Guidelines for Research Ramp Up at UC San Diego

Continuity of Research Task Force

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Chairs: Miroslav Krstic & James McKerrow
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In consultation with
EOC (Emergency Operations Center), EH&S (Environmental Health & Safety), IT Services, Facilities, Procurement, Return to Learn team, Academic Senate leadership and Committee on Research, Animal Care, IRB, Deans & Provosts, multiple undergraduate students, graduate students and postdoctoral scholars

https://blink.ucsd.edu/research/covid-19/research-ramp-up.html

These guidelines outline plans and procedures to enable ramp-up of research activity at UC San Diego. Guided by our own infectious disease experts and epidemiologists as well as the World Health Organization, the CDC, and state and local public health experts, our goal is to enable a return to on-site research, scholarship and creative activity while protecting the health and safety of all members of the UC San Diego community. All available scientific evidence indicates that the threat of community spread of SARS-CoV-2 will remain for months to come, and that we should prepare to move back and forth between varying levels of activity on campus. Prepared by the Continuity of Research Task Force, with additional input from faculty, staff and students, the guidelines outlined here will enable us to do so with minimal complexity.

The Continuity of Research Task Force understands this document to be a living text, one which will be adjusted and improved as circumstances evolve and we learn together how best to respond to them. Updates will be posted at https://blink.ucsd.edu/research/covid-19/research-ramp-up.html regularly.

July 29.2020

Statement from UC San Diego Academic Senate

The Continuity of Research Task Force, organized by Vice Chancellor for Research Sandra Brown and co-chaired by SAVCR Miroslav Krstic and Dean James McKerrow, has in a few short weeks produced a detailed set of plans to govern research continuity in the SARS-CoV-2 era. Reflecting our institution's core values, these plans make the protection of the health and safety of campus members its paramount priority, while recognizing the urgency of returning to the vibrant research activity that is characteristic of our campus life. Eight breakout groups that included Senate members addressed the heterogenous research and safety needs of faculty, research staff and students across campus. The process was broadly consultative, and made essential use of the world-class medical expertise that our campus is fortunate to have. Senate Council applauds these plans and expresses its deep appreciation for the dedicated scientists and staff who worked tirelessly to bring them to fruition.

Andrew Kehler
Chair, Committee on Research

Maripat Corr
Chair, San Diego Divisional Academic Senate

Steven Constable
Vice Chair, San Diego Divisional Academic Senate

Principles

- Prioritize the **physical safety and mental health** of all members of the UC San Diego community, the communities in which we engage in research, and the communities in which we live.
- While the urgency of resuming our research is keenly felt, we will do so only in a way that is informed by **the ethical imperative**, to prioritize health and safety.
- **Resume research, scholarship and creative activity with full adherence to public health directives**, campus policy, and the guidance of medical and public health experts.
- Ensure a **transparent and consistent process** in determining permissible levels of research activity over the course of the pandemic. Minimize complexity so that we can easily move from one level of activity to another. Ensure that decisions are made and implemented at the unit level (PI, department, center or institute) to account for the variety and contexts of research, scholarship and creative activity at the university. Allow flexibility within necessary parameters.

A Phased Scale Up

Given the continued threat of community spread of COVID-19, activity will resume/expand in phases. New outbreaks are possible at any time and may require a contraction of activity. The Chancellor, in adherence with state and local directives and in consultation with university leaders, epidemiologists, and infectious disease experts, will determine when conditions require or permit transitioning from one phase to another. Research, scholarship and creative activity at UC San Diego will therefore be governed by campus-identified phases, with distinct and risk-appropriate restrictions on the density of on-site personnel, requirements for use of personal protective equipment (PPE) such as face coverings, and frequency of disinfection of work spaces and commonly touched surfaces such as door knobs and light switches.

The Red Phase is characterized by a "stay-at-home" order from government officials, and campus-mandated remote work. Only essential activity is permitted on campus (or at any UC San Diego research site) during this phase. PPE, social distancing, and sanitization protocols are required.

The Orange Phase is characterized by a modest increase in on-site activity (including field research, community research, and clinical sites). "Stay at home" orders may remain in place; remote work is required for those whose work can be conducted remotely. In general, approximately 25% of research personnel will be on-site at any time. PPE, social distancing, and sanitization protocols are required.

The Yellow Phase is characterized by a more significant increase in on-site and field activity of normal activity. In general, approximately 50% of research personnel will be on-site at any time; remote work is required for those whose work can be conducted remotely. PPE, social distancing and sanitization protocols are required.

The Green Phase is characterized by a return to normal operations, subject to campus restrictions.

Figure 1: Campus Phases

	Campus PHASE			
	RED Shelter-at-home, "essential activity only" (approximately 15%)	**ORANGE** On-site research at low density with PPE and distancing (approximately 25%)	**YELLOW** On-site research at medium density with PPE and distancing (approximately 50%)	**GREEN** return to full operations (some restrictions may remain)
PPE, physical distancing, sanitation	**Required**			**TBD**
Work that can be done remotely continues remotely	**Required**			**TBD**
Option for remote work by vulnerable groups[i]	**Required**	**Strongly Recommended**	**Recommended**	**Not required**
DENSITY restriction for on-campus research, rehearsal, etc. (with PPE, distancing, safety & sanitation per EHS)	Only essential personnel allowed	wet labs: 1 person/aisle other spaces: **no more than 1 person per 250 sq ft**	wet labs: 2 persons/aisle other spaces: **no more than 1 person per 150 sq ft**	None
Chair/Dir./Dean actions required	Review/Approval of on-site research plans, exception requests	Review/Approval of research plans and exceptions; ensure coordination of floor/adjoining facilities' plans; ensure compliance with plans	Review/Approval of research plans and exceptions; ensure coordination of floor/adjoining facilities' plans; ensure compliance with plans	As per usual practice
PI actions required	Submission of on-site & remote site plans	Review of guidelines, prep and submission of Research Activity Ramp-up; ensure compliance with plans	Review of guidelines, prep and submission of Research Activity Ramp-up; ensure compliance with plans	None
Researcher/staff actions required	Remote work plans, contact information to PI/supervisor	PPE, safety, hygiene training (if required)	PPE, safety, hygiene training (if required)	None
TRIGGER **Campus level determination with public health considerations (state and local)**	**Shelter-at-home order instituted by Governor or by County**	From RED: state shelter-at-home order may be eased; campus-defined low-density research with health & safety standards **CAN BE REVERSED**	From ORANGE: state or local shelter-at-home order may be lifted; campus further relaxes density restrictions with campus-defined health & safety standards **CAN BE REVERSED**	Normal functions resume (some restrictions may remain) **CAN BE REVERSED**

Guidance Framework

Regardless of the type of activity in which you're engaged, certain practices are required for all UC San Diego faculty, students and staff. The CDC advises that risk of viral transmission rises when individuals work in close proximity (at distances of less than 6 ft.) for periods of as little as 10 minutes. Restrictions regarding social distancing, use of face coverings, hygiene and sanitization outlined here are intended to permit some resumption of research, scholarship and creative activity while attending to the risk of transmission.

In specific settings or types of activity, additional practices will be required to support the safety of all of those involved in the research. Where the specific requirements of the activity necessitate exceptions to these guidelines, a *risk mitigation plan* must be developed and approved by department/program leadership before activity can resume (see below, p. 9).

General Requirements: Applicable to all Research, Scholarship, & Creative Activity

- Work that can be conducted **remotely** should continue to be conducted remotely until normal university operations resume.
    - Persons who are 65 years or older, have a chronic underlying condition, or have a compromised immune system are particular vulnerable to severe impacts of respiratory infection. During the Red phase, members of these vulnerable groups are required to have the option to work remotely; members of these vulnerable populations are strongly recommended to have that option during the Orange phase.
- **If you are sick** or have any reason to believe you have been exposed to COVID-19 or any infectious disease, do not come to work.
- If you have symptoms of COVID-19, see https://health.ucsd.edu/coronavirus/Pages/default.aspx to learn **where to get tested**. Follow EOC protocols (available below) for reporting your positive test results if you are tested elsewhere.
- **Undergraduate and graduate students and postdoctoral scholars cannot be *required or pressured* to work on-site during the Red or Orange phases**. Because research is an essential element of the UC San Diego educational experience, faculty should make an effort to support students in credit-bearing (honors, thesis, dissertation, independent study, experiential learning) research activity, while not coercing them to work on-site. Students may work on-site by exception during the Red phase.
- **All personnel must complete a symptom screening before beginning work on-site each day;** those with symptoms should not enter the workplace.[ii] UC San Diego IT teams will select and implement a reporting systems app which will be ready for use before we move into the Orange phase; information about that app will be available at https://blink.ucsd.edu/research/covid-19/research-ramp-up.html.
- **All personnel must complete a one-time, state-mandated training** that can be accessed through the UC Learning Center by searching for "COVID-19 Return to Work." https://uc.sumtotal.host/Core/dash/home
- Adhere to appropriate **density restrictions**, as required by phase (see Figure 1). Such restrictions may require implementation of work shifts to ensure that maximal density is not exceeded.

- **Follow CDC guidelines** for protecting yourself and others through frequent **hand washing**, social distancing, etc.
- Wear a **face covering** when you are on campus — on sidewalks, in common areas of buildings, etc.[ii] In most settings and circumstances, a cloth or disposable ear-loop face covering is sufficient. Surgical masks are considered ideal if available (does not have to be N95 or include a filter). Face coverings (and other personal protective equipment, as required in specific contexts) are available for purchase.

  UC San Diego's Integrated Procure-to-Pay Solutions is stocking large quantities of PPE and disinfecting material, which is available for purchase through Oracle Procurement. Search *COVIDPPE* in the Oracle search bar to see the available items. Please add PPE items to their own cart so that they can route to Procurement for review and prevent delay of processing non-PPE orders. Additionally please make sure N95 orders are in their own cart so they can route to EH&S for their Respiratory Protection Program.

  These items are being stocked to meet the needs of many different campus communities. It is requested that you order only what your lab or office will need in two week increments to ensure that as many areas as possible across campus can take advantage of this supply. If you anticipate a significantly larger than normal bulk order, please reach out to IPPS through the UC San Diego Services & Support portal.

  You will be required to provide a Chart of Account (COA) string or Project Number (POET) to cover the cost of supplies: face coverings and PPE can be charged to grants, while other supplies must be charged to departmental or other COVID-specific accounts. Please consult your MSO or Fund Manager for guidance on identifying the appropriate account to use.
- **Regularly disinfect** your work areas. *Every research, office and performance space or studio should be disinfected at the beginning and end of every day, or at the beginning and end of every shift* (whichever is more frequent). In addition to surfaces, instruments, and equipment, commonly touched surfaces (e.g., doorknobs and handles, light switches) should be cleaned by those starting and finishing their work shift. Guidance is available on the EH&S blink page.

  The Emergency Operations Center will make available, on a one-time basis, a free "welcome kit" of supplies, including disposable masks, cloth masks, disinfectant spray and disposable gloves (as needed) to those approved to ramp up their research. Quantities will be determined by the number of your personnel returning on-site during the initial ramp up. Request these supplies using the "Return to Research Initial Supplies Request" Form (currently being revised) and upload it at the Research Activity Reporting Platform.

  After these free supplies run out, additional supplies are available for purchase. UC San Diego's Integrated Procure-to-Pay Solutions is stocking large quantities of PPE and disinfecting material, which is available for purchase through Oracle Procurement. Search *COVIDPPE* in the Oracle search bar to see the available items. Please add PPE items to their own cart so that they can route to Procurement for review and prevent delay of processing non-PPE orders. Additionally please make sure N95 orders are in their own cart so they can route to EH&S for their Respiratory Protection Program.

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- Many researchers share with other spaces like cell culture rooms, autoclaves, cold rooms, and waiting rooms. If you share space with others, you need to coordinate with them to ensure that these spaces are regularly disinfected, and that to the extent possible, use of these spaces is coordinated so that social distancing requirements can be maintained there. If possible, as you schedule activity in your lab, coordinate with others whose teams work on the same floor or hallway as you do. This will help to ensure that everyone can observe necessary physical distancing in common areas (e.g., restrooms, stairwells, hallways, elevators).
- **Day travel to field research sites or clinics** must be conducted in accordance with specific guidelines below.
- Develop and implement a **communications plan** for staff and students within your lab or research group to enhance awareness, compliance and site change requirements if needed.
- Complete required forms and submit via the Research and On-site Activity Platform (https://ucsd.edu/researchactivityform) for approval by your department chair and dean. This tool should be used for on-campus research activity as well as field research, community-based activity, and activity conducted in satellite locations. Research, scholarship and creative activity cannot resume until your plan has been approved by the dean, and the campus has announced the transition into the Orange Phase.

Context-specific Requirements and Resources: ORANGE PHASE, began June 1

In certain research settings, the health and safety of researchers and research participants is best protected through **adherence to additional safety practices** until health risks diminish or all campus activity returns to normal (Green phase). Where the (pre-COVID) health and safety plan for the lab or facility conflicts with guidelines below, the more restrictive guidance will prevail. The table below summarizes these requirements for particular settings; additional detail is available in the appendices.

Figure 2: ADDITIONAL Context-Specific Requirements

Context	Facility startup requirements	Daily startup requirements	Density of personnel	Personal protective equipment	Disinfection	Screening of personnel	Travel
MINIMUM REQUIREMENTS FOR ALL ACTIVITY (ORANGE PHASE)	Consult EHS Checklist for safe re-opening of facility	As per context-specific guidance	Approximately 25% of normal No more than 1 person per **250 sqft**	Face coverings (cloth masks or surgical masks) required for all	Disinfect work areas, commonly touched surfaces at beginning and end of each day, shift, or use	Symptom screening for all personnel	Subject to university guidelines
***Additional* requirements for specific contexts**	Are additional startup procedures required for safe resumption of activity?	Are additional preparations required before work can begin each day?	Are there additional restrictions or guidance for social distancing?	Are there requirements for personal protective equipment beyond basic face coverings?	Are there additional requirements for disinfection of workspaces?	What personnel involved with activity require screening for exposure to COVID-19 before activity?	Are there additional considerations re: travel for research purposes?
Wet labs	Yes, consult EH&S checklist	As per usual	Orange: 1/aisle Yellow: 2/aisle	disposable gloves may be recommended	ensure all equipment disinfected after each use	none	None
Dry labs	Yes, consult EH&S checklist	As per usual	Orange: 1/aisle Yellow: 2/aisle	as per usual practice	ensure all equipment disinfected after each use	none	None
Human subjects research in dedicated facilities (e.g., clinical trials, behavioral studies on campus)	Yes, consult EH&S checklist	Pre-screen staff and participants 24 hours in advance of activity	Ensure waiting areas allow social distancing	face shields may be required for staff; face coverings for participants	disinfect after each appointment; disinfect common spaces (waiting rooms) hourly	Screen staff and participants immediately before activity	None
Imaging research involving human subjects	Yes, consult EH&S checklist	Pre-screen staff and participants 24 hours in advance of activity	Ensure waiting areas allow physical distancing	Face shields may be required for staff; face coverings for participants	Disinfect after each appointment; disinfect common spaces (waiting rooms) hourly	Screen staff and participants immediately before activity	none
Animal housing facilities and procedure rooms	Consult ACP	none	none	Location-specific PPE requirements per usual practice	disinfect common spaces every two hours	none	None
Social sciences and humanities field research at public sites (e.g., ethnographic, observation, interviews)	Not applicable	Pre-screen staff and participants 24 hours in advance of activity	risk mitigation plans needed if site does not permit full social distancing	Face shields may be required; face coverings for participants	Disinfect surfaces before and after use	Screen staff immediately before activity	Carpool limited to 2 people; public transportation discouraged
Community-based research in controlled off-campus sites (e.g., schools, community centers, etc.)	Not applicable	Pre-screen staff, and participants 24 hours in advance of activity	Risk mitigation plans needed if site does not allow for distancing	face shields may be required; face coverings for participants	Disinfect after each appointment; disinfect common spaces (waiting rooms) hourly	Screen staff and participants immediately before activity	Carpool limited to 2 people; public transportation discouraged
Performing/Visual Arts	Yes, consult EH&S checklist	Pre-screen participants in joint activity (dance, theatre, musical)	risk mitigation plans needed if site does not allow for social distancing	Additional PPE may be required, or alternative (e.g., plexiglass barriers)	disinfect before/after each use of shared spaces, equipment (music stands), etc.	Screen staff and participants immediately before activity	
Natural sciences field research	Consult our "Field Research: Additional Guidance"						
Ships/Boating	Consult our "Field Research: Additional Guidance"						

Exceptions: Alternative Strategies for Risk Mitigation

GENERAL

As noted above, the CDC advises that risk of viral transmission rises when individuals are in close proximity (at distances of less than 6 ft.) for periods of as little as 10 minutes. Restrictions regarding social distancing, use of face coverings, hygiene and sanitization outlined here are intended to permit some resumption of research, scholarship and creative activity while reducing the risk of transmission.

There are some types of activity where these restrictions will be impractical or will have a significantly damaging impact on research. In many cases, prioritizing public health and safety will require that those types of activity not commence until the risk of viral transmission has declined (transition to yellow or green phase).

In a limited number of instances, alternate strategies for mitigating risk of transmission may be proposed as exceptions to the requirements here. Approval for exceptions to these guidelines will be infrequent and will be based on assessing of the necessity of such exceptions for the conduct of specific and required activity. Among those activities where such exceptions may be requested through the submission of a Risk Mitigation Plan include:

- Use and maintenance of certain types of instrumentation that require two or more persons working in close proximity (less than 6 ft. apart);
- Training of staff or students in specific techniques, skills, or procedures;
- Artistic performances by duos or small groups for limited periods of time;
- Research procedures that require more than one person to conduct.

Creative approaches to planning work that requires brief close proximity or that prevents the use of some PPE might include the use of face shields, coordinating distinct multiple location performances which are simultaneously transmitted, transparent dividers in certain behavioral research experiments where face coverings would substantially interfere with experiments, or in performances with brass/reed/wind instruments, etc.

Alternative Risk Mitigation Plans must explain the importance of conducting the activity at this time; why the activity cannot be adjusted to adhere to required social distancing or use of PPE; how the risk associated with persons working in close proximity will be mitigated. Review and approval/disapproval of such mitigation plans is required but may delay resumption of on-site research, scholarship, and creative activity.

There may be circumstances in which additional review of proposed plans is required, for instance, when space is being used by multiple PIs and a collaborative plan has not been arrived at. In these situations, where *additional review* of plans is required, the Continuity of Research Task Force will review plans and work with PIs, departments, and deans to determine what mitigation is required to enable activity to proceed.

TRAINING

If you need to conduct training activities with students or staff and these activities cannot be done while maintaining the safety requirements outlined in the guidebook, you will need to submit a Training Risk Mitigation Plan **[link forthcoming].**

Your plan must explain the necessity of conducting the training at this time and why you cannot abide by standard safety guidelines (e.g., physical distancing, use of PPE, personnel density). You will also need to provide risk mitigation measures for specific instances where you are not able to meet standard safety requirements for training.

Required risk mitigation strategies for training include:

Remote planning and preparation: Prior to each in-person training session, the trainer and trainee will meet remotely to plan the training session, walk through procedures and practices, etc. This will maximize the efficiency of in-person time, focusing that time on the actual conduct of training, and thereby reducing close in-person contact to the shortest possible time.

Proper ventilation of training spaces: Whenever possible, training will be performed in a space with single-pass airflow (without recirculating air). PIs should make every effort to identify such space (confirming with EH&S if they are uncertain), relocating their training activity to use such spaces where possible.

1:1 Training: Only one trainer and one trainee will be engaged in hands-on training at a time in a given space. Group training is permitted only by exception.

Minimizing duration of close contact: Trainer and trainee will minimize, to the fullest extent possible, the amount of time spent in close proximity to one another. For example, a trainer may demonstrate a procedure and then step back to a distance of more than 6 feet; a trainee may watch a demonstration of an instrument through a window or Plexiglas barrier, after which the trainer and trainee trade places so the trainee is working with the instrument and the trainer is supervising through the window, etc.
Use of face masks in addition to regularly-required PPE: All personnel are required to use face masks at all times. In shoulder-to-shoulder training situations, both trainer and trainee must wear face masks at all times, in addition to whatever PPE would be standard for the particular context. For instance, use of particular equipment might normally require a face shield; a face mask must also be worn.

Exceptions: In situations where these minimum training safety requirements are impossible to implement, PIs will need to prepare alternative training risk mitigation strategies for review and approval by Environment, Health & Safety. Consultation with EH&S staff prior to submitting plans is encouraged.

Training plans that cannot meet minimum standard requirements will need to be approved by EH&S, graduate program directors (if graduate students are involved) and academic leaders

(including department chairs, deans and division heads). You cannot conduct any training activities that do not adhere to specified safety requirements without an approved Training Risk Mitigation Plan.

Not all Training Risk Mitigation Plans will be approved. If your plan is not approved, you will need to find ways to conduct the training in compliance with safety requirements or else hold off on conducting the training until safety requirements can be met (possibly when research moves into the Yellow or Green phase and restrictions are loosened accordingly).

Ramp-up Procedures

Before resumption/expansion of research is allowed, you should **begin planning** for a gradual increase in activity and on-site work.

- Plan to continue **working remotely whenever possible** (e.g., data analysis, writing, literature review).
- Make a long-term, multi-phase plan.
  - The online Research and On-Site Activity Form (https://ucsd.edu/researchactivityform) enables you to list all personnel prioritized by phase, so that when the campus moves from one phase to another you do not have to resubmit the framework unless your research plan has changed. The tool also allows you to enter information only for a single phase, and can be updated in either case.
  - It will be easiest for you to fill out the tool by gathering the information you need in advance (personnel lists, etc.). Before you go to the online platform, download and review/complete the required forms (https://blink.ucsd.edu/research/covid-19/research-ramp-up.html#Forms-/-Resources-/-Quick-Links), which you will need to upload to the online tool for review and approval.
  - Assess what activity can be done on-site in adherence to restrictions on personnel for each phase, and the minimum number of people required to do that work.
  - PIs should work with postdoctoral scholars and students to help them balance on-site and remote activity throughout the pandemic. Encourage off site activity when reasonable and feasible.
  - **Consult floor plans** for your research or performance space (floor plans are available via Tririga, which department MSOs can access) and consider what adjustments will be required to meet restrictions.
  - Identify those activities and personnel who will be working on-site in Red, Orange, and Yellow Phases of activity. Personnel identified for activity in any phase will also be able to work in subsequent (less restrictive phases). See additional guidance in the appendix.
  - **Visiting scholars,** scientists, and researchers must secure approval for activity from the chair, and dean, and are subject to the same requirements regarding social distancing, hygiene, PPE, sanitization and accountability as others.
- If you share space (cold rooms, cell culture rooms, etc.) or equipment with others outside your immediate research group, coordinate with them to ensure that these spaces are regularly disinfected, and that to the extent possible, use of these spaces is coordinated so that social distancing requirements can be maintained there. You will need to identify

these shared spaces and plans for disinfecting in the Research Activity Reporting Platform.

- **PIs or lab leaders should review and complete** the Social Distancing and Sanitization Plan, (download here), and (if necessary) Alternative Risk Mitigation Plan. You'll need to upload these when you complete and upload the online Activity Framework Tool.
- Complete the online Activity Framework Tool. You will be notified when your plan has been approved. Do not commence activity before your plan is approved and the campus has announced the transition into the Orange Phase.
- **Identify PPE and disinfecting supplies** that you and your staff will require. Many of these items are available for purchase. UC San Diego's Integrated Procure-to-Pay Solutions is stocking large quantities of PPE and disinfecting material, which is available for purchase through Oracle Procurement. Search *COVIDPPE* in the Oracle search bar to see the available items. Please add PPE items to their own cart so that they can route to Procurement for review and prevent delay of processing non-PPE orders. Additionally please make sure N95 orders are in their own cart so they can route to EH&S for their Respiratory Protection Program.

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  You will be required to provide a Chart of Account (COA) string or Project Number (POET) to cover the cost of supplies: face masks and PPE can be charged to grants, while other supplies must be charged to departmental or other COVID-specific accounts. Please consult your MSO or Fund Manager for guidance on identifying the appropriate account to use.
- **Educate your research staff** about the different phases, required PPE, density restrictions, screening procedures and disinfection protocols. Discuss and create work schedules that will be required to adhere to density restrictions.
- Consult with EH&S (as necessary) or your facility manager about steps required to re-open a space that has been unused for any length of time. EH&S's checklist is available at https://blink.ucsd.edu/safety/research-lab/covid-19/start-up.html.

Once on-site activity resumes/increases, PIs, responsible faculty, and lab/facility managers must ensure that they and their teams observe required density restrictions, safety procedures, and disinfecting protocols. Additionally, continue planning for a change in campus phase. While we anticipate some time to prepare for movement from a more restrictive to a less restrictive phase, it is possible that shifts from Yellow to Orange or Orange to Red might happen more abruptly, so maintaining and updating plans for decreasing on-site activity is important.

Important Information: COVID-19 Testing, Contact Tracing, and Decontamination Procedures

On May 11, 2020, UC San Diego initiated the **Return to Learn Program,** which aims to broadly test students, faculty and staff on campus on a recurring basis for the presence of the SARS-CoV-2 virus that causes COVID-19. The pilot phase will make COVID-19 testing available to all resident undergraduate and graduate students on campus in May 2020. Later, Return to Learn testing may potentially be made available to other members of the UC San Diego on campus community. You can read the latest updates about Return to Learn on their website.

In the meantime, **UC San Diego Health** is making COVID-19 testing available to those faculty and staff who will be returning to on-site research and who indicate when they register for the required Symptom Screening process that they are interested in asymptomatic testing. **Student Health Services** will make testing available to non-resident undergraduate and graduate students returning to on-site research. UC San Diego Health will be contacting individuals who indicated that they wanted to be tested; given capacity for asymptomatic testing, it may take several weeks to test all who are interested. No employee can be required to be tested prior to returning to on-site activity.

Individuals who test positive for COVID-19 will be directed to their health care provider for clinical guidance and will be expected to self-isolate for 14 days. The names of those who test positive will be provided to county health officials for their information, and to contact tracers (coordinated through UC San Diego Public Health Program). The names of those who test positive will not be provided to co-workers or those with whom they have had close contacts.

If through this program or testing elsewhere you or a member of your research team tests **positive for COVID-19, immediately inform the Emergency Operations Center** (eoc@ucsd.edu) so that contact tracing and facility decontamination can be initiated according to appropriate protocols. The PI should not inform anyone else about another individual's health status or possible infection. EOC and other offices on campus will respect individual confidentiality when conducting contact tracing.

A lab member's **positive test result may require short-term closure of research space** in order for the EOC and EH&S to complete a review of the COVID positive case and an assessment of the locations where the COVID-19-positive person spent time. The scope and timeline for enhanced cleaning will be based on the risk of potential contamination and the type of research taking place. EH&S will coordinate closely with the department and PI to determine the appropriate cleaning procedure to limit the impact to the research areas. Access to research and common spaces may be restricted for a limited time to allow for our campus cleaning team or an outside vendor to respond. Cleaning will typically occur on the same day or evening of the notification.

Appendices

Context-Specific *Additional* Guidance and Resources

As noted above, all persons conducting research, scholarship, and creative activity either on campus or in off-campus facilities or field research settings are required to participate actively in protecting against the spread of COVID-19. Minimal requirements to do so are outlined above (see page 6), and include ensuring social distancing through maintaining reduced numbers of personnel on-site, adjusting work spaces and the conduct of work to reduce proximity of personnel, and adherence to CDC recommendations regarding personal hygiene practices, face coverings, and facility/surface/site sanitization.

Some contexts and types of activity require additional practices to help reduce the risk of infection, which are outlined here.

Wet Labs

Additional start-up procedures prior to return?

As per EH&S

Additional daily start-up/shut-down procedures?

As per usual

Additional density guidance?

Creative approaches to planning work schedules and physical lab structure that requires close proximity or that prevents the use of some PPE, is recommended. Labs and work schedules should be arranged so that no more than 1 person is working at a time per aisle in orange phase or 2 people at a time per aisle in yellow phase.

Additional PPE?

In addition to face coverings as required for all activity, disposable gloves and face shields should be used if working conditions will not allow required social distancing as described above (density guidance) or involve protracted contact.

Additional disinfection?

All equipment and instrumentation should be disinfected *after each use*, as well as at the beginning and end of every shift or workday.

Equipment-Intensive/Dry Labs

Additional start-up procedures prior to return?

As per EHS

Additional daily start-up/shut-down procedures?

Additional density guidance?

Creative approaches to planning work schedules, physical structure and processes (e.g., sequential rather than simultaneous activity) that requires close proximity or that prevents the use of some PPE, is recommended.

Additional PPE?

Gloves, surgical masks, and face shields should be considered for personnel who work on tasks requiring personnel closer than social distancing guidelines or for protracted periods of time.

Additional disinfection as per EHS

Clinical Trials

Additional start-up procedures prior to return?

As per EH&S and as outlined in clinical trials site SOPs.

Additional daily start-up/shut-down procedures?

To decrease potential exposure, the research team or facility will pre-screen research volunteers (RVs) via phone whenever possible one day prior to their scheduled study visits. Appointments will be rescheduled if RVs are known positive COVID-19, have high exposure risk (unless that is expected of the study), or exhibit COVID-19, or flu- or cold-like symptoms. RVs must wear face coverings at all times unless directed by study staff to remove their face coverings for a study procedure.

RVs should be emailed an information sheet explaining what to expect at their visit. ["Info Sheet for Human Subjects" https://blink.ucsd.edu/research/covid-19/research-ramp-up.html#Forms-/-Resources-/-Quick-Links] This includes hand washing before the visit and wearing a face covering. Some RVs may be asked to call the study team upon arrival and parked. RVs may wait in their cars and called when they are ready to be seen to minimize the number of people in the waiting area.

All visitors accompanying RVs must be screened, and wear face coverings, and wash their hands before the visit.

RVs with extended stays or procedures (e.g., overnight stays) may be referred for COVID-19 screening prior to their appointment. Principal Investigators should contact ctpmo@ucsd.edu for additional information.

Additional density guidance?

In waiting areas, use signage [example on OneDrive] to reserve space between people.

Allow only the minimum number of people necessary to the visit and into the clinic space.

Consideration should be made about how visitors wait or congregate for a visit. Waiting rooms may be reserved for individuals who have difficulty walking or need additional assistance or time to meet the study team if the location is far away from parking.

Potentially, all others should wait inside their cars by calling the study team when they arrive to UC San Diego, provide their phone numbers, and wait inside their cars until called to come into the clinic.

Additional PPE?

Disposable gloves may be used but can give a false sense of protection and allow cross-contamination. Frequent and habitual handwashing (without gloves) is likely better than if you wear one set of disposable gloves for the whole day without washing them.

Face shields and other personal protective equipment should be considered depending on the likelihood of the RVs having COVID-19. For most, face shields are not needed.

Whenever employees are wearing face coverings, they must wear their UCSD employee ID with their photo visible to ensure employees can be identified and recognized while at work.

Additional disinfection

N/A

Social, Cognitive and Behavioral Human subjects research in dedicated research facilities

Additional start-up procedures prior to return?

Possible start-up needs from EH&S, especially for behavioral, cognitive research labs.

Additional daily start-up/shut-down procedures?

To decrease potential exposure, the research team will pre-screen research participants via phone whenever possible one day prior to their scheduled study visits. Appointments will be rescheduled if RVs are known positive COVID-19, have high exposure risk (unless that is expected of the study), or exhibit COVID-19 or flu- or cold-like symptoms. Participants must wear face coverings at all times unless directed by study staff to remove their face coverings for a study procedure.

Participants should be emailed an information sheet explaining what to expect at their visit. This includes hand washing before the visit and wearing a face covering. Some participants may be asked to call the study team upon arrival. Participants may wait in their cars and be called when ready to be seen to minimize the number of people in the waiting area. Multiple participants/visitors may be seen jointly only if currently living together.

All visitors accompanying participants must be screened, and wear face coverings, and wash their hands before the visit. Only visitors currently living with the participant may be less than 6 feet from the participant.

RVs with extended stays (multiple hours) or procedures (e.g., overnight stays) may be referred for COVID-19 screening prior to their appointment. Principal Investigators should contact ctpmo@ucsd.edu for additional information.

Additional density guidance?

In waiting areas, use signage and seating arrangements to reserve space between people.

Allow only the number of people necessary to the visit and into the research space. Ventilation modifications, site changes (outdoors vs indoors), and physical barriers, including clear plexiglass shields may be useful in situations where protracted assessment/testing is anticipated.

Consideration should be made about how visitors wait or congregate for a visit. Waiting rooms may be reserved for minors, individuals who have difficulty walking or need additional assistance or time to meet the study team if the location is far away from parking.

Potentially, all others should wait inside their cars by calling the study team when they arrive to UC San Diego, provide their phone numbers, and wait inside their cars until called to come into the clinic.

Additional PPE?

Disposable gloves may be used but can give a false sense of protection and allow cross-contamination. Frequent and habitual handwashing (without gloves) is likely better than if you wear one set of disposable gloves for the whole day without washing them.

Additional disinfection?

All participants should use hand sanitizer or hand wash upon entry into the research space. Materials touched by researcher or participant will require sanitization between use.

Imaging Research Involving Human Subjects

Additional start-up procedures prior to return?

Consider requesting additional outdoor seating (with sunshade) that supports social distancing to be placed in the proximity of the facility.

Additional daily start-up/shut-down procedures?

Pre-screen research volunteers (RVs) via phone [such as "Imaging Research Phone Screen Form" [https://blink.ucsd.edu/research/covid-19/quick-links.html#Research-Volunteer,-Patient-and] whenever possible one day prior to their scheduled study visits. Appointments will be rescheduled if RVs are known positive COVID-19, have high exposure risk (unless that is expected of the study), or have exhibited COVID-19 or flu- or cold-like symptoms in the past 21 days. Parents/caregivers accompanying the RV should also be screened.

Upon entry into the facility, all researchers and research participants/parents/caregivers should wash their hands or use hand sanitizer. RVs and parents/caregivers must wear face coverings at all times unless directed by study staff to remove their face coverings for a study procedure. Only those residing with the research participant may be within 6 feet of the participant.

RVs should be emailed an information sheet explaining what to expect at their visit. This includes hand washing and/or using a provided hand sanitizing station upon entry to the facility and wearing a face covering for the duration of their visit. Whenever possible, RVs should be asked to call the study team upon arrival and wait in their cars for a

member of the study team to escort them to the facility to minimize the number of people in the facility. Alternatively, RVs should remain in a designated outdoor area, while maintaining proper social distancing until a study representative can escort them to their appointment location. ["Info Sheet for Human Subjects" https://blink.ucsd.edu/research/covid-19/research-ramp-up.html#Forms-/-Resources-/-Quick-Links].

Study staff should only work if feeling well and healthy and should daily self-screen using UC San Diego standardized symptom screening; Research Volunteers should use the same criteria. Study staff should wear face coverings during the study procedure.

Additional density guidance?

Additional procedures may be required if the researcher and RV need to be within 6 feet for the procedures. This time should be minimized and strategies to limit the extent of exposure should be considered (e.g., sequential rather than simultaneous activity).

FACILITY SPECIFIC

Establish scheduling guidelines and restrictions to minimize physical overlap between different groups using the facility.

Establish a parent/caregiver limitation (e.g., maximum of 1 parent/caregiver allowed with a research volunteer and no additional family members/friends allowed inside the facility). When applicable and appropriate for the population under study, RVs should be encouraged to arrive at the appointment alone.

Establish maximum occupancy limitations for all rooms in the facility and post relevant signage (e.g. do not sit here signs placed on chairs; limitation on number of people per room; space seating at least 6 ft. apart). Examples and downloads of signage can be found on the Research Ramp-up blink page (https://blink.ucsd.edu/research/covid-19/research-ramp-up.html#Forms-/-Resources-/-Quick-Links).

All signage must be available /presented in the language of the participants.

Establish procedures and guidelines that maximize social distancing while placing the RV in and taking the RV out of the MRI scanner. Provide additional training as needed.

Communicate facility-specific guidelines to all users of the facility via email, posted policies, and website. All materials must be presented or posted in the language of the participants.

STUDY SPECIFIC

Each study will comply with facility-specific guidelines regarding density restrictions. To further minimize density, studies should plan on conducting non-MRI-related procedures outside of the facility.

RVs should wait outside or in their cars until the study team calls or fetches them in person while leading with a safe social distance. The RVs and study team should plan on going directly to the pre-testing or imaging rooms, bypassing the waiting areas. Exceptions can be made for minors, individuals with difficulty walking or other reasons preventing them from waiting outside or in their car.

Parents/caregivers accompanying RVs must wait outside of the facility during the scan session. Exceptions can be made for studies with special circumstances with the prior approval of the facility. Only those dwelling with the participant are allowed within 6 feet of the participant during the sessions, unless an exception has been approved.

In addition to following the facility-specific density restrictions, limit the number of study staff present to the minimum needed for safe and successful visits.

Additional PPE?

Disposable gloves may be used but can give a false sense of protection and allow cross-contamination. Frequent and habitual handwashing (without gloves) is likely better than if you wear one set of disposable gloves for the whole day without washing them.

Face shields are not required. Face coverings are required at a minimum. Face shields and other personal protective equipment should be considered depending on the likelihood of the RVs having COVID-19. For most, face shields are not needed.
MRI safety and compatibility of face coverings should be assessed. The study group should be prepared to provide the RV with an MRI-safe face mask.

Additional disinfection

FACILITY SPECIFIC

Establish procedures for disinfecting and sanitizing study areas and major equipment throughout the day and for monitoring compliance. Facility staff should disinfect and sanitize at the beginning of each non-holiday weekday. Develop a facility-specific cleaning checklist to ensure key areas and equipment are regularly disinfected (see UC San Diego's Center for Functional MRI's checklist (https://blink.ucsd.edu/_files/research-tab/research-continuity/cfmri_coronavirus_cleaning_checklist.pdf). Establish procedures for safe management of laundry and PPE.

Communicate facility-specific disinfecting and sanitizing guidelines to all users of the facility via email, posted policies, and facility website.

STUDY SPECIFIC

Each study group must follow the facility procedures for disinfecting and sanitizing after each scan. Groups should also disinfect and sanitize prior to a scan session when it is

likely that the study area and equipment have not been recently disinfected (e.g. on a weekend).

Animal Research

Additional start-up procedures prior to return?

As per EH&S

Additional daily start-up/shut-down procedures?

No

Additional density guidance?

Shared housing and procedure rooms require coordination between personnel specific to each location. See facility supervisor for specifics.

Procedures necessitating higher densities (surgeries, coordinated treatments and data collections), preapproved through the research plan emphasizes proper PPE and sanitation procedures, and efforts to sequence rather than conduct activities simultaneously.

Additional PPE?

Additional location-specific mask/face covering procedures are in place. See facility supervisor for specifics.

Additional disinfection

Increased disinfection of common surfaces outside of animal areas (door entry hardware, biometric devices, etc.) is being performed by facility personnel. Similarly, common spaces in the facility will comply with disinfection protocols.

Community-Based Research in researcher-controlled settings (classrooms, clinics, etc.)

Additional Start up procedures? (prior to return)

Before returning to the field, researchers should consider whether remote interaction via telephone or internet can produce equal quality data. When feasible, remote virtual assessments and interviews should be conducted.

Additional daily start-up/shut-down procedures?

Community-based research in densely populated sites, in sites with high rates of COVID-19, in sites that lack adequate medical care, adequate testing and contact tracing is risky, and should be conducted remotely to the greatest extent possible. All community-based research across the border of Mexico should be conducted remotely, because of a significant lack of testing and contact tracing, unless that research is directly related to COVID-19, its diagnosis and treatment.

All community participation in campus-based research activities should be conducted remotely to the greatest extent possible.

To decrease potential exposure during essential community-based research, all researchers, and all community-based participants must be pre-screened one day prior to any in-person interaction and on the day of the interaction. In-person interaction should be rescheduled if participants are known to be COVID-19 positive, report exposure to individuals with the diagnosis, have high exposure risk, or exhibit COVID-19-, flu- or cold-like symptoms. All researchers and participants must wear face coverings at all times, regardless of known negative COVID-19.

All researchers and community participants should be contacted one day before any in-person interaction, with a set of guidelines, including the pre-screening of all participants, hand washing or hand sanitization before the in-person interaction and wearing face covering. Additionally, common surfaces such as tables and chairs, doorknobs and lavatory facilities in the community-based site should be disinfected immediately before and after any in-person interaction. If feasible, outdoor waiting is preferred.

Note: All written messaging and signage must be in the language of the community participant.

Additional density guidance?

Allow only the minimum number of researchers and community participants necessary to accomplish the goals of the in-person activity. Visits should be as brief as possible. No visitors or children may accompany researchers or community-based participants during in-person interaction, unless the population under study involves minors or disabled, or added participants are essential to the goals of the in-person interaction. If support services are provided to enable participation (e.g., babysitting or elder care), this must be off site.

Researchers and community participants should remain a minimum of 6 feet apart while waiting for in-person activities to begin, and through the duration of the in-person interaction. There should be no physical contact of any kind, handshakes or hugs among researchers, or between researchers and community-based participants.

Meetings should take place outdoors whenever possible. When meeting indoors, rooms should be well-ventilated, and large enough and seating positioned so as to enable 6 feet of separation between all participants during any in-person interaction.

When traveling by car to the community-based site, no more than two researchers should occupy a single vehicle. Public transportation to community-based sites is discouraged. But should researchers need to use public transportation to travel to a community-based site, they should exercise all precautions regarding physical distancing and face coverings, and adhere to the UC San Diego travel guidelines.

Additional PPE?

All researchers and participants must wear face coverings at all times, and should consider if the specific setting requires face masks, shields or plexiglass partitions.

Frequent handwashing or sanitization among researchers and community participants is essential before, during and after interactions between researchers and community-based participants. Tables and chairs, doorknobs and lavatory facilities should be disinfected before and after in-persona interaction.

Additional disinfection

N/A?

Social sciences/humanities field research

Field research is an integral and essential part of the research mission at UC San Diego. Preparation and planning for conducting safe field research present challenges because of travel restrictions and potentially limited key supplies, communication, and access to medical services.

Additional start-up procedures prior to return?

As per EH&S

Additional daily start-up/shut-down procedures?

To decrease potential exposure, the research team will pre-screen staff one day prior to their scheduled observations as well as on the day of their observations. Appointments will be rescheduled if researchers are positive to COVID-19 or exhibit COVID-19 or flu- or cold-like symptoms.

Additional density guidance?

Researchers must wear face coverings at all times and observe locale-mandated social distancing requirements. Observations should take place outdoors whenever possible. When observing indoors, rooms should be well-ventilated, and large enough to enable 6 or more feet of separation between all researchers and participants during any in-person interaction. Before returning to the field, researchers should consider whether remote interaction via telephone or internet could produce equal quality data. When feasible, such virtual data collection should be used.

Additional PPE?

Face shields may be mandatory where social distancing is not possible.

Additional disinfection?

Research site, including all common touched surfaces, should be disinfected before and after study/engagement.

Performing Arts

Additional Start up procedures?

If performance or rehearsal spaces have been unused for any length of time, departments should work with Facilities Management to ensure appropriate cleaning and determine if any props should be relocated for health safety purposes.

Additional daily start-up/shut-down procedures?

The CDC advises that risk of viral transmission rises when individuals work in close proximity (at distances of less than 6') for periods of as little as 10 minutes. To prevent transmission, personnel who will be working in proximity to one another should be pre-screened for COVID-19 symptoms on the day of the activity. Those reporting symptoms are not permitted to participate in on-site activity.

Additional Density Guidance

Some performing arts (such as vocal and wind instruments) make risk mitigation extremely difficult and may not be able to resume in-person until the risk of infection declines. Performing artists should limit rehearsal/performance time in close proximity to one another. Creative approaches to planning activity that requires close proximity or that prevents the use of some PPE might include the use of tall plexiglass dividers in situations where face coverings would substantially interfere, such as in rehearsals and performances with vocal/brass/reed/wind instruments, etc. Where possible, use larger-than-typical rehearsal space, or rearrange personnel via seating changes at greater-than-typical distance from one another. Ventilation changes may be considered. If feasible, outdoor venues should be considered. Additionally, remote participation of individuals integrated for simultaneous rehearsal or presentation of the performance should be considered when feasible.

Additional PPE?

Additional disinfection?

Sanitation of studios, rehearsal and performance spaces, shared instruments or materials, equipment such as music stands, easels, etc. is required before and after use. All participants must wash or sanitize hands before engagement in the practice or performance.

Natural Sciences Field Research (Additional Guidance)

Field research is an integral and essential part of the research mission at UC San Diego. Preparation and planning for conducting safe field research present challenges because of travel restrictions and potentially limited key supplies, communication, and access to medical services. You can download "Field Research: Additional Guidance During COVID-19 Pandemic" here: https://blink.ucsd.edu/_files/research-tab/research-continuity/Field-Research-Addl-Guidance-COMBO-FINAL.pdf.

Additional Resources

Campus Phase Explanation (assigning personnel to phases)

A transition between Campus Phases has the potential to occur with little warning and may necessitate the immediate curtailment of all on-site activity. To facilitate a coordinated and measured response to changing density restrictions, we ask that each PI or Responsible Faculty Member classifies personnel according to on-site access needs. An individual who is identified as requiring access in a restrictive phase automatically has access in subsequent, less restrictive phases. Determinations should be made on the basis of adhering to restrictions on density within research facilities; how feasible it is for an individual to conduct their work remotely; the criticality of the work for the success of the research program. Classifying an individual as "Green" does not imply that the individual is non-essential, it merely indicates that on-site access is not essential to that individual's work.

The Red Phase is characterized by a "stay-at-home" order from government officials, and campus-mandated remote work. Only essential activity is permitted on campus (or at any UC San Diego research site) during this phase. PPE, social distancing, and sanitization protocols are required. Generally, no more than 15% of personnel who normally work on campus will be approved for on-site work in the Red Phase.

Personnel guidance: Only a small proportion of personnel (no more than 15%) will be designated "essential," with continuing on-site activity during the Red Phase. These personnel are essential to functions that cannot be suspended or performed remotely, conducting "critical activity" as defined by the campus.
Persons who are 65 years or older, have a chronic underlying condition, or have a compromised immune system are particular vulnerable to severe impacts of respiratory infection. Members of these vulnerable populations are required to have the option to work remotely during the Red Phase.
Students and trainees cannot be required to work on-site during the Red Phase. Students cannot be designated "essential" except by approval of the department chair/division head and dean. Such designation is generally restricted to situations in which on-site activity is required for the timely completion of students and trainees' degree.

The Orange Phase is characterized by a modest increase in on-site activity (including field research, community research, and clinical sites). "Stay at home" orders may remain in place; remote work is required for those whose work can be conducted remotely. PPE, social distancing, and sanitization protocols are required.

Personnel marked as "orange" are permitted to access on-site facilities when public health guidance and campus leaders relax restrictions to allow small numbers of personnel to work on-site. To ensure that risks of viral transmission are limited, personnel should still be kept to a minimum (generally, no more than 25% of personnel on-site at any time). "Orange" personnel

are essential to functions and activities that cannot endure a period of prolonged suspension and cannot be performed remotely. Members of vulnerable populations are strongly recommended to have the option to work remotely. Students and trainees cannot be required to work on-site during an Orange Phase. During the Orange phase, students engaged in credit-bearing academic work (theses, independent study, experiential learning) may work on-site.

The Yellow Phase is characterized by a more significant increase in on-site and field activity of normal activity. Remote work is required for those whose work can be conducted remotely. PPE, social distancing and sanitization protocols are required.

Personnel marked as "yellow" are permitted to access on-site facilities once density restrictions are further relaxed by the campus in response to improving public health conditions. Personnel density should be moderate, generally no more than 50% of personnel on-site at any time. Personnel able to perform functions remotely should continue to work off-site. Vulnerable groups are recommended to work remotely.

In **the Green Phase**, activity may return to a close approximation of pre-COVID levels. Subject to any campus restrictions, all personnel are permitted to access on-site facilities.

Impact on Equity, Diversity, and Inclusion (EDI)

In light of the disproportionate impact of the campus closure on faculty with children living at home and faculty supporting other people in their homes (whether parents, relatives, or sick members of their family), the Continuity of Research Task Force urge PIs, department chairs, and deans to consider EDI issues when making decisions about ramping up research. Early career faculty, postdocs, and graduate students are more likely to have young children at home (and lack daycare during the COVID-19 crisis), potentially making both work from home and returning to campus nearly impossible. Researchers should not be penalized and, where possible, flexible accommodations should be considered.

Even with the ramping up of digitization and remote access to collections, certain kinds of research may not be able to move forward until travel restrictions are lifted (e.g., some kinds of on-site research, field work, archival visits, and community engaged research). Research with and on underserved and/or vulnerable communities will be disproportionately affected, as will faculty working with these communities. Since the implications for career development and tenure and promotion are significant, the Task Force calls on both our colleagues across campus and the campus leadership to recognize, and where possible mitigate, these extenuating circumstances when evaluating productivity.

Ethical Considerations and Resources

As research teams return to research, they may encounter specific situations that are not addressed by policies or regulations. Some of these may be ethical questions. For example, not everyone on a team will agree on what counts as a "reasonable risk." How should PIs or lab supervisors react if this happens? Not everyone can contribute to the research as much as they

could before. Some employees may have unavoidable care-giver duties, such as home-schooling their children. Others required to work remotely may struggle with online communication. Differences in amount of work will cause inequities in workload. How should PIs and supervisors handle this? As research is modified due to the pandemic, what work is still appropriately charged to externally funded grants? How should employees or supervisors handle non-compliance by others with COVID-19 best practices? These are just examples from a universe of possible concerns.

Research teams are always challenged by issues such as these, but the pandemic and resulting new requirements can be expected to exacerbate many of these clashes of interests and present situations that are not obviously consistent with our previous experiences. Clearly no "one-size-fits-all" advice is applicable here. However, it is useful to bear in mind the asymmetry in the balance of power. PIs and supervisors have a moral responsibility to take into account the exceptional situations many of their employees are in and to ensure that they feel that they are in a safe and healthy working environment.

In light of these potential ethical challenges, ORA has established an ad hoc committee with expertise in ethics. The committee members are available to discuss these questions when they arise, raising issues to consider and connecting the issues to existing ethical norms and practices. The role of this committee is to help articulate questions and options, and to consult or refer to additional experts as needed. However, the ultimate responsibility for decisions will rest with the PIs, Chairs, and Deans. Please contact research@ucsd.edu.

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[i] Effective May 10, 2020 and continuing until further notice, the Health Officer of the County of San Diego issued "a strong recommendation … that all persons who are 65 years or older, have a chronic underlying condition, or have a compromised immune system self-quarantine themselves at home or other suitable location."

[ii] Effective May 10, 2020 and continuing until further notice, the Health Officer of the County of San Diego requires that employers conduct temperature screening or symptom screening of all employees. Symptom screening prohibits employees from entering the workplace "if they have a cough, shortness of breath or trouble breathing, or at least two of the following: fever, chills, repeated shaking with chills, muscle pain, headache, sore throat, or new loss of taste or smell."