

Research in the time of COVID-19

Sheltering in residence from March 2020 helped to achieve a relatively low rate of infection in Santa Barbara county and provide time for us to plan to return to campus better prepared to mitigate risks of infection during this pandemic. Meanwhile the disease is still present in the county and as more establishments open up it is likely that the infection rate will rise, possibly even significantly in some circumstances. In view of this, we will ramp up research methodically in several stages to assure that we have a strong COVID-mitigation plan to minimize risks. By establishing a new culture of consideration for our health and that of others, both on and off campus, we will also hopefully avoid the necessity to again shut down research in any given lab, building or campus-wide. Fortunately, we are joined in this task by some of the most dedicated, diligent, creative, and collegial researchers in the world.

The information below is for researchers, department chairs, deans, directors, and all others involved in the research enterprise to be used in the staged return to research at UCSB.

Guiding Principles for the Research Ramp-Up

Our ultimate goal is to get all research projects underway again at effective levels, albeit with a reduced number of people on campus until the ongoing pandemic is over. As for all other UC campuses, we will ramp the program up in stages. The return of on-campus research will be naturally paced by the time needed for Principal Investigators (PIs) to prepare their research plans, the selection of programs within provided guidelines, the preparation of building operation plans by building committees and the readiness of buildings to enact those plans. The latter will be the responsibility of building committees that will prepare documented plans that will be reviewed and approved by the Deans and Office of Research. These documents will include plans to schedule and monitor access, install signage, setup sanitation stations and prepare other mitigation steps in the building common areas and labs. Examples of best practices and other resources to assist in this process are provided in the documents linked at the end of this memo. We also expect the accumulated knowledge and experience of our community to further inform and improve upon our ability to minimize the risk of infections.

This program will require some new steps for everyone to take but we expect that these will become second nature quickly as we adopt a new and safer way of doing business. The success of the program ultimately depends on everyone doing their part.

We plan for this to be an iterative process. Finer details of the ramp up stages will be guided by experience. The auxiliary documents that are linked to this memo are living documents that will change as we establish a better understanding of how to minimize health risks.

The following are guiding principles that have been established across the UC system with input from all campuses and many of our sister institutions across the nation.¹

Principle #1: Follow local, State, and National Public Health Authority directives to shelter-at-home and maintain physical distancing. Decisions on when UC Santa Barbara will begin to ramp up research (or if necessary, to ramp down research), will be guided by the Governor's Office and the State and County Public Health Departments. While our programs can be more restrictive than the requirements of these sources, they cannot be less restrictive. Given our circumstances with a large, dense population of students and a substantial number of faculty and staff in high risk categories, one can safely expect campus requirements to generally be more cautious than those of the state and county.

Principle #2: Protect the physical and emotional health and safety of the research workforce, maintenance staff, clinical patients and human research subjects. No researcher should feel they are being compelled to work on campus or in the field during periods of shelter in residence directives. At the time of this writing, it is expected that there will be many months ahead with the very real possibility of increases in COVID-19 cases. Therefore, our ability to carry out research and scholarly activities at any stage will depend on everyone being committed to physical distancing, face-covering, and all other recommended safety measures.

Principle #3: To ramp up research activities in a way that minimizes risks for all employees and is in compliance with public health guidelines, many possible strategies can be considered including those highlighted here. Make every effort to minimize the number and density of people working on campus in order to minimize interactions. Plan tasks in advance in order to maximize effectiveness while minimizing time spent on site.

The number of distinct individual researchers allowed to carry out on-campus research at any given time will be limited. It **may** not be possible to include all research programs in the earliest stages of the ramp-up and deciding which ones to hold back will be difficult. **If necessary**, basic criteria have been provided to assist in this process in the [Ramp-up stage definitions and guidelines](#) document. These criteria were prepared by the UC Council of Vice Chancellors for Research and are being adopted across the UC system for consistency. **Note that research that involves direct interaction with human subjects does not appear until Stage 5. However, we are looking into bringing that forward to Stage 4.** We hope that at any given stage we can quickly establish an excellent record of operation with effective mitigation protocols that will enable the next stage to follow as early as possible. We are confident that our research community will find equitable choices for the research included in each stage.

Organizing the Research Ramp-Up

There will not be a return to “business as usual” until the pandemic has ended. Access to campus will continue to be restricted until then. Suitability of research spaces for occupation in this period will need to be carefully understood and scientific understanding of the transmission properties of COVID-19 shall be taken into consideration in planning how research will be carried out. This

¹ Issues related to human resource policies and funding of research are not included in this document.

includes understanding HVAC system air-change rates and any cross space ventilation issues, clear signage, face coverings, and hand sanitizers, etc. See links at the end of this document for guidance to aid in preparing COVID-mitigation plans.

Building Committees

The goal is to establish transparent and effective mitigation plans at the level of individual buildings and labs that are reflective of the real workings and knowledge of those spaces. At the same time we should benefit from the sharing of best practices, avoid duplicative work, and ensure that for the well-being of our researchers we can all make informed and timely decisions. The goal is research at minimal health risk during a serious pandemic.

Building committees are a key component of the program. They are at the right level to manage building-specific research safety plans, coordinate access for researchers, and interface with individual research groups. They should include department chairs/unit directors or their delegates and select faculty to review the ramp-up plans prepared by individual groups to choose those to include in the building plan for the ramp-up stage. Building plans will go to an oversight committee (see below) for review and approval. See [Guidance for Building Committees](#) for more information.

All activities in the building will be under the scope of this committee including ensuring that all personnel have a good knowledge of the potential health issues and mitigation practices. For this purpose, we have compiled [Guidelines for Establishing Safe Research Practices](#) and have also prepared a [COVID-19 safety presentation](#) that all researchers are expected to study. **Note that the California State COVID-19 reopening guidelines require a risk assessment. If the guidelines we have provided are followed, the risks are minimized sufficiently to meet State and County Guidelines. If the guidelines we provide cannot be met (e.g. tasks require people to be within 6 feet or less of each other for short times), then additional protection must be proposed to compensate. We suggest you consult with Alex Moretto of EH&S if you need help with this.**

All researchers will also be sent a daily Symptom Screening survey that they will complete and which will help guide them should they feel unwell. It will be important to understand and monitor building access to assure that occupancy is kept at the desired level and to be able to facilitate fast contact tracing and other remedial actions should they be needed. To this end an Access Monitoring system has been developed that each building committee should deploy in their spaces. See [Symptom Screening and Access Monitoring](#) for more information.

As noted above, equitable criteria have been developed for each ramp-up stage to maintain consistency across campus. These criteria are included in the [Ramp-up stage definitions and guidelines](#). We expect the selection process to be mainly managed by the Department Chairs and Deans, with assistance from lab/facility directors, consulting faculty and others as necessary. Programs started in early stages should be considered for balance with new ones.

The goal is to establish a culture of health safety in which we help each other to improve over time. Building committees will work closely with the Deans and the Office of Research to share experiences and provide appropriate and timely reporting.

While the interdisciplinary nature of our campus will continue to be a strength through this pandemic, the lack of traditional departmental “boundaries” to research spaces complicates coordination tasks. As such, the Deans at the head of the various Divisions on campus will establish forums around thematic [Research Building Groups](#) that will review and share plans and best practices as presented by representatives of the committees for the buildings in their groups. Buildings will have differences in such things as ventilation, access control, and the nature of shared spaces. It is probable that each building will have a unique operational plan.

Oversight

An Oversight Committee will verify that stage plans are ready to go and that operations in a given stage are meeting the desired level of mitigation of risks. The committee will provide support by interfacing with other control points on campus to help locate necessary resources and will assist with any problems that may arise. The Vice Chancellor for Research will chair the committee. Its membership will include Deans, management/expert staff from DFSS, the Chair of the Academic Senate Research Committee, and other representatives of the campus research mission. The committee will review and revise criteria of evaluation, establish new policies, and may intervene in disputes when necessary.

UCSB Resources for Ramping up Research

- [Ramp-up stage definitions and guidelines](#)
- [Guidelines for Minimizing Risks](#)
- [Guidance for Building Committees](#)
- [Research Building Groups](#)
- [Symptom Screening and Monitoring](#)
- [COVID-19 risk mitigation presentation](#)
- [EH&S Biological Safety COVID-19 Resources](#)

Federal, State and Local Government Resources

- [Considerations for Institutes of Higher Education](#)
- [CDC Guidance for Colleges and Universities](#)
- [CDC Guidance for Cleaning and Disinfecting Your Facility](#)
- [California Department for Public Health Guidance for Colleges and Universities](#)
- [California State Roadmap](#)
- [California State Industry Guides and Checklists](#)
- [Santa Barbara County Public Health Guidance](#)