



RESEARCH LABORATORY ACTIVATION EXECUTIVE SUMMARY

Department: Biology	Implementation Date: June 2020	Issue Date: 5/12/2020 Revision Date: 5/28/2020	Authored By: SH&S VK/RF
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**Guiding Principles:**

- ✓ Protect the students, staff, faculty and the community
- ✓ Operational integrity and compliance
- ✓ Commitment to academic excellence, standards and initiatives
- ✓ Protect the research process and intellectual property
- ✓ Flexibility to quickly respond to shifts in Public Health orders

**Key Factors Influencing Timetables:**

- Current phase of Public Safety orders
- CSUSM policy allowing campus access by students [priority status]
- Acceptable risk mitigation for temporary interactions in place of social distancing protocol [i.e., barriers, number of students/faculty in same space, frequency and type of close proximity engagement including direct contact]
- Level and frequency of equipment, gear and impact area cleaning
- Availability of PPE and reliability of supply chains
- Availability of rapid results testing

Principal Investigators are expected to create a plan to monitor research activities within the labs or other areas under their control. PIs must submit a lab safety plan [to SH&S] establishing methods used to protect the health and safety of researchers in their group.

Before allowing greater researcher access to university facilities, lab reactivation plans will need to account for compliance with health and safety directives as required by Public Health agencies. Compliance with these requirements will potentially involve adjustments to scheduled/work-shift access, required facial coverings, social distancing and enhanced disinfection of contact surfaces.

There are many laboratory procedures, supervision requirements and collaborative activities that will require lab personnel to work in close proximity to each other [within 6 feet]. Situational engineering controls, work practices and personal equipment will be required when this occurs.

**Process:** A template will be provided to the Responsible Person/Principal Investigator/Faculty to complete which will demonstrate the Reactivation Plan for the Instructional Laboratory course. The plan will be approved and moved to SH&S by the Dean authorizing the course to move forward. SH&S will evaluate the submission and provide final plan details to the Dean.

**Current San Diego County Health Order:**

[https://www.sandiegocounty.gov/content/sdc/hhsa/programs/phs/community\\_epidemiology/dc/2019-nCoV/health-order.html](https://www.sandiegocounty.gov/content/sdc/hhsa/programs/phs/community_epidemiology/dc/2019-nCoV/health-order.html)

## REQUIREMENTS PRIOR TO RESUMING RESEARCH LAB ACTIVITIES

### Safety Equipment:

1. Confirm PPE availability in labs and ancillary areas are sufficient for curriculum being performed for the entire session.
2. Confirm proper operational status of biosafety cabinets and fume hoods. Check to see that ventilation rate increases when sash is lifted; test override on fume hoods are working properly.
3. Inspect condition, restraint system and regulators for all compressed cylinders.
4. Inspect chemical inventory and storage conditions for any containment problems, unusual odors, or missing or damaged labels. Remove any substances that cannot be identified.
5. Inspect cold storage units for temperature range (is normal) and any water leakage from the units.
6. Confirm lab safety equipment is present and has been recently inspected [within 1 month]. This includes first-aid kit, spill kit, fire extinguisher,
7. Confirm sufficient quantities of approved disinfectant materials are available in the lab area. A list of EPA approved disinfectants effective for COVID-19 can be found at this link: <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>
  - a. Cleaning & Disinfection plan will be provided by SH&S for applicable research labs to follow at minimum. Labs can create a plan that is more stringent.
8. Contact SH&S if there are any observations of concern.

### Work Practices:

1. **Stagger work times, lunch and break periods** for lab personnel. Determine maximum number of personnel in each room at any one time. Research should be limited to employees and registered graduate students; no undergraduates or volunteers should not be allowed to conduct on-site research at this time.
2. **Track lab activity with daily sign-in and sign-out log outside lab.** This will be invaluable for contact tracing should an employee test positive for COVID-19.
  - **Screening process considerations:** Review campus wide policy
3. **Review authorization and notification protocols.** Determine operational necessity for working after 7:00pm or on weekends.
4. **Coordinate delivery of lab orders** while employees are in the lab. Establish supplier delivery handoff and paperwork signature protocol (no direct contact, pre-designate a drop spot).
5. **Clarify restrictions/work practices** for shared office space, distancing in small equipment rooms and protocol for field research (includes multiple people restrictions riding in the same vehicles).
6. **Do not share PPE,** use personal identification methods to indicate owner.
7. **Disinfect non-disposable PPE,** such as face shields, before and after use. In cases where the PPE is fabric refer to manufacturer guidance for proper cleaning and disinfection.
  - Using disposable gloves inside reusable gloves (i.e. cryogenic safety gloves) may be warranted to prevent potential exposure from previous use.

8. **Place Restrictions on high hazard procedures.** Conduct research activities involving higher hazardous components, reactions, or processes between 9:00am and 3:00pm.
9. **Conduct meetings in virtual platform.** Group meetings and one-to-one discussions should continue to occur virtually whenever practical.
10. **Face covering, face-shield, gloves, lab coat will be required when social distancing is not possible or feasible.** When staff or faculty member needs to observe a student or employee's work more closely [within 6 feet] for an period longer than a momentary passing [a few seconds] as would occur in hallways or sidewalks, that staff or faculty member should be wearing a face shield in conjunction with a face covering.
11. **Allocate time before and after workday to disinfect** sink handles, door handles on cabinets, refrigerators, freezers, incubators, microwaves; touch points on centrifuges, microscopes, regulator valves, hood sash handles, light switches, sinks, tools, computers, phones, chair backs and arm rests, etc.
  - Should be part of the plan submitted
12. **Some common items should not be shared** such as safety glasses, lab coats, pens etc. Any personal items used or worn while working in the lab and will be removed by lab personnel when leaving work will need to be disinfected at the end of the workday. This would include eyeglasses, mobile phones, flash drives, headphones, AirBuds, hydro flasks, tumblers, keys and card key, chapstick/lip balm, etc.
13. **No pets** other than service animals will be allowed in research areas.
14. **Phlebotomy in research lab areas is not allowed** without direct authorization from the applicable Dean and Institutional Biosafety Officer.
15. **Receipt, shipment or transport of infectious substances must be pre-approved** by SH&S Director.
16. **Virus isolation in cell culture and initial characterization of viral agents** recovered in cultures of SARS-CoV-2 specimens (i.e., specimens from COVID-19 patients) are not recommended except at a BSL-3 facility.
17. **Conduct a safety bench briefing at the beginning of each week** with all employees working in that lab. Review procedures, expectations and potential problems, operational concerns with equipment, hazardous agents, exposure control, sufficient available resources, and communication for unattended processes.

#### **Safety Plan Checklist:**

- Develop a written infection control safety plan. Plans should be flexible enough to enable swift ramp down of lab activities to a more restrictive phase in response to any changing circumstances.
- Lab practices should be consistent with campus policy for hand washing, face covering, health screening and physical distancing requirements.
- Take inventory of PPE, reagents and other consumables. Order supplies to ensure sufficient stock supplies for restart and continuous operations.
- Inspect all lab equipment for any indication there may be a problem when used.

- Schedule cleaning/sanitizing of labs and research workspaces prior to restarting work and on a continuing basis as research continues to be ramped up.
- Coordinate research operations utilizing shared space to maintain social distancing.
- Anyone returning from out-of-state or international travel must follow current guidance on 14-day self-quarantine prior to reporting to campus.
- Account for any unique or special needs of faculty, staff and students to attend labs.
- Work practice signage are posted when appropriate at building entrances, elevators, bathrooms, breakrooms, walk-in cold rooms, locker rooms, meeting rooms, offices and laboratories. Visual cues such as floor tape for easy delineation of distancing may be helpful.
- **Faculty and employees will need to review procedures for assisting an injured person in the lab to get emergency medical care, CPR/first aid; assisting injured employee(s) to an emergency eyewash or safety shower.**
- Provide awareness training on all protocols prior to initial return to work in research labs. Document all employees working in research labs that they have read and understand the current work practices for face coverings, social distancing, health screening, PPE, and staggered schedules. Provide updates to employees whenever there are changes in requirements by Public Health agencies with jurisdiction over the location of research activities.
- All employees working in the labs must have current training that is applicable to their exposure. Examples are the following: Lab Safety, PPE, Bloodborne Pathogen, IIPP training.

#### **Support Systems Quality Control:**

1. Confirmation from SH&S or Energy Management and Utility Services that HVAC systems or other ventilation systems for labs are functioning at operational standards.
2. Confirmation from Facility Services that all water supply, power, lighting, emergency equipment, restrooms and breakrooms are ready for use or functioning properly.
3. Confirmation from IITS that all phones, other forms of communications, online access to SDS or appropriate safety resources, and other key sites are accessible.
4. Confirm with SH&S or University Police Department what buildings, at what times, employees can access the labs and support areas.
5. Confirm with Deans and Research PIs which employees are authorized to work in labs.