**UC Berkeley Guidance for the Ramp-Up/Ramp-Down
of Research Activities during the COVID-19 Pandemic**

**prepared by
UC Berkeley's Research Recovery Committee**

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The work of our Committee greatly benefitted from the review of guidelines shared by the University of Washington, UCLA, UCSF and Stanford University.

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Introduction and Executive Summary

The purpose of this document is to provide a set of principles, guidelines and processes to facilitate the gradual ramp-up – and potential ramp-down – of on-campus research activities at UC Berkeley during the COVID-19 pandemic. The work of the Research Recovery Committee unfolded concurrently with the work of eight other campus-wide committees convened by Chancellor Christ. As we developed our recommendations, some essential details were not (yet) available, for instance, the potential campus-wide testing strategy, the system to be adopted for health monitoring, plans for ramp-up of custodial staffing, overall workforce considerations etc. This document provides our recommendations based on the current status, best available information and current stated assumptions. We expect that the recommendations and guidelines outlined below will continue to be adjusted as state and local government guidance evolves and further information about overall campus processes becomes available.

We recommend:
- A phased approach to the **gradual ramp-up of on-campus research activities** – and potential ramp-down – should future local health conditions require this.
- Phase 2 will proceed with a carefully considered **building-by-building approach** that initially will **focus on buildings that provide a home to experimental laboratory research** (laboratory-intensive buildings), though planning for additional types of research is underway.
- A pragmatic and decentralized approach that engages **deans, department chairs and research unit directors** in the process of approving research activities under their purview.
- The establishment of **Building Oversight Committees** that will solicit and review research ramp-up proposals provided by faculty and researchers to manage personnel density in the spaces they need to access.
- **The adoption of campus-wide templates** to help Building Oversight Committees solicit and review proposals from individual faculty members/facilities managers, which will be provided to deans, department chairs and research unit directors and the Vice Chancellor for Research for review and approval.
- **The adoption of campus-wide guidelines** that can be adapted to the needs of researchers working in a variety of settings (labs, workshops, offices, etc.).
- **Oversight and final approval by the Vice Chancellor for Research** to ensure transparency and equity as well as consistent application of guidelines as the process unfolds across the campus.

The Committee thanks the campus research community for their continued partnership and patience as the planning process continues to take shape. These are unprecedented times. We are aware there is a diversity of opinion and perspective regarding the appropriate pace and extent of a resumption of research activity on campus. As we resume campus operations, we will move forward on a step-by-step basis given our understanding that there will be unanticipated developments and unintended consequences. Plans and processes will surely need to be modified as we proceed and learn. And, of course, the status of the COVID-19 pandemic could change at any time. We will analyze and learn as we go. We will remain ready to adjust based on what we learn, and the feedback we receive. Throughout, we will maintain our commitment to transparency, collaboration and meaningful consultation as we evolve, adapt and refine our response.

Guiding Principles

The following principles guided our overall approach:

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1. **Protect the health and well-being of our campus community.**
2. **Resume on-campus research operations gradually using a phased approach with appropriate caution, in the context of local health conditions in alignment and consistent with local orders and ordinances of the City of Berkeley and Alameda County, as well as the State of California.**
3. **Urge consultation and flexibility for those campus employees who do not wish to return to campus to work.**
4. **Adopt a process for granting access to campus facilities for research activities that is as transparent, equitable, and fair, as possible.**

A Phased Approach

PHASE 1: During Shelter in Place Orders
- PIs transition their research labs to majority-remote operation and suspend on-campus research to the greatest extent possible. Only critical research and COVID-19 related research activities are permitted for on-campus access, as approved by the Vice Chancellor for Research.

PHASE 2: Research resumes at low density (~20-25% of normal density in onsite research spaces at any given time)
- **All research that can be conducted remotely should continue to be conducted remotely. All meetings and seminars should remain remote**.
- Priority to return to campus is for research that cannot be conducted remotely, such as research conducted in laboratory settings. Additional priority is recommended for time-sensitive research, along with support for early career faculty as well as postdocs and graduate students close to completion.
- Research involving animals and/or human subjects, and in campus core facilities/ fabrication spaces will follow special additional protocols.

PHASE 3: Increased building and lab density research (~25-50% of normal density onsite at any given time)
- **Most research that can be conducted remotely should continue to be conducted remotely**.
- Basic policies and guidelines are expected to remain largely unchanged from Phase 2, but relaxation of certain density standards may be possible, if warranted by pandemic conditions, public health orders, and in line with the overall campus approach to instruction, in-person on-campus events, etc.

PHASE 4: Restart the resumption of full on-campus research operations (~50-100% of normal density onsite at any given time).
We anticipate that the campus is only likely to transition to this phase when local conditions permit, and when an effective vaccine against COVID-19 becomes widely available.

Assumptions and Limitations

As we developed our recommendations, we had to make assumptions about numerous gating conditions related to resumption of on-campus research activities following the initial shelter-in-place order. Our recommendations are based on the information available from late April - June 15, 2020, reflecting a quickly evolving landscape as the campus leadership -- and the eight other committees charged with charting a course forward -- were assessing the situation and making decisions.

Testing and Health Monitoring
Decisions on campus-wide protocols for ongoing COVID-19 testing protocols, continuous health monitoring and contact tracing are under review by the campus' Public Health Advisory Committee, led by Professor Nick Jewell. Our recommendations rely on the implementation of their recommended measures for the research community.

Workforce Requirements
Clear and transparent guidelines must be in place that govern the rights and responsibilities of all campus employees during this unprecedented time. We understand that such guidance is forthcoming from the Workforce Advisory Committee led by Chief People and Culture Officer Eugene Whitlock and Vice Provost for the Faculty Ben Hermalin.

Training
All on-campus personnel will need to complete a mandatory ten-minute COVID-19 safety training as part of returning to campus (Cal/OSHA requirement). This includes: reviewing understanding of modes of virus transmission routes, symptoms, proper social distancing, PPE/facial covering requirements, personal hygiene and sanitation procedures.

Cleaning & Safety
Facilities Services staff (custodial, trades) are a scarce resource that must be allocated across many needs. Our recommendations are based on the assumption that:
- Facilities Services will regularly clean all public spaces in research-related buildings, including building entries/doors, elevators, elevator lobbies, hallways, bathrooms, door handles, etc.
- Labs and office personnel will be responsible for cleaning within their spaces.
- Facilities Services will provide (and pay for) disinfectant wipes and hand sanitizer.
- On-campus employees will be required to wear facial coverings while working in all relevant research and common spaces. The campus will provide all on-campus employees with cloth facial coverings.
- Best practices for cleaning research facilities have been developed by EH&S and are available here.

Building Ventilation
Buildings must have sufficient HVAC systems to allow occupants to work on campus. We understand that Facilities Services is currently conducting a review.

Off and On-Campus Activities
Activities in off-campus buildings used for university business still fall under campus guidelines. Leased buildings will need to be approved, and distancing/density management plans will need to be reviewed prior to return to resuming on-campus operations.

Travel & Events
We assume domestic and international travel will remain limited over the summer and fall, with interstate travel discouraged and international travel limited to essential only per UCOP and State Department guidelines. We assume that on-campus events and large gatherings will continue to be restricted over the summer and fall.

Coordination with the City of Berkeley
Our overarching approach to resuming on-campus research activities must be in alignment with City of Berkeley, Alameda County and State of California health orders.

Impact on Equity, Diversity, and Inclusion

During this period of gradual increase of personnel and research activity on the campus, we are asking that all deans, chairs, faculty and supervisors consider how their determination as to who is (or isn't) permitted to return to work on campus will impact equity, diversity and inclusion efforts. We recommend that they consider implementing rotation cycles to give a greater number of researchers the opportunity to participate in research activities on the campus, to help reduce overdependence on a few personnel, and to reduce the isolation of others. We understand that decision makers will have many priorities to balance, especially the needs of postdocs and graduate students who are near completion of dissertations and research appointments. We also ask that one consider how child care obligations may unevenly impact women and how they might negotiate alternate schedules that would permit equal participation. We also strongly encourage faculty and supervisors to inquire whether research personnel in their groups are comfortable returning to campus; if not, we encourage them to work closely with the UC Berkeley People & Culture office to find solutions and to review the return to work guidelines on the People & Culture website for further guidance.

Proposed Campus Prioritization, Decision-Making Authority & Approval Process

Prioritization of Building Access during Initial Phase 2 Ramp Up
We recommend that the recommended Phase 2 ramp-up activities should proceed with a carefully considered building-by-building approach. This will initially focus on buildings that provide a home to experimental laboratory research, including engineering workshops, fabrication spaces etc. Planning for additional types of research spaces should proceed swiftly and in parallel.

Overall Decision-Making Authority/Delegation
We assume that during on-campus research ramp-up, in the early stages, not all researchers who seek to return to campus will be able to, due to limitations from the ability to sustain social distancing and low overall building density at floor and building levels. Final decisions on

building density and which buildings will open rest with the Vice Chancellor for Research, in coordination with the Vice Chancellor for Administration and Facilities Services and the campus Recovery Management Team. In the event of a subsequent ramp-down, the authority for establishing priorities for research activities returns to the Vice Chancellor for Research.

Building Oversight Committees
For each campus building the cognizant dean(s) (or the VCR on behalf of its ORUs) is/are responsible for establishing a Building Oversight Committee.

The Building Oversight Committee will be responsible for coordinating the development of an overall building occupancy plan, to prepare the building for opening, including:
- an overall plan for the building occupant flow, signage and use of common spaces, based on guidance from Facilities Services; and
- an overall research/office space density management plan, assigning 'density budgets' for all applicable research spaces, consistent with campus guidelines for different types of research and research spaces, e.g. laboratory research, office space, research involving animals, or human subjects, to ensure overall low density of the building, both by individual lab/office and collectively by floor/building. Committees will receive specific guidelines for setting density budgets.

The committee will solicit and review **research ramp-up plans** ("density management proposals") from faculty members, facility managers or research unit/center staff who direct independent research programs within the building. Proposals will summarize faculty plans to manage their research operations within their assigned density budget. To complete the proposals, faculty and facility/unit directors must work with their research teams (as applicable) to develop detailed standard operating procedures that ensure social distancing, disinfection protocols etc. The plans also require detailed work schedules to ensure that the number of people in each research space does not exceed the assigned density budget for that space at any given time.

Building Oversight Committees will review faculty/unit proposals for alignment with guidelines and assigned density budgets. Deans, or their representatives, will work with the Building Oversight Committees and building managers to review the faculty/unit proposals and validate assumptions of spatial distancing and density. Final proposals will be approved by the Dean – and reviewed by the Vice Chancellor for Research to ensure an equitable approach across buildings and campus.

Appeal Process
The Vice Chancellor for Research will hear appeals for requests rejected at the decanal level; Executive Vice Chancellor and Provost Alivisatos and Chancellor Christ will decide on appeals for requests denied by the Vice Chancellor for Research.

Monitoring & Enforcement
Faculty and staff who have submitted research ramp-up plans are responsible for ensuring that all personnel included in their plan are following the scheduling, distancing and hygiene commitments in the approved ramp-up plan.

We recommend that cognizant campus leadership (deans, chairs, building managers, EH&S) conduct periodic spot checks, and monitor building access data, to ensure that appropriate density, distancing and protective measures are being followed, as well as all required EH&S safety policies and principles. Faculty/PIs with research groups, ORU Directors and Core Facility/Fabrication Facility Directors are expected to conduct periodic checks of their spaces to ensure that all personnel are following density management, social distancing, disinfecting and other safety protocols established for their group/spaces. Non-compliance with policies may result in the revocation of building access privileges for individuals, up to and including the shut down of on-campus research in the non-compliant research group.

Lab/research group members are empowered and encouraged to report recurring noncompliant practices to the lead faculty/PI of the noncompliant group or to their own faculty lead/PI or department chair. Neighboring faculty/groups should make every effort to resolve the problem locally if possible. If safety deficiencies are not resolved locally in a timely fashion, the issue should be escalated to the appropriate department chair, dean, or building oversight committee for swift correction. Any lab member may also submit a confidential concern to the VC Research at vcr@berkeley.edu. Other options for initiating an evaluation of unresolved safety concerns are through anonymous reporting on the [EH&S website](#) or through a campus [Improper Governmental Activity ("Whistleblower") Report](#).

Research Ramp-Down

In the event that local or state public health officials reimpose stricter guidelines or shelter-in-place orders, research activities may need to rapidly ramp-down again. All faculty/centers/units should have a plan in place to implement a ramp-down of on-campus research operations upon short notice.

Phase 2 Guidelines for Building Oversight Committees

- Building density must be managed by room/suite, floor and overall building to allow for social distancing in common spaces such as entryways, elevators, bathrooms and break rooms/common spaces. Buildings/floors with many offices will need to implement schedules to constrain overall density by floor. Shared and core facilities will need to develop schedules to meter use by occupants from other buildings.

- Ramping-up research projects that are distributed over multiple sites or depend on collaborations will require additional coordination.

More specific guidelines relevant for laboratory research activities (including engineering, design and fabrication spaces) are
- **[Guidelines for Building Oversight Committees Assigning Density Budgets](#)**

Phase 2 Guidelines for Faculty and Researchers

Based on the recommendations of the Research Recovery Committee outlined above, Committee members in collaboration with staff in the Office of the Vice Chancellor for Research developed guidelines and templates to help guide the implementation of the Committee's recommendations. The guidelines take into account the different research activities that take place in laboratory, engineering, design and fabrication settings; in core facilities; as well as office and performance spaces. Special guidance applies to research involving animals or human subjects or activities that require research travel.

Laboratory Research Activities (including engineering, design and fabrication spaces)
- **Guidelines for Increasing Onsite Laboratory Research Activities**
- UC Berkeley EH&S Laboratory Start-up Guidelines/Checklist
  Density Management Proposal Form for Laboratory Research
  (to be completed by faculty PIs and research unit/facility directors for submission to the relevant Building Oversight Committee)

Animal Research
- **Supplemental Guidelines for Increasing Onsite Animal Research**
- Animal Research Proposal Supplement Form (to be completed by faculty PIs for submission to the relevant Building Oversight Committee and for review by the Animal Care oversight committee)

Research Involving Human Subjects
- **Supplemental Guidelines for Resumption of Human Subjects Research**
- Human Subjects Proposal Supplement Form (to be completed by faculty PIs for submission to the relevant Building Oversight Committee and for review by the Committee for the Protection of Human Subjects)

Core Research Facilities
- **Supplemental Guidelines for Core Research Facilities**
- Sample Detailed Standard Operating Procedures Template for a Core Facility or Shop
- Core Facilities Proposal Supplement Form (to be completed by core facility directors, faculty PIs, staff for submission to the relevant Building Oversight Committee)

Research in Office and Arts Spaces
- **Guidelines for Increasing Onsite Office-based or Arts Research Activities**
- Density Management Proposal Form for Office-Based or Arts Research
  (Form currently under development)

Guidelines for Off-Campus & Field Research/Travel
- Guidelines are forthcoming.

Research Recovery Committee Membership
Established per [Chancellor Christ's May 6, 2020 Message](#)
(previously referred to as the "Research Ramp-Up Task Force," [roster here](#))

Area Represented	Name	Title
VC Research	Randy Katz	Vice Chancellor for Research; Professor of Electrical Engineering & Computer Science
VC Research	Linda Rugg	Associate Vice Chancellor for Research; Professor of Scandinavian
Social Sciences Research	Max Aufhammer	Associate Dean of Social Sciences; Professor of Agricultural & Resource Economics
Graduate Division & Design Spaces	Gail Brager	Associate Dean, Graduate Division; Professor of Architecture, Building Science
Environment, Health & Safety & EOC Liaison	Patrick Goff	Executive Director, EH&S
Core Facilities & Organized Research Unit Administration	Donna Hendrix	Managing Director, QB3
Human Subjects Research	William Jagust	Chair of CPHS; Professor of Public Health and Neuroscience
Campus Emergency Operations Center	Alicia Johnson	Director of Emergency Management
Office of Laboratory Animal Care	Greg Lawson	Director of OLAC and Attending Veterinarian
Academic Senate Committee on Research	Dennis Levi	Incoming Chair of COR; Professor of Optometry and Vision Science and a Professor of neuroscience
Biological Labs/Research & Core Facilities	Susan Marqusee	Director of QB3; Professor of Biochemistry and Molecular Biology
Physical Sciences Research	Daniel McKinsey	Professor of Physics
Natural Resources / Field Station Research	Nicholas Mills	Associate Dean for Research and Extension; Professor of Environmental Science, Policy & Management
University Libraries	Jo Anne Newyear Ramirez	Associate University Librarian for Scholarly Resources
Public Health & Safe Campus Initiative	Maya Petersen	Associate Professor of Epidemiology and Biostatistics

Arts & Humanities Research	Greg Niemeyer	Associate Professor in Digital Media in Art Practice
Animal Research	David Raulet	Chair, CARSA; Professor of Molecular and Cell Biology
Public Health & Safe Campus Initiative	Art Reingold	Professor and Division Head of Epidemiology and Biostatistics, School of Public Health
Administration & Operations, Decanal Units	Amy Robinson	Assistant Executive Dean, College of Letters & Science
Building Management & EOC Liaison	Harry Stark	Director of Facilities & Engineering, VCRO
Physical/Chemical Sciences Research	F. Dean Toste	Professor of Chemistry
Engineering Sciences Research	Karl Van Bibber	Executive Associate Dean, College of Engineering; Professor of Nuclear Engineering
Administration & Operations, Decanal Units	Heidi Wagner	Assistant Dean for Finance & Administration, Biological Sciences
VC Research & EOC Liaison	Elizabeth Brashers	Chief of Staff to the VCR
VC Research	Tiff Dressen	Special Projects Manager, VC Research
VPAP & Global Engagement	James Ford Ashley Spinelli	Chief of Staff, VP Academic Planning Senior Global Engagement Specialist, Global Engagement Office
VC Research - Academic Personnel & Human Resources	Laura Mays	Human Resources Manager, VC Research
VC Research	Kaja Sehrt	Sr. Development Director, VC Research
Communications Liaison (lead)	Dan Mogulof	Assistant Vice Chancellor, Public Affairs
Communications Liaison (alt)	Bob Sanders	Manager, Science Communications, Public Affairs
Legal Counsel (lead)	Therese Leone	Deputy Campus Counsel
Legal Counsel (alt)	Liv Hassett	Associate Campus Counsel
VC Research Administration, Staff Support	Joel Moldenhauer Syreeta Shepherd	Executive Assistant to the VCR Executive Assistant to the AVCR