential activities and services.

- Consider what aspects of the research (including current and upcoming experiments) would be adversely affected, and how to mitigate those impacts. Ensure that all personnel have been trained on all precautionary and safety measures, especially when social distancing is being practiced and individuals may be working alone or with minimal contact with others on the research team.

- Develop a plan/procedure for research personnel who are ill, become ill, believe that they are becoming ill, or believe that their health status may put others at risk.

- Consider the steps that research personnel should take if they develop any cold/flu/COVID-19 symptoms, including the procedure for reporting their current status/absence to their supervisor and anyone else who needs to know. The UCI Coronavirus (COVID-19) Response Center can offer individual support. They can be reached at 949-824-9918 or covid19@uci.edu.

- Ensure that research personnel know when and how to work from home, as well as ensure that they have the appropriate resources in place to do so.

- Remind employees that they should promptly contact their supervisor if they need a disability-related accommodation because of reduced operations, or if reduced operations has impacted or will impact their existing accommodation.

Research Activities, Experiments, Data and Results

- Remember that personnel should not remove research materials other than laptops, data storage devices, etc. to alternative locations (e.g., home). Research must be conducted within appropriate UCI space designated for research activities.

- Consider what data collection/storage activities must continue, and how will this be accomplished. Ensure redundancy for specialized computer functions, as well as data storage.

- Make arrangements to compile data and results in a way that they may be accessed and used when working from home.

- Ensure that all personnel are familiar with UCI’s remote access tools (e.g., VPN, remote desktop apps, using tele/video conference apps such as Zoom, etc.) and test these tools in advance – preferably within the next seven calendar days. Pressure test remote access by having a sufficient number of research personnel work from remote locations during the same time period.

- Please remember to follow the UCInet guidelines, UCI Security Guidelines for Computers and Devices Connected to UCInet and related procedures, and all other UCI policies regarding security of data (including personal information data) at all times.

- Prioritize research activities. Consider scheduling and conducting activities that require access to UCI research space now, and making arrangements to undertake work that is not facility-dependent for later.
Long-term experiments may pose a challenge, and it is important to consider how on-going long-term experiments will be maintained, or whether now is the time to initiate such experiments. Is it possible to collect data, freeze samples, etc. at certain time points to mitigate costs/effort associated with restarting an experiment?

Operational Considerations

- Conduct a thorough evaluation of research space and ensure that it’s safely configured and can be maintained even when personnel are at less-than-normal levels. Consider what needs to be maintained regularly (at least once every 14 days) and what equipment must remain operational. Make plans for continued maintenance, especially for high-risk materials (e.g., biohazardous, radioactive, volatile, etc.). Be sure to review emergency and continuity plans with the entire research team. Also, consider placing alarms and/or remote controls on essential freezers and other and other equipment, and update freezer alarm contact information.

- If a lab is responsible for the housing and care of animals, separate from or in coordination with ULAR, review the current emergency plan and consider how it will be carried out should there be a period of time where the lab is operating with less-than-normal levels of personnel, or in the event that UCI curtails operations.

- For research involving human subjects, create a communication plan to keep them informed about the status of the research, how to contact research staff, the status of appointments, etc. Ensure redundancy of responsibility for the human subject communication plan.

- Monitor the UCI COVID-19 website to keep up-to-date about UCI’s preparedness plans, review the UCI announcements regarding COVID-19, and to learn more about it and SARS-CoV-2 from the CDC. This website is an excellent source of information gathered from trustworthy sources. You may also monitor COVID-19 information directly from the CDC at https://www.cdc.gov/coronavirus/2019-ncov/summary.html.

Research Administration and Management

- Consider standing purchase orders, or regular purchases that must be placed to ensure research continuity.

- Knowing the current status of all required regulatory approvals (e.g., IRB, IACUC, IBC, etc.) and when they will expire is important. Do not let lapsed approvals impede research progress. Have a plan in place to initiate new approvals and secure renewed approvals during a period of time where less-than-normal levels of personnel are available.

- Have plans in place for reporting the long-term unavailability of key personnel to Sponsored Projects Administration (SPA) so that SPA staff may coordinate reporting to sponsors where required.

- Consider who will be responsible for sponsored award reporting obligations and how such reporting will be accomplished in times where less-than-normal personnel are available.

- Consider how unanticipated problems and other concerns/reportable events will be communicated to the appropriate UCI office (e.g., IRB, IACUC, IBC, etc.).

- Monitor announcements from funding agencies and sponsors for changes in policies, practices, procedures, deadlines, operating hours, communication methods, etc. The Office of Research will assist with this by disseminating information it receives from UCI’s research
sponsors; however, these efforts will focus on our primary sponsors such as federal agencies.

**Travel Considerations**

- Be sure to follow the most current UCI travel policies as they may change in response to evolving circumstances. Regularly consult the Travel Information section of the UCI COVID-19 website, monitor travel restrictions, and follow UCI’s policy, guidance and procedures for 14-day quarantine after international travel.

- What upcoming travel is essential for carrying out research or reporting results? Can travel be postponed, should it be cancelled, or are there alternatives to travel that will suffice, such as video or teleconferencing? Be sure to follow the exceptional approval process for any essential international travel.

- If travel is essential, will the travel involve visits to or traveling through Level 2 – 3 countries or regions? What precautions are (or should be) in place to address and mitigate high-risk travel? Understand that risk levels for regions can change quickly, which may impact the ability for someone to return to UCI.

- If you have an exceptional approval for university business travel, register with UC Away, and sign up for travel alerts through the US Department of State.

**NEXT STEPS**

Creating and refining continuity plans is important. Equally important is ensuring that plans stay up-to-date, which means monitoring UCI announcements regarding developing situations and evolving circumstances, and making further adjustments to plans as appropriate. Therefore we recommend that PIs and LRs closely monitor the UCI COVID-19 website to ensure they are aware of any changes in UCI’s preparedness plans, as well as the general UC website on How UC is responding to the coronavirus (COVID-19).

In closing, I would like to thank each and every one of you for ensuring health, wellness and safety of the entire community while pursuing your research. Please do not hesitate to contact me if you have any questions.

*Sincerely,*

**Pramod Khargonekar, Ph.D.**
Vice Chancellor for Research
Distinguished Professor of Electrical Engineering & Computer Science
Dear Faculty,

As you may have just seen, research activities at UCI will be further decreased to only critical research activities. Please see Vice Chancellor Khargonekar’s email below.

Please read the email below and respond to your respective Chair.

1. Please send a ramp down plan to your respective Chair. The plan should describe whether your lab will be inactive or minimally active. If it is minimally active, please report the critical research activity and what personnel will be on campus (we need to report to EH&S which labs will be minimally active). Also please report how minimal personnel will be maintaining social distancing beyond current measures of 6 ft (for example, only one person per area—office, research bay, vivarium behavioral room, etc).

If you have already responded to a similar request by your Chair, then that is sufficient.
If you have not already responded, please send information by Thursday, March 19th.
2. If critical research includes NIH/NSF (etc) funded research, and if that research would be impacted more than a few months if stopped, then it may continue with absolute minimal personnel. Again, please see Vice Chancellor’s Khargonekar’s email for additional information on critical research. Continued critical research should be absolutely essential (maintaining cell lines, yeast lines, fly lines, mouse lines, etc; aquatic facilities, PI maintained animal rooms, watering in greenhouse facility, critical unique deadlines, seasonal data collection, etc). Again, plans should be formed around having one person per area (office, research bay, vivarium behavioral room, etc).

Please keep in mind that even more restrictions may come.

3. Please remember that Graduate Students and Postdoctoral fellows are not mandated to work on campus. That is entirely up to them. More information on other titles will be forthcoming.

Thank you all for your efforts in maintaining a safe work place, calm in the presence of high anxiety, and flexibility with daily changes in protocols.

Stay healthy,

Frank
Frank M. LaFerla, Ph.D.
Dean and Chancellor’s Professor
Research ramp-down and curtailment

Dear Colleagues:

The COVID-19 crisis and the rapidly-changing circumstances associated with it are presenting unprecedented challenges to our research enterprise. UCI’s research community has risen to these challenges, and I greatly appreciate all that you have done so far in response to this crisis.

Driven by the rapidly escalating situation in the State of California, we now need to ramp down and curtail our on-campus research activities. Specifically, at this time, we need to do two things:

- Effective immediately implement plans to ramp down non-critical research through May 1. This must be accomplished by close of business on Friday, March 20. To the extent feasible, non-critical research should be shifted to remote operations (i.e., home), or postponed to a later date. From March 21 through May 1, only critical research will be conducted at UCI. This period may be adjusted based on circumstances as they evolve.

- Ensure that the human physical distance in our research operations exceeds the social distancing guidelines.

Principal Investigators (PIs), Lead Researchers (LRs) and lab managers should immediately begin this process and share their strategy with their department/school/research unit leadership.

CRITICAL v. NON-CRITICAL RESEARCH

Critical research activities means essential experiments and the essential personnel to carry them out. These activities are in most cases experimental research in university laboratories.

Essential experiments are:

- Those for which cessation would be in conflict with funding agreements (consult with personnel in SPA or Beall Applied Innovation as applicable to assist you with determining if this is the case);
• Where the phasing down and restarting of the research would cause irreparable harm to the research project/program; or
• Related to improving general knowledge about the SARS CoV-2 virus (which causes the COVID-19 illness), and reducing the spread of COVID-19, including the development and testing of vaccine candidates.

Essential experiments by definition include clinical trials, i.e., the controlled, clinical testing in human subjects of investigational new drugs, devices, treatments or diagnostics, or comparisons of approved drugs, devices, treatments or diagnostics, to assess their safety, efficacy, benefits, costs, adverse reactions, and/or outcomes.

**Essential personnel** are those individuals who are necessary to ensure the ongoing viability of critical research, including:

• Laboratory personnel responsible for animal care, where such care is not provided by ULAR,
• Personnel responsible for equipment maintenance that, if not done, could result in damage or high-cost equipment repairs (e.g., maintaining cryogen on NMR spectrometers),
• Researchers working on experiments that have a small window for completion (e.g., the ability to make a specific measurement only a few times a year), and
• Faculty and/or research staff necessary to maintain research materials that are perishable and not easily replaced. For example, primary cell lines, and long-term experiments for which there would be considerable cost and/or time associated with requiring the experiment to end (e.g., on-going, continual one-month experiment that requires regular measurements or maintenance otherwise all previous data is lost).

Please note that students (including graduate students and post-docs) are not mandated to serve as essential personnel; the decision to report to campus lies with the student worker, not their research advisor.

**Preparing to Reduce Research Personnel Density**

You may wish to use the [Laboratory Ramp-Down Checklist](#), adapted from peer institutions, to evaluate necessary steps in reducing research personnel density.
Please note that this is not an all-encompassing list, or a list for which all items will apply to a specific type of research or research in a specific discipline. Rather, it is intended as a general tool to help inform researchers and focus their thoughts in preparing their plans and strategies. As a reminder, the UC Office of the President has stated that under no circumstances are researchers to take materials other than laptops, data storage devices, etc., offsite (e.g., to their homes).

**Human Subjects Research**

The general guidance posted on the [Research Continuity website](#) under the Human Research Protections section remains current, and should be carefully reviewed and followed by all researchers engaged in human research.

**Research Personnel Health and Safety**

The health and safety of UCI research personnel is a top priority. PIs and LRs are responsible for encouraging all research personnel, including undergraduate and graduate students, and postdocs to work from home whenever feasible. They are also responsible for encouraging and modeling social distancing and good hygiene. Any researcher (regardless of their position or rank) must not come to work if they are sick. This includes essential personnel, which is why redundancy in all aspects of preparedness planning (and especially in communication plans) is vitally important. Be sure to establish a system by which research team members can and will check the status of each other. We must look after not only our physical health, but also consider mental health and the impact that a pandemic event can have on our most valuable asset – the immensely creative and dedicated people that make up UCI’s research community.

We are facing an unprecedented challenge with COVID-19, and all of us must all do our part to “flatten the curve” to protect our community and lessen predictable pressures on our public health infrastructure. While this process may be disheartening, know that the steps you take now will support the long-term success of our labs and research groups.

For questions regarding the ramp down and curtailment and how these actions may impact research, please direct them to the following:

- For sponsored awards, please direct them to the officer in Sponsored Projects Administration or Beall Applied Innovation assigned to your unit, or to Nancy
Lewis, Executive Director, Sponsored Projects Administration at nlreus@uci.edu.

- For human research, please direct them to the staff in Human Research Protections, or to Beverley Alberola, Director, Human Research Protections at beverley.alberola@uci.edu.

- For animal protocols, please direct them to IACUC@uci.edu.

- For animal care and veterinary services, please direct them to Claire Lindsell at claire.lindsell@uci.edu.

- For the laboratory ramp down checklist, bio safety, radiation safety, occupational safety, etc., please direct them to EH&S staff, or John Sterritt, Executive Director, EH&S at jsterrit@uci.edu.

- Questions regarding local matters may be directed department, school, or research unit leadership.

- Other questions may be directed to Pramod Khargonekar, Vice Chancellor for Research by phone at 949-824-5796 or at pramod.khargonekar@uci.edu, or Bruce Morgan, Associate Vice Chancellor for Research Administration by phone at 949-824-5677 or at bruce.morgan@uci.edu.

Please visit the UCI Coronavirus website for important updates about COVID-19 and the status of UCI operations. While this ramp down and curtailment period will last through May 1, we may need to take further actions if there are orders affecting campus operations or as situation evolves. Please continue to monitor your e-mail and regularly visit the Research Continuity website for updates regarding the status of Office of Research operations, as well as general guidance to the research community.

Sincerely,

Pramod Khargonekar, Ph.D.
Vice Chancellor for Research
Distinguished Professor of Electrical Engineering & Computer Science
UCI Research Shutdown

Dear Colleagues,

In my March 17, 2020 message to UCI’s research community, I informed you of the need to ramp down and curtail UCI’s research activities. Now, with Governor Newsom’s Executive Order N-33-20 (EO), all individuals living in the State of California are required to stay home or at their place of residence until further notice “to preserve the public health and safety, and to ensure the healthcare delivery system is capable of serving all, and prioritizing those at the highest risk and vulnerability…”

The EO also clarifies that people may leave their homes or places of residence to report to work for an essential job. Conducting critical research is an essential job.

Because the health and safety of faculty, staff, and students is UCI’s top priority, I am writing to clarify what the EO means for UCI’s research enterprise, and to update and expand upon the information contained in my March 17 message. Above all, and to be abundantly clear, the expectation of UCI’s leadership is that everyone in the research community consistently follow the below guidelines.

Non-Critical Research

The following applies to all non-critical research carried out on the Irvine or Orange campuses, or at facilities at other locations that are owned, leased, rented or accessed by UCI:

- Research activities that cannot be carried out at home must be halted by 11:59 pm today.
- Research activities that can be carried out at home (with or without telecommuting) should continue to the greatest extent possible.
- When carrying out non-critical research at home, each team member must work from their own home/residence. All communications between team members must be conducted by phone or other electronic means.
• Computers, storage devices, lab notebooks and papers may be removed from laboratories to facilitate working from home.

• Office supplies used in the course of research may be taken home only for the purpose of conducting UCI research and business.

• Under no circumstances should specimens, animals, research supplies (other than office supplies used in the course of research), equipment, instruments, etc. be removed from laboratories without the prior approval of the cognizant dean or research unit director (as applicable) and the Vice Chancellor for Research (or designee).

• Designate a primary and backup emergency contact for each research group. With prior approval of the PI or Lead Research, these individuals may access the group’s research space periodically, but not frequently, to check on the status of the lab/space and equipment, as well as troubleshoot any problems reported by research group members (e.g., rebooting computers, etc.). While doing so, they should exceed the social distancing guidelines and clean high-touch surfaces to the extent possible. Emergency contacts must not conduct non-critical research in the research space while the EO is in effect.

• Ensure that up-to-date emergency contact information for each research space is posted on all doors leading to the space.

Critical Research

A detailed definition of critical research can be found on the Critical Research definition page on the Research Continuity website. The following applies to all critical research carried out on the Irvine or Orange campuses, or at facilities at other locations that are owned, leased, rented or accessed by UCI:

• To conduct critical research during EO effective period, Principal Investigators (PIs) and Lead Researchers (LRs) must obtain approval for critical research from their cognizant dean or research unit director. Deans and Directors are setting up review processes for such approvals. We expect very few exceptions will be granted.

• Critical research activities must be conducted in a manner to ensure that the human physical distance between employees exceeds the social distancing guidelines.

Human Subjects Research

Non-critical human subject research activities that cannot be carried out with both the researcher in their own home and the subject in their own home must be halted by 11:59 pm today. Human research that is non-critical and can be carried out from home must comply with the requirements noted in the Non-Critical Research section above.

The general guidance posted on the Research Continuity website under the Human Research Protections section remains current for critical research, but is subject to change as circumstances evolve, so please check back frequently.

Domestic and International Field Research and Research at Sea

Research activities currently being carried out in the field must be halted unless the research team can ensure that the human physical distance between team members will consistently exceed the social distancing guidelines. In the case that research is halted,
the PI is responsible for ensuring social distancing is practiced to the maximum extent practicable when traveling back to UCI.

Research activities currently being carried out at sea should continue for the duration of the voyage, but the PI is responsible for ensuring that the research team members practice social distancing to the maximum extent practicable. To the extent applicable, researchers returning from sea must also observe CDC travel guidelines.

Field research and research at sea that has not yet commenced must be postponed until further notice.

**Students and Postdocs**

- Faculty and PIs/LRs are encouraged to work creatively with students to ensure they can remain on track for graduation despite disruption to research activities.
- Undergraduate student, graduate students and postdocs are not and cannot be mandated to serve as essential personnel.
- Students or postdocs have the right to refuse to conduct critical research.
- Students and postdocs should follow the guidelines established by their department, school and UCI leadership regarding whether they should remain on campus or stay at home.

**Laboratory Ramp-Down Checklist**

The Laboratory Ramp-Down Checklist should be used to prepare for halting non-critical research and preparing to minimizing activities associated with critical research.

**Research Personnel Health and Safety**

PIs and Lead Researchers (LR) must require that all research personnel work from home if feasible. They are also responsible for ensuring that all essential personnel under their direction follow the **social distancing guidelines**. For critical research, PIs and LRs are responsible for reducing the density of people working in their research space.

**Any researcher (regardless of their position or rank) must not come to work if they are sick.** This includes essential personnel, which is why redundancy in all aspects of preparedness planning (and especially in communication plans) is vitally important. Be sure to establish a system by which research team members can and will check the status of each other. We must look after not only our physical health, but also consider mental health and the impact that a pandemic event can have on our most valuable asset – the immensely creative and dedicated people that make up UCI’s research community.

**COVID-19 Related Expenses**
To the extent your lab incurs COVID-19 related expenses, please ensure that your lab staff requests funding for and codes those expenses as indicated by DFA: https://www.budgetoffice.uci.edu/covid-19-funding-request/index.php.

Contacts

Please direct questions regarding how the above actions may impact research to the following:

- For sponsored awards, please direct them to the officer in Sponsored Projects Administration or Beall Applied Innovation assigned to your unit, or to Nancy Lewis, Executive Director, Sponsored Projects Administration at nrelewis@uci.edu.
- For human research, please direct them to the staff in Human Research Protections, or to Beverley Alberola, Director, Human Research Protections at beverley.alberola@uci.edu or Jessica Sheldon, Acting Manager, Minimal Risk Teams at jessica.sheldon@uci.edu.
- For animal protocols, please direct them to IACUC@uci.edu.
- For animal care and veterinary services, please direct them to Claire Lindsell at claire.lindsell@uci.edu.
- For the laboratory ramp down checklist, bio safety, radiation safety, occupational safety, etc., please direct them to EH&S staff, or John Sterritt, Executive Director, EH&S at jsterrit@uci.edu.
- Questions regarding local matters should be directed department, school, or research unit leadership.
- Other questions may be directed to Pramod Khargonekar, Vice Chancellor for Research by phone at 949-824-5796 or at pramod.khargonekar@uci.edu, or Bruce Morgan, Associate Vice Chancellor for Research Administration by phone at 949-824-5677 or at bruce.morgan@uci.edu.

Stay Informed

To be consistent with the Executive Order, this ramp down and curtailment period will last until further notice. Please visit the UCI Coronavirus website for important updates about COVID-19 and the status of UCI operations. Please continue to monitor your e-mail and regularly visit the Research Continuity website for updates regarding the status of Office of Research operations, as well as general guidance to the research community.

Now, more than ever, we must make difficult decisions regarding our research, but they are made easier knowing that we are doing our part to “flatten the curve” to disrupt the SARS-CoV-2 virus and to help prevent our healthcare delivery system from being overwhelmed.

I greatly appreciate all that you are doing to protect our collective health and safety.

Sincerely,

Pramod Khargonekar, Ph.D.
CALL FOR PROPOSALS
COVID-19 Basic, Translational and Clinical Research Funding Opportunity

This CFP was sent out campus-wide by Office of Research and can be found online here.

On March 11, 2020, WHO characterized COVID-19 as a pandemic. Researchers across UCI are searching for ways to contribute to the effort of slowing and stopping the spread of COVID-19 and minimize its negative impacts. In order to support these efforts in streamlined fashion, a UCI Joint Research Fund has been established.

The UCI Joint Research Fund is supported by multiple schools and the UCI Office of Research. It is overseen by a single review panel, the Clinical Research Acceleration and Facilitation Team (CRAFT)-COVID Committee. The panel is charged with reviewing and recommending proposals for funding. Meritorious proposals will have either immediate impact on efforts to treat or control the spread of COVID-19, or longer term impact by preparing investigators to apply for extramural funding that is likely to become available.

Funding will be needs-based, with a maximum of $60,000 per project. (A greater amount may be considered for truly exceptional proposals with large potential.) We strongly encourage proposals that are interdisciplinary and across UCI Schools.
Beginning March 23, 2020, new applications for COVID-19 related research will be accepted on a rolling basis until funding is expended. Applicants are encouraged to consult with research offices in their respective schools and the Office of the Vice Chancellor for Research to identify relevant extramural funding opportunities.

Successful applications will be ones with demonstrated potential for positive impact on our mission to mitigate the impact and control the spread of COVID-19 including, but not limited to, topics such as transmission, sero-surveillance, epidemiology, rapid point-of-care and molecular diagnostics, testing, pathology, development of novel treatment and care strategies, social impacts, and data and network science relevant to this pandemic. Applications supporting basic, pre-clinical, population-based, and translational research including clinical trials are considered responsive to this call.

Eligibility Requirements
UCI faculty at all levels, in all series are eligible to apply.

Use of Funds
Funds may be used for staff salaries, support of postdoctoral fellows and graduate students, equipment, and supplies. Funds may not be used to pay for faculty salaries or fellowships or for travel unless they are a necessary part of the research project.

Content
Applications should clearly delineate how the proposed research may mitigate the impact and control the spread of COVID-19, and include the following:

- Cover Page including proposal title, and applicant(s) name, faculty position, and Department
- Summary (half page)
- Proposal (Margins, 1” on all sides and font Arial 11 pt). Text excluding half page summary and references should not be more than three single spaced pages.
- Sections should be:
  - Specific aims, including how this project will improve chances of obtaining future funding. If collaborating investigators are involved in this project, indicate their respective expertise and contributions
  - Impact work would have on our efforts against COVID-19
  - Likelihood of future extramural funding; include including reference to the respective agency opportunities
  - Innovation
  - Approach including how data will be evaluated for significance and reproducibility.
  - Timeline for completion
References
Itemized budget not to exceed $60,000 and justification.
Facilities and Resources that demonstrate the infrastructure available to the project that will allow the research proposed to start immediately.
Biographical Sketch in NIH or NSF format for all key personnel

Review, submission, and notification
Reviewers will evaluate proposals on the following criteria: (1) fit for the intent of the call and expected impact; (2) study hypothesis/objectives; (3) investigator expertise; and for clinical trials: (4) study inclusion/exclusion criteria, sample size, nature and plan for human subjects’ specimens to be obtained. Applications should be contained within a single pdf. Please send the completed proposals via email to somrd@hs.uci.edu.

As needed, applicants should make themselves available to respond to follow-up information requests from the committee. Funding decisions will be announced on a rolling basis.

Reporting
Award recipients will be required to submit a one-page final report to the CRAFT-COVID Committee upon completion of the study or at the end of one year whichever is first. Final reports should include an abstract of the project, outcomes, resulting grant applications or publications, and a financial report detailing expenses incurred.
Dear BioSci Faculty,

UCI expects to transition on June 8, 2020 from Phase 1 research, which has permitted only critical research activity, to Phase 2, which will include all Phase 1 activity plus research activities that pose a low risk for virus transmission. You can find a description of the phases here.

To prioritize the health and safety of all UCI faculty, staff, and students, each UCI faculty member must gain approval before phase 2 research can begin. To gain approval, the School of Biological Sciences is asking for the completion of three forms. The first two are to be completed by faculty and then uploaded to UCI Review at https://uci.infoready4.com/ for approval. The third must be completed by you and all of the researchers under your supervision, to be maintained on site in your lab or office. All three forms are attached to this email and are also available in UCI Review.

The first two forms are the Assessment, which is required by the Office of Research (OR), and the Phase 2 Research Plan, which was developed for the School of Biological Sciences.
in conjunction with OR. After completing these forms, please log onto UCI Review to upload them, answer a few final acknowledgement questions and then submit your research plan. Once submitted, you need not provide any additional documents to the OR. A school-wide committee will review these forms starting immediately.

The third form is the Pre-Start Checklist of COVID-19 Safety Considerations. You and all of the research personnel (i.e. lab supervisors, PIs, graduate students, postdocs, project scientists, researchers, specialists, etc.) under your supervision are required to fill out this pre-start checklist. We ask that you collect these forms from all researchers in your lab and keep them on site at UCI as proof that all BioSci research personnel have read, understand, and will comply with this guidance.

Please direct questions about the guidance, policies, and forms for the phase 2 research ramp up to your Departmental Chair or to me (bgaut@uci.edu). If you have questions about the availability of PPE or sanitizer, please contact Cynthia Zalt (czalt@uci.edu) who will be organizing efforts for the School.

If you have questions about using UCI Review or need copies of any of the forms, contact Melinda Gormley at mgormley@uci.edu or 949-824-6771.

We look forward to implementing this important transition and thank you for your efforts to safely resume more of the School's research activities.
UCI announced yesterday that **phase 2 research activities will begin on June 8**. Campus is working hard to make this transition as smooth as possible, and information is changing rapidly. Below we provide the latest information on several topics that are pertinent to School research personnel who will be returning to campus during the phase 2 research ramp up. Most administrative staff are not yet returning to work, but they are included in this communication to be informed about research activities in the School.

**Approval.** PIs must have approval to perform research during phase 2, which is limited to 30% on-site activity. If PIs have not already submitted their documents for approval, the appropriate forms can be downloaded and submitted on UCI Review. Submitted plans are reviewed on a rolling basis. Remember that no person can be compelled to return to campus during phase 2.

**Training.** The campus has posted a formal [COVID-19 training module](https://www.uclc.uci.edu). Even if phase 2 plans have been approved, PIs and all personnel under their supervision must take this training before returning to campus. To start the course, log into UCLC at [www.uclc.uci.edu](http://www.uclc.uci.edu). Once on the UCLC home page, click on the orange box titled “Find A Course”, and search by title: “Returning to Campus.”

**Health Monitoring.** Personnel are expected to self-monitor daily. Report incidences of COVID-19 positive tests and symptoms to Human Resources. Please see EH&S’s [Research Safety Procedures to Reduce COVID-19 Transmission](https://www.uci.edu/ehs/). The UCI Working Well™ Daily Health Check-In application has been developed as part of the new Working Well™ program. All employees who will be working on-site will receive regular communications from the application. Please send the name(s) and UCInetID(s) of all employees who are or will be working on-site to your department administrators so that these employees can be added to the application. Once you submit your list, employees can expect to begin receiving daily emails within 72 hours.

**Deliveries.** Research buildings will be locked during the day, but we have arranged for the McGaugh Hall loading dock to be the central point for receiving deliveries. It will be open and
staffed from 8:00 AM to 5:00 PM. The delivery receiving staff will contact labs by phone and/or email when a delivery arrives. Please include the name of the lab with your orders, so the staff can make contact. Because there will be no refrigerated storage, PIs are responsible for checking on delivery of perishables and making sure they are picked up in timely fashion. The School will not accept responsibility for packages that are not retrieved. For large purchases, such as equipment, delivery to specific locations needs to be arranged directly with the vendor.

**PPE.** Masks will be provided to returning lab groups. EH&S and Facilities Management (FM) will distribute 3 cloth face coverings per person based on the number of personnel you listed on your Phase 2 Research Plan. We will do our best to get these distributed in a timely manner. If you are concerned about delays, contact Brian Paredes (brian@uci.edu) with BioSci’s FM. You may also order masks from EH&S, but if you do so, please inform Brian Paredes because masks are in limited supply. Campus is working on the release of a directive regarding masks; expect face coverings to be required under most conditions on campus. EH&S will acquire gloves centrally for the campus. Demand is high for gloves and they are on order.

**Cleaning and Sanitation.** BioSci’s main labs in BS3, NS I & II, MH, SH, GH, Bonney, Qureshey have received a cleaning start-up package with three items: paper towels, hand sanitizer and spray disinfectant. PIs can reach out to Brian Paredes (brian@uci.edu) to coordinate additional supplies, as appropriate. Beginning Monday, June 8 FM custodial cleaning crews will clean common spaces in research buildings twice per day, including wiping down lab entry door handles. They will go into labs to perform routine cleaning as before and as described here. Additional custodial staff have been hired to manage the increased workload. If PIs do not want custodial staff to enter the lab, they can opt out by placing a sign on the laboratory door. After opting out, the lab will be removed from the schedule. Once removed, be forewarned it may be difficult to add the lab back to the cleaning schedule due to staffing issues. EH&S has drafted procedures for cleaning labs.

Hand washing remains the recommended method for personal hygiene. We have, however, requested additional wall-mounted and free-standing hand sanitizer dispensers for common spaces, such as building entrances, hallways, lobbies and classrooms. Stocks are low, so many of these remain on order, and they will be installed when available.

**Signage.** Campus reopening signage will be posted at building entrances, stairways,
elevators, restrooms, and other common spaces starting the week of June 8 and continue until completed. These signs will provide instructions about occupancy and use of these shared spaces. Signs can be [downloaded](#) and printed for posting.

**Ventilation.** UCI buildings have aircurit systems that monitor environmental parameters and adjust air supply and exhaust delivery based upon indoor contaminant levels and thermal load. Campus is not intending further modification of building ventilation.
Dear BioSci Community:

The School has been busy since the campus resumed research activities under Phase 2 on June 8. Since that time we have approved over 100 Phase 2 Research plans, and more than 500 personnel that have returned to campus to conduct their research. We are grateful to PIs, student and staff, because spot-checks have shown that the vast majority of the School is complying with physical distancing, face coverings and the Phase 2 guidelines. However, as COVID-19 cases continue to rise in the state and in Orange County, it is important to issue some reminders:

Face Coverings:
Face coverings are required for all individuals on UCI-controlled property. This UCI executive directive is consistent with the injunction of the Governor. The directive is designed to mitigate possible exposure and to prevent the spread of COVID-19 within the UCI community. In effect, it means that you are to wear a face covering while on campus and within public spaces of buildings at all times. If needed, employees may obtain a face covering from Environmental Health & Safety, but every lab with Phase 2 approvals should already have an adequate supply. If your lab does not, please contact Brian Paredes.
The face covering directive helps keep UCI employees safe by reducing the spread of COVID-19. Moreover, wearing face coverings demonstrates that the UCI community cares about each other and the greater good. There are reports, however, that face coverings are not always being worn appropriately on campus. PIs, center directors and unit leaders must ensure their team members on site adhere to the directive.

**Phase 2 Research:**
Most of the School’s labs are up and running under [Phase 2](#), which emphasizes 30% on-site activity, physical distancing and appropriate PPE. If you are a PI who plans to conduct research on-campus but has **not** submitted a [Phase 2 plan](#), please do so immediately. You need to submit a Phase 2 plan even if you had activities approved under the Phase 1 shutdown. These plans are required by the state, and failure to submit your Phase 2 plans may ultimately result in the revoking of research privileges. Phase 2 plans must also be printed and available to both EH&S and lab personnel. We suggest putting the plan in the laboratory safety manual as well as posting it in the lab and providing copies to lab members.

**Back-to-Campus Training:**
We must re-emphasize that all personnel need to complete their back-to-campus training. Each person in the lab should take the training via [UCLC](#) and then print the certificate confirming they have completed it. EH&S will also ensure that everyone receives an email stating they completed the requisite courses, which then gives you two ways to print proof that can be kept in the lab to show during spot checks.

**Daily Symptom Check-In:**
All personnel working on campus should be getting the [daily symptom email](#) and must respond via the application. If you are not getting it, you should alert
your supervisor and give your UCINetID to your MSO.

In closing, we want to voice our appreciation for the ongoing compliance of labs and research personnel. It is a wonderful testament about our School and UCI communities.

Sincerely,

Frank LaFerla, PhD
Dean & Chancellor’s Professor

Brandon Gaut, PhD
Associate Dean of Research and Innovation
Dear BioSci Faculty and PIs:

The 2020-2021 academic year will bring new graduate students and some undergraduates to campus. We are providing information about incorporating these students into the research under Phase 2 Research RampUp.

The graduate programs have enrolled an unprecedented number of first-year Ph.D. students, many of whom will be seeking homes for rotations. We hope that you will consider hosting one or more of these students in your lab. Note, however, that these new students must fit into existing Phase 2 restrictions, including 30% on-site activity, physical distancing and sufficient PPE. If you plan to take one or more of these students, you do not need to alter your Phase 2 plan if you can fit them into it by (for example) extending the hours in the lab or modifying existing shifts. If you cannot accommodate them under your current Phase 2 plan but believe that you can expand your lab under the existing Phase 2 restrictions, feel free to submit a revised Plan 2 form for review and potential approval. This revised Plan should be submitted to UCI Review using the progress report function. To do so, access your approved application; press the progress report tab; upload your revised plan; and it will be appended to the end of your original application.

Registered undergraduates in Bio199, Bio198 or Bio197 will also be allowed in
research labs. These students must also fit into current Phase 2 Research plans, and their inclusion is subject to approval by a review committee. For further information, please refer to the Bio197-199 Phase 2 Request form. After reviewing the form, fill it out and follow the instructions. Given the restrictions mandated for Phase 2 plans, we expect very few undergraduates to be involved in on-site research, and there must be a compelling case to do so. Note, however, that remote (as opposed to on-site) undergraduate researchers do not require approval, because they will not affect 30% on-site activity levels.

As you consider an expansion of lab personnel, please keep these additional factors in mind. First, remember that volunteers are not allowed in research laboratories under the Phase 2 RampUp. Students must be enrolled and registered. Second, recognize that many new arrivals to campus have traveled far distances. For the safety of your lab group and others, we strongly encourage that you ask new personnel to self-quarantine for 14 days after their arrival and prior to engaging in any on site activities. Such quarantining is required for those arriving from some foreign countries. Third, all new arrivals must take the appropriate EH&S training prior to perform on-site research, including the COVID-19 training module. Finally, please remember that the safety of you, your group and your colleagues is the highest priority. Although COVID-19 cases have been declining in California, there are still many more new cases today than in June and nearly 100 documented cases at UCI thus far.

We are truly grateful for the wonderful spirit of cooperation of our School colleagues during these trying times, knowing that we share the same goals: to mentor students, to perform cutting-edge research and to do so safely.

Sincerely,

Brandon Gaut, PhD
Associate Dean of Research and Innovation

Raju Metherate, PhD
Associate Dean of Undergraduate Education

R. Michael Mulligan, PhD
Associate Dean of Graduate Studies
COVID19: Cases continue to skyrocket, prompting the stay-at-home order that went into effect in Orange County on Sunday, December 6. Although the order affects many aspects of daily life, it does not require UCI to modify Phase 2 research plans and activities. Approved Phase 2 research activities may continue. Thank you for your continued adherence to Phase 2 guidelines.

Asymptomatic Testing: The campus has ramped up COVID19 testing capability. Starting this week, asymptomatic testing has been expanded to a broader range of students and staff, including post-docs, researchers, project scientists and research assistants who come to campus for research purposes. Grad students can sign up for an appointment through the Student Health Portal. Post-docs and research staff can make a testing appointment here.

Research and Deliveries over Winter Recess: Campus will have an extended closure schedule over the holidays, so that operations end the evening of Dec. 18 and resume the morning of Jan. 4. Be forewarned that the McGaugh loading dock will not be operational during the closure, but the North Campus Distribution Services mail office will be open. Mail drop off is available from 7am-9am and pick up between 8:30am-10am; the mail office will be closed on December 24, 25 and January 1. Please plan ahead for ordering and purchasing research supplies.

Winter Travel: Many staff and students are hoping to travel over winter recess, but both personal and business travel are strongly discouraged at this time. If you do travel out of state, the campus may require that you sequester after travelling to High Risk areas, which at this point is just about everywhere. If you travel out of state,
contact COEH on your return to query about the need for, and duration of, sequestering. Please note that some staff may not be able to fulfill their job duties while sequestering off-campus; if that is the case, they should use paid administrative leave (if available), extended paid sick leave (EPSL), sick leave and/or vacation time to cover the sequester period. For those who hope to travel, the CDC has some excellent tips about precautions to take while traveling and testing when you return.

As always, please feel free to contact me (bgaut@uci.edu) if you have any questions or comments about research in the School.

Sincerely,

Brandon Gaut, PhD
Associate Dean for Research and Innovation
Dear faculty, staff and students,

By now, you may have seen Vice Chancellor for Research Khargonekar’s announcement informing us that the campus will transition from Phase 2 research to Phase 3 research beginning on April 5. This transition is welcome news! It allows the resumption of more research activity, and it will help our students and postdocs continue their academic progress.

Similarities and differences between Phases 2 and 3. Under Phase 3, research must continue to follow CalOSHA regulations, which include physical distancing of 6 feet between workers (with the notable exception of work within BSL3 facilities), and the UCI Executive Directives, which mandate the use of PPE and face coverings. See the Framework for UCI Phased Research Activities for additional details about Phase 3 rules and guidelines.

Unlike Phase 2, Phase 3 no longer has a 30% limit on space and building occupancy, so long as people maintain six feet of distance. This means that faculty can use their offices regularly and that labs with ample space can increase their occupancy to pre-Covid levels.

Do be aware, however, that shifts in space use may be required to maintain physical distancing – e.g., to avoid having personnel work directly across from each other on a lab bench or having them sit at desks that are too close.
together. We ask all PIs to meet with their research personnel to: i) discuss necessary changes in space usage, ii) calculate maximum room occupancies, given the requirement to maintain 6 feet between personnel and iii) ensure that personnel understand and follow Phase 3 regulations.

The other major changes from Phase 2 regard field research, research on human subjects and undergraduate research. Research in these categories is now allowed, so long as Phase 3 regulations are followed.

**Administrative Staff Personnel:** Phase 3 research does not apply to administrative personnel, even if they support research activities.

**Visitors:** Phase 3 allows some visitors without the need for Authorized Official Approval. Those visitors include human subject research participants (and one accompanying caregiver), translators for human subject research participants, regulatory officials from accrediting bodies, and industry representatives who oversee sponsored clinical trials. All other visitors – including off-campus collaborators, other academic visitors, repairmen, etc. – must still be approved by following this protocol, which can be downloaded from the [Executive Directives and Policies webpage](#).

**Public Spaces:** As building occupancy increases, there will be more traffic in the hallways, restrooms, elevators and other public spaces. This traffic drives home the point that it is still important to be vigilant with PPE and face coverings; now is not the time to let your guard down! Moreover, depending on usage, navigating public spaces may require more patience. Please be mindful of your colleagues. Even though you may feel comfortable with multiple people in the elevator (as allowed by signage on some elevators), your colleagues may not.

**Core facilities and services:** Facilities like ULAR, the OBC and the TMF have been operating under Phase 2 restrictions. Be aware, however, that the Phase 3 6 feet-rule may still limit access to these facilities, so that they cannot achieve pre-Covid usage levels. Please plan ahead and contact the core directors to
learn about availability and flow through. In-person computing support from the School may also be restricted.

**Calendars and Scheduling:** Under Phase 2, labs were required to keep personnel schedules in an online calendar to help with contact tracing, if needed. Please continue these efforts.

**Vaccines:** The Campus and the School recommend that all personnel are vaccinated as soon as possible. Note, however, that the Phase 3 regulations must be followed even when all individuals in a room have been vaccinated. There can also be no discrimination on the basis of vaccine status.

**Deliveries and building openings:** We intend to continue to use the McGaugh loading dock as the center for deliveries. Research buildings are not yet scheduled to be unlocked during business hours, but is under consideration with the Logistical Support Team at the campus level.

**For PIs – How to apply to Phase 3 status:** If you have an approved research protocol under Phase 2, then approval is a breeze. Access the [Phase 3 Research Form](#), enter your name and other information, and then respond ‘yes’ or ‘no’ to the following statements:

1. I have an approved Phase 2 research plan.
2. I will comply with Phase 3 directives, as detailed in the Framework for UCI Phased Research Activities.
3. I have calculated maximum occupancy, given the requirement of at least six feet between occupants, for each room and office assigned to my research group.
4. I have discussed Phase 3 rules with my laboratory personnel, and they are aware of maximum occupancy levels and additional mandates, like face coverings.
5. I recognize that EH&S spot checks will continue as a key component of Phase 3.
6. Although I have an approved Phase 2 plan, I have additional protocols that require modification under Phase 3. [We expect most PIs will respond ‘No’ to this last question; exceptions may include the expansion of human subject research that require additional protocols that were not allowed under Phase or the need to incorporate new protocols that can resume with more workers available but require special consideration (e.g., animal surgeries). If you answer ‘Yes’ to this question, you will be contacted to provide an update.]

After you have submitted the form, you will receive an email with your responses. Please keep a copy of this email as proof that you have filled out the form. You will receive an approval email after your Phase 3 plan has been verified.

If you do not have an approved Phase 2 research plan, then you need to have one to resume research. Please contact Melinda Gormley at mgormley@uci.edu. She will send you the forms and directions for submitting them.

This transition to Phase 3 is an exciting development for the BioSci community, and it provides hope that research will eventually resume to pre-Covid levels. However, it is still critically important to follow the Phase 3 regulations, to protect both yourself and your colleagues!

As always, feel free to query me (bgaut@uci.edu) if you have any questions, comments or concerns. Many thanks for your patience during this challenging year.

Sincerely,

Brandon Gaut, PhD
Distinguished Professor
Associate Dean for Research and Innovation
The links in the original message—sent yesterday evening—were not working. This has been corrected. Our apologies for any confusion.

Phase 4 Research Transitioning Starts on June 22, 2021

Dear Colleagues,

On June 22, 2021, UCI will begin its gradual transition to Phase 4 research. This is the final phase in reopening the UCI research enterprise.

In summary, Phase 4 research permits all research activities, as well as all types of invited guests and visitors. This last phase aligns safety and mitigation requirements with UCI Executive Directives, California Department of Public Health guidance, and the recently-revised Cal/OSHA emergency temporary standard. Phase 4 also, however, allows Plan Owners to retain or implement more restrictive safety protocols and protective measures, which is especially important for human subjects research.

To promote and facilitate transitioning to Phase 4, I am issuing this message while the Office of Research simultaneously updates its Research Continuity website. Tomorrow, Plan Owners and Authorized Officials will find a full description of Phase 4 research on the UCI Research Phases During the Pandemic webpage. They should use that information as they transition research programs to Phase 4.

As we move closer to completing our research reopening, I want to take this opportunity to thank the entire research community for playing a critically important role throughout the pandemic. From essential research on understanding the SARS-CoV-2 virus and how to detect and protect against it, to understanding COVID-19 disease and how to treat it, to
studying and illuminating the pandemic’s social, physical, mental, economical, and political impacts, the UCI community’s commitment to conducting research for the betterment of society has never been more readily apparent.

I deeply appreciate of all your efforts, and I am humbled by your continuous commitment to health and safety in the research workplace. It has resulted in an excellent record in terms of eliminating virus transmission in our research spaces and activities. I am confident that all of you will remain steadfast in this commitment to health and safety as we gradually transition to Phase 4 research.

Sincerely,

Pramod Khargonekar, Ph.D.
Vice Chancellor for Research
Distinguished Professor of Electrical Engineering & Computer Science
Dear Colleagues,

We received great news in the past week that California has fully opened and that UCI has transitioned to phase 4 research. I provide a few updates about operations this summer and beyond.

**Phase 4 Research**

*June 21, 2021 – Mask wearing and distancing end:* Fully vaccinated employees at UCI no longer must wear masks at work and need no longer follow physical distancing requirements on campus. However, all individuals who are not fully vaccinated on UCI controlled property must wear a face covering *except under certain circumstances.* For more information, see [Cal/OSHA revises its workplace regulations](#).

*June 22, 2021 – Phase 4:* Phase 4 research permits all research activities, as well as all types of invited guests and visitors to participate in or conduct research activities. It modifies safety and mitigation requirements by eliminating the physical distancing requirement (including removal of plexiglass barriers) and modifying face covering requirements. Phase 4 allows researchers to...
retain or implement more restrictive safety protocols and protective measures, which is especially important for human subjects research. It is the final phase in reopening the UCI research enterprise. See Phase 4 Research Transitioning Starts on June 22, 2021.

**Vaccinations:** The UC System is expected to release a policy requiring faculty, staff, and students to receive the COVID-19 vaccination before returning to campus for fall quarter. Limited medical and religious exemptions will be considered. Not everyone is able to get the vaccination and BioSci is committed to accommodating the needs of immuno-compromised individuals and others who are not vaccinated. Faculty, staff, and students are asked to upload proof that they have been vaccinated. See COVID-19 Vaccine Information.

**Deliveries:** Beginning July 6, building doors will be unlocked during business hours, and deliveries will begin to transition back to laboratories. BioSci will continue to receive deliveries at the loading dock in McGaugh Hall until it is no longer needed, which will perhaps be sometime around mid- to late July. Department administrators have been informed and the process of adding the addresses of laboratories to deliveries has begun.

**Returning to Campus**

**July 1 to September 1, 2021 – Staff Return to Campus:** Over a 2-month period this summer, administrative support staff will start a gradual return to work on campus.

**Daily Symptom Check:** The daily symptom check will continue for now. BioSci has a good response rate, please keep replying to the Working Well™ email.

**Centralization of post-award support in the Dean’s office:** The pandemic has put many things in perspective and driven BioSci to seek cost-saving measures
and greater efficiency. Centralizing post-award in the Dean's office is one such effort. During July the process of bringing post-award personnel from the departments into the Dean's office will be completed. Jason Park is manager of the Contracts and Grants Administration team and is supported by the pre-award supervisor, Megan Vu, and post-award supervisor, Joyce Penh. Both the research administration and research development teams will now report to the Associate Dean for Research and Innovation. We look forward to serving you in the future and, as always, hearing from you directly.

Sincerely,

Brandon Gaut, PhD
Distinguished Professor
Associate Dean for Research and Innovation