

PI Phase 2 COVID-19 Research Plan

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Link to submission	https://scout.eee.uci.edu/my-submissions/view-submission/101791

Chemistry Research Group Information

This form has been created to compile your plan to perform research while adhering to the safety health practices during the COVID-19 pandemic. An electronic copy will be generated for review by the Chemistry Department and to share with the Dean. While these guidelines are extensive to maximize safety for all departmental researchers, this document is not exhaustive. More informations can be found on the COVID-19 resource pages for the **County** (<https://mailchi.mp/ochca/healthofficersorder>), the **State** (<https://covid19.ca.gov/industry-guidance/>), the **Office of Research** (<https://news.research.uci.edu/research-continuity/research-ramp-up/points-of-consideration/>) and **EH&S** (<https://www.ehs.uci.edu/PublicHealth/covid-19/>).

This form does not have to be completed at one sitting. Twenty resubmissions are allowed. Please answer the last question correctly when you have completed the form. If you make a revision after this point, please email Kim Edwards (kdmullen@uci.edu).

PI NAME(s)

* required

Joseph W. Ziller

RESEARCH IS VOLUNTARY: In-person research is completely voluntary. Researchers should speak with their advisor and then the department office or graduate advisor if they need accommodations. Please see CDC's People Who Are At Higher Risk webpage (<https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html>)

* required

Members of my laboratory and I understand this and are aware of the actions they need to take.

ESSENTIAL UNDERGRADUATES ONLY: Undergraduates are not permitted in lab unless exceptional circumstances exist.

* required

No undergraduates will be working in my research laboratories during phase 2.

DESCRIPTION OF ESSENTIAL UNDERGRADUATE DUTIES. If you have undergraduate(s) in your laboratory who perform essential duties, please describe those duties and why they are essential.

N/A

SAFETY LEADS: A safety lead is the point of contact for outside interactions and responsible for verifying cleaning tasks are done at the end of each shift. One should be present during each shift. The position can rotate, but it should be clear to surrounding labs and the Facilities who the safety lead is during each shift. Please describe the activities for which these individuals will be responsible.

* required

I am responsible (safety lead) for safety in the X-ray facility. My assistant (Chen Sun) will also oversee users to ensure safety protocols are followed.

- (1). Monitor users to ensure proper safety procedures are followed.
 - (2). Notify users that masks are required and six (6) foot distance is required between users..
 - (3). Post notices in the facility regarding safety procedures, number of users allowed in the facility at one time, required hand washing.
 - (4). Disinfect workstations (mice, keyboards, common surfaces such as chairs, counters, desktops), door handles, instrument handles
-

GROUP COMMUNICATION: In person communication must be kept to an absolute minimum. It should only occur at times when it is necessary for conducting research or for safety reasons with both people wearing face coverings and remaining physically distant (*except for safety reasons and emergencies*). Group meetings must be held remotely. Office space should only be occupied by one individual at a time.

* required

Members of my laboratory and I will comply with these guidelines.

Suggestions: Select any of the following communication methods you will use and/or add any other types you plan to use in the "Other" field.

Use whiteboards to leave messages.

Other: Communication by email and/or text messages, phone call to lab x49175 to schedule experiments and gain entry to the facility

COVID-19 PERSONNEL TRAINING As the PI, the following directions must be given to the members of your research group. Please **check all** selections to indicate this information will be given to your group members.

Please see the following webpages: - CDC's COVID-19 Symptoms (https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fsymptoms-testing%2Findex.html) - EH&S COVID-19 Learning Resources (<https://www.ehs.uci.edu/PublicHealth/covid-19/resources.html>)

* required

Researchers must follow proper sanitization and personal hygiene procedure including frequent hand washing.

Researchers will be directed to prioritize group member safety and health above all else.

Researchers will be directed to conduct symptom self-checks (see CDC website above) each day before work and report symptoms. Researchers should not come to campus if they feel ill and should seek medical advice.

Researchers will be directed to take the UCI training(s) on how to limit the spread of COVID-19 when it becomes available on UCLC.

POSITIVE OR SUSPECTED COVID-19 INFECTION. If a researcher tests positive for COVID-19, feels ill, or has a fever, loses of sense of taste or smell the following steps must be taken. Please **check all** selections to indicate your agreement to the guidelines.

* required

Researcher must not come to campus and should seek medical advice.

Researcher must report symptoms/illness to PI.

PI must report the illness to the department and UCI's HR: <https://hr.uci.edu/disaster-relief/report-known-cases.php> and follow their direction.

Self quarantine of other individuals may be required.

Researchers returning from air travel must quarantine for 14 days.

RESEARCH AGREEMENT TO POLICIES: All researchers need to abide by the School of Physical Sciences safety protocol. Researchers should review and sign the agreement posted <https://ps.uci.edu/node/50134>. Have all of your researchers filled out this form?

* required

yes

Research Space Density & Scheduling

MAXIMUM OCCUPANCY: What is the maximum occupancy for researchers in your lab at any one point in time? How many additional individuals are permitted in your lab for short term purposes (i.e. EHS waste pick up; another group to use instrumentation, pick up chemicals, etc.)

Guidelines: Maximum occupancy = 1 person per 250 square feet of *useable* space.

* required

Three (3) persons. My lab is approximately 1000 sq ft.

PHYSICAL DISTANCING WITHIN LAB (Diagram): Please upload a diagram of the laboratory and indicate where people will work. Lab diagrams can be found here:

<https://www.chem.uci.edu/lab%20research%20during%20pandemic>.

*

Upload attached as: Rowland 513 Stations.pdf

SCHEDULE: Please provide a link where your researchers' schedules can be found online.

Guidelines: Only first names should be visible on these schedules. Priority should be given to researchers close to completing their degree or term of employment.

* required

Joe 8-5 MTWTF, Chen (10AM-Noon MTWTF)

Please select the scheduling scheme(s) your group will follow or use the "Other" field.

* required

Fixed shift teams to limit potential exposure of the entire group.

BUILDING/SPACE ISSUES: Please provide an analysis of adjacent occupied spaces near your laboratory and inside the building in general. *Do you have any concerns you would like addressed?*

* required

The Shane Ardo group labs are across the hall from Rowland 513 (X-ray Facility). Undergraduate tutor rooms (Rowland 517) are next to the X-ray facility. There are no concerns as there is no interaction with either the Ardo lab or the tutor rooms.

Guidelines: Please **check all** selections as an agreement to these guidelines.

* required

Water fountains should not be used.

Only one person at a time should be in an elevator, restroom, kitchen or in narrow hallways (such as the main hallways in FRH and RH).

Avoid using office space, as the air make-up is recirculated.

Suggestions: Please select the suggestions your group will follow or use the "Other" field.

Eating and drinking should be done outside whenever possible.

Coffeemakers, refrigerators and microwaves should only be used after washing hands or sanitizing surfaces.

COMPLIANCE: EH&S and Chemistry personnel will also perform spot checks to insure physical distancing and low research lab density. *If a researcher is found out of compliance lab privileges may be suspended or revoked.* What measures will you take to make sure your group is in compliance?

* required

A sign in sheet will be posted for users to initial indicating they understand and will follow the facility rules. The facility is a low volume lab. Currently, there are only four (4) users in addition to myself and my assistant Chen Sun. Anyone found violating the rules will be notified that lack of compliance will result in their removal from my RUA (Radiation User Authorization) list. Once removed a user will not have access to the facility. The majority of experiments are done and/or supervised by me or Chen Sun so compliance is not expected to be a concern.

Research Specific Safety Protocols

EH&S CHECKLIST: Please review the [EH&S checklist for Phase Two Research Activities <https://www.ehs.uci.edu/PublicHealth/covid-19/Labs%20Returning%20to%20Work.pdf>].

* required

I have reviewed this checklist.

PPE Requirements: Please **check all** selections as an agreement to the guidelines. If you have other PPE requirements your group will use, please enter those in the "Other" field.

Note: Chemistry has purchased ~120 drums of isopropanol (40 have been delivered and placed in your laboratory) and face coverings (fire rated surgical masks, ~1800 on order). We also have 400 cases of nitrile gloves.

For more information, see EH&S Face Covering Guidelines

(<https://www.ehs.uci.edu/PublicHealth/covid-19/Face%20Covering%20Guidance.pdf>)

* required

Sufficient stocks of personal protective equipment (PPE) and other safety supplies exist and I have a plan for scheduled/regular ordering to help ensure consistent availability of these essential supplies.

Face coverings are required in all parts of the building. The exceptions are when working with pyrophoric or water reactive chemicals, when eating/drinking alone in a room without people (such as an unshared office).

Researchers must understand a face covering prevents infected individuals from dispersing the virus to others. (The wearing of a face covering is more about keeping your own germs to yourself.)

Face coverings should be flame resistant (100% cotton, surgical, or FR) and not have any dangling parts that might pose a safety hazard (no bandanas, no gators).

In unavoidable & absolutely necessary exceptions to the 6 feet distancing rule, a face shield must be worn in addition to the face mask. (If you need a face shield, please contact Greg Weiss).

All other typical PPE (gloves, eyewear, and lab coats) must still be used in appropriate areas of the laboratory.

Gloves and eyewear should be used when opening incoming packages.

SANITIZING: All surfaces (door knobs, keyboards, instruments, fume sashes and baffles, etc) should be disinfected before and after use. Please details specific to your lab for sanitizing shared equipment and spaces.

70-75% Isopropanol should be used to wipe down most surfaces. (Use spray bottle to apply and then allow the alcohol to sit for at least 30 seconds before wiping away.) Other sanitizers such as quaternary ammonium compounds (benzalkonium chloride, benzethonium chloride, tetraethylammonium bromide), bleach (1/3 cup household bleach per gallon), 3% hydrogen peroxide or other appropriate disinfectants may be used if the alcohols are not appropriate or unavailable.

More information can be found at: -

<https://www.ehs.uci.edu/PublicHealth/covid-19/Lab%20Cleaning%20Guidance.pdf> - <https://www.ehs.uci.edu/PublicHealth/covid-19/Chemical%20Disinfectants%20Against%20SARS-CoV-2.pdf>

* required

70% isopropyl alcohol spray is available and will be used to disinfect surfaces. Spray bottles will be placed around the lab and clearly marked. Surfaces, mice, keyboards door handles, instrument handles will be cleaned upon arrival and several times during the day depending on facility use There is antibacterial soap at the sink.

CONFINED AREAS: Please list areas which can only accommodate one person at a time and describe any special protocols associated with these areas.

* required

N/A

INSTRUMENT USE, CLEANING, & REPAIR PLANS *within your lab*: Please describe these protocols. **Suggestion:** Consider using plastic wrap or keyboard covers that can easily be wiped down with sanitizer after use.

* required

The X-ray instruments are over 10 feet apart so interaction is limited. Microscope and computer workstations are six feet apart. Notices will be posted to remain six feet apart and to wear masks while in the facility. There are only four (4) authorized users in addition to myself and my assistant Sunny Chen. Scheduling is easy due to the limited number of users. All instrument repair is done by me. Keyboards, mice, tabletops, etc will be cleaned with alcohol before/after use.

INSTRUMENT USE, CLEANING, & REPAIR PLANS *between labs*: Please describe protocols if an instrument belonging to you or someone else is used by researchers of different groups. **Suggestion:** Consider using plastic wrap or keyboard covers that can easily be wiped down with sanitizer after use.

* required

N/A

FACILITIES Protocols: Please describe how your research lab will interface with each Facility used. The protocols for each Facility can be found here:

<https://www.chem.uci.edu/lab%20research%20during%20pandemic>. (Facility directors have been asked to fill out this same form and their plan will be reposted.).

* required

Facemasks are required in the X-ray Facility.

Only four (4) users maximum are permitted in the facility.

Users are required to maintain six (6) feet distance at all times.

PS STORES /COPY CENTER Protocols: The following statements reflect PS Stores operational

procedures during Phase 2. Please check **all** selections and use the other box if necessary to indicate how your research lab will interface with Stores.

* required

Face coverings are always required in Stores.

Stores staff will limit occupancy levels at the entrance. Maintain a 6 foot separation in front of the entrance.

Packages will be passed through the door to reduce contact between staff and researchers.

Researchers should maintain 6 foot separation at all times in PS Stores

Only 1 computer terminal will be available and distance markings will be indicated with blue tape on the floor. The terminal will be disinfected throughout the day.

Only 3 individuals will be allowed in the solvent or supply room at a time. Only 1 person per aisle.

Designate one person on each shift to interact with PS Stores (unless the item being picked up is too large).

Only 3 individuals are allowed in the copy center at any one time. Only the front, back and side photocopiers will be available to ensure physical distancing.

HAZARDOUS ACTIVITIES: Please describe any hazardous activities requiring procedure modifications due to the current circumstances. Make a special note of any processes requiring a second person present. **Working alone is prohibited when using pyrophorics, acutely toxic gases, and HF.**

Please review EH&S Working Alone Guide:

<https://www.ehs.uci.edu/programs/labres/Working%20Alone%20Reference%20Guide.pdf>

Suggestion: Consider using safe operating cards near unattended reactions, contact the GST to obtain these.

* required

N/A

RAMP DOWN PLANS: Please describe how your group will ensure all equipment and instrument are left in a safe state if research is unexpectedly ramped down.

Please see the following webpages (<https://news.research.uci.edu/vcr/research-ramp-down-and-curtailment/>) (<https://news.research.uci.edu/research-continuity/page/7/>)

* required

Instruments are placed in standby mode, in-lab user access to instruments is restricted by passwords.

Remote access to facility data processing computers is available.

OTHER. Please provide any other pertinent details not mentioned in other sections.

The X-ray facility has a limited number of hands-on users (currently four (4) in addition to my assistant Chen Sun and myself). User traffic is minimal. A typical experiment requires a minimum of 24 hours and often runs for multiple days. During the experiment it is not necessary for users to be present in the facility. Users can monitor and access data remotely so may not be required to return to the facility upon completion of the experiment. Scheduling of experiments is done by contacting the lab by email, phone or text messaging.

Upon approval of your plan by the Dean's Office, a PDF of your entries will be sent to you. This document should be electronically signed by your lab members and then stored on a shared group drive / website and in the lab safety binder.

CERTIFICATION FOR REVIEW:

* required

I have completed all parts of this form and it is ready to be reviewed.

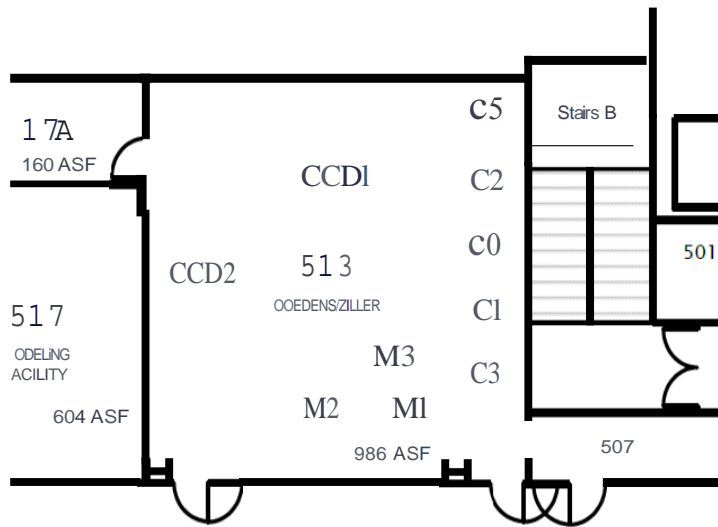
Attachment

Question

* **PHYSICAL DISTANCING WITHIN LAB (Diagram)**: Please upload a diagram of the laboratory and indicate where people will work. Lab diagrams can be found here: <https://www.chem.uci.edu/lab%20research%20during%20pandemic>.

File

Rowland 513 Stations.pdf



"C" Designates Computer workstations
 "M" Designates Microscope workstations
 "CCD" Designates Instrument workstations