

Plan for In-person Research – Ginger Lab

Locations covered (list building and room numbers): CHB 221, CHB 223, CHB 227, CHB G014, BAG 019, MoIES G44

COVID-19 Supervisor

Name: David Ginger

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A member of the group that can assume the COVID-19 Supervisor role in the PI's absence:

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Approved Personnel

David S Ginger – Principal Investigator
Rajiv Giridharagopal – Research Scientist
Connor Bischak – Postdoctoral Researcher
Jian Wang – Postdoctoral Researcher
Xudong Wang – Postdoctoral Researcher
Junxi Yu - Graduate Student Researcher
Katie Guye – Graduate Student Researcher
Erin Jedlicka – Graduate Student Researcher
Sarthak Jariwala – Graduate Student Researcher
Jiajie Guo – Graduate Student Researcher
Shaun Gallagher – Graduate Student Researcher
Justin Pothoof – Graduate Student Researcher
Ramsess Quezada – Graduate Student Researcher
Muammer Yaman – Graduate Student Researcher
Margherita Taddei – Graduate Student Researcher
Maddie Breshears – Graduate Student Researcher
Yangwei Shi – Graduate Student Researcher
Farhad Akrami – Graduate Student Researcher

General Chemistry Department Guidelines

What work can be done on-site?

- On-site work is restricted to work that **requires** being on-site to accomplish. In the Department of Chemistry, this includes laboratory research that must be performed in on-site laboratories for both safety and access to required equipment.
- All work that it is possible to accomplish remotely must remain off-site.
- **Plan ahead:** Know exactly what you will be doing before you arrive on-site so you can minimize time in the buildings.
- Activity should be scheduled so that researchers spend the minimum amount of time on-site required to accomplish the work. For example, this means that in most cases offices should be limited in use to a

location for storing personal items that should not be in a laboratory. Offices should not be used for anything that takes more than a few minutes, and only when required to support other approved on-site activity or collect items needed for off-site work.

Who can work on-site?

- Only those faculty, graduate students, postdocs and staff that have been approved by the department to perform work that requires being on-site.
- At this time undergraduate researchers are not allowed to participate in on-site work.

What safety standards are required to be maintained during research?

- Social distancing of at least 6 feet
- Frequent laboratory decontamination procedures
- Personal safety with appropriate personal protective equipment and frequent hand-washing

What types of in-person research that are allowed, if they can meet the safety standards noted above?

- Research that will help deal with the pandemic
- Public health research
- Research that will help the nation recover after the pandemic eases
- Research that is essential to meet thesis requirements for a final defense in the Spring or Summer Quarters, or requirements of a new position that has already been accepted
- Long-term experiments, or maintaining vital equipment, cell lines, animals, and other time-sensitive research items, for which a pause would cause undue harm and/or cost to facilities that support the work noted in the above bullets
- All areas of research that are required to meet an upcoming deadline

Who can be required to work on-site during this time?

- NO ONE
- Graduate students and postdocs may choose not to participate in on-site research.
- No explanation regarding the desire to avoid on-site work is necessary.
- Research advisors and supervisors must not coerce or pressure any trainees to work on-site.

If I have suggestions for improvements, concerns about a protocol, or concerns that the safety protocols are not being followed, what should I do?

- You should report your concerns to your COVID supervisor. For many this will be the faculty research advisor.
- If you are not comfortable reporting it to your immediate supervisor, you should report it to:
 - Department Administrator Paul Miller paulmil@uw.edu (206) 543-1612
 - Department Chair D. Michael Heinekey chmchair@uw.edu (206) 543-1613
 - Associate Professor Forrest Michael, Safety Committee Chair michael@chem.washington.edu (206) 543-6519

Illness/Attestation

- **Under no circumstances** should anyone enter any Chemistry Department buildings while sick.
- **Before** coming to work, everyone must complete a daily attestation of wellness in Workday, and all supervisors must check daily to see that the attestation has been completed.
- If you feel unwell or develop symptoms after arriving at the Department, you must go home **immediately** and stay there until you feel well.

- If you are diagnosed with COVID-19, inform **EH&S Employee Health Center at 206-685-1026** or covidehc@uw.edu immediately.

Social and Physical Distance

- Maintain appropriate social distancing (6 feet or greater) at all times in all spaces in the department. Masks are not a substitute for maintaining this distance.

Face Masks and Gloves

- All standard laboratory PPE requirements still apply and always take precedent.
- Gloves may be used in specific lab spaces, but the general department policy prohibiting the use of gloves outside of lab spaces (i.e. in corridors and stairwells) remains in place.
- Face masks are required at all times in common areas, hallways, and shared departmental facilities.
- Face coverings (masks) are considered part of your personal attire. They are not considered laboratory PPE. Think of face masks in the same category as long pants and closed-toe shoes: they are required personal attire that should not interfere with any required PPE or create any additional safety hazards.
- If you need to adjust your face mask, take off your gloves, wash your hands, and leave the room if others are nearby.
- Follow CDC guidelines and UW EH&S guidance on face mask use.
(<https://www.ehs.washington.edu/system/files/resources/facemask-guidance-COVID-19.pdf>)
- Be sure your face mask fits securely and comfortably before coming in to work.
- Just like any article of clothing or part of your personal attire, if a face mask becomes contaminated by laboratory chemicals it should be disposed of as hazardous waste.
- The University strongly discourages the use of surgical/medical masks so as to reserve them for critical healthcare use.
- EH&S also discourages the use of cloth masks for work with flammables and in biosafety level 2 or higher spaces.
- Masks will be available to all Chemistry department staff and researchers through the chemistry stockroom, but you are also welcome to provide your own.

Decontamination of hands, surfaces and work areas

- Washing your hands with soap and water for at least 20 seconds is the best method to minimize viral spread.
- Hand sanitizers, 70% EtOH, or iPrOH can be used when soap and water is not an option.
- All researchers will use sanitizer or wash their hands with soap and water upon arrival in the building and immediately prior to departure.
- All researchers will wash their hands with soap and water as often as it is practical while on-site, and always after contact with others.
- Surfaces and shared equipment/tools should be cleaned with 70% EtOH or iPrOH before and after each individual user. To facilitate cleaning, surfaces should be kept free of clutter.
- When you plan your schedule, you must plan for an appropriate amount of time to allow decontamination of the space before and after use. This will vary depending on the nature of the workspace, but schedules that do not provide time for decontamination between uses are not allowed.
- It is recommended that some type of visible reminder to decontaminate each space be posted clearly.

Hallways

- Most hallways are 6 feet wide or wider so you should be able to maintain 6 ft of separation at all times.
- For narrow hallways, single direction use should be observed. If there is someone coming in the opposite direction, wait for the other person to pass.

- Hallways should be used for transit between spaces only. Do not congregate or stop to talk with others, even when maintaining 6 ft distance.

Elevators and Stairwells

- All elevators are designated as single occupancy only. Signs will be posted.
- Except in emergencies, stairwells are designated for one direction only (up or down).
- All stairwells in Bagley Hall and Chemistry Building are unidirectional.
- Signs are posted on every floor and on every stairwell door labeling directionality.

Bathrooms:

- All bathrooms are designated as single occupancy only.

Doors:

- Doors to labs and offices should never be propped open.
- Building air balance is important to the proper functioning of chemical hoods and proper air exchange. This would be affected by propping open doors. Furthermore, laboratories are not generally spaces that are safe to allow uncontrolled entry.
- Laboratory and office doors should remain locked for safety and to reduce unintended occupancy.

Hand sanitizers and cleaning solutions are available throughout the Department of Chemistry buildings.

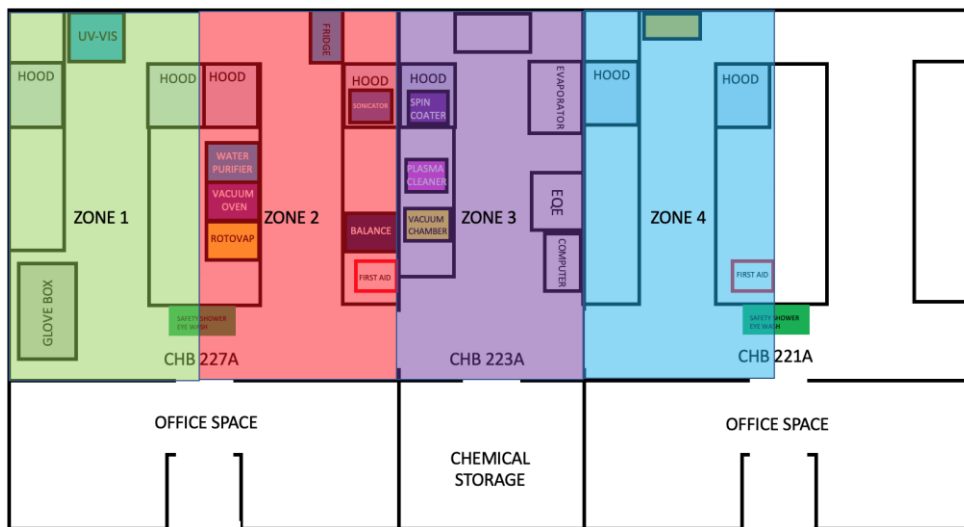
These are intended for on-site use only. They should not be taken off-site.

Social and Physical Distancing

1. Attach lab floor plan. Label all the room(s)/work area(s) and for each room/work area indicate the maximum occupancy:

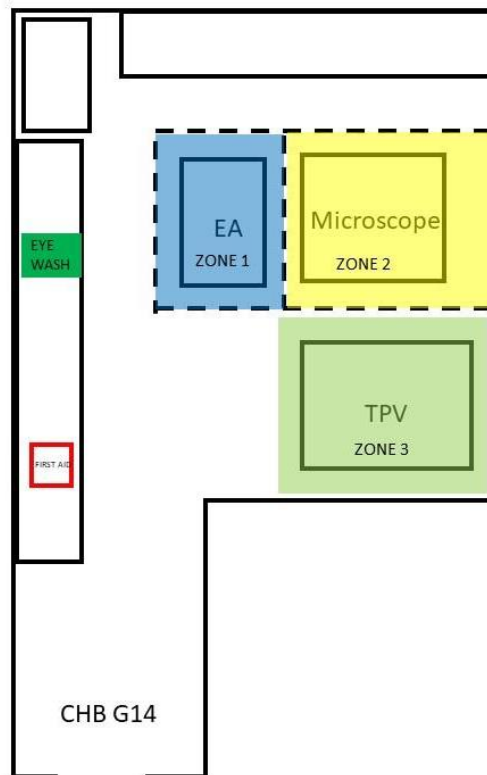
- **CHB 223-227 (Labs and Offices)**

- The lab is divided into four zones and office spaces
- A total of 8 people will be allowed to work in this space at a time under the conditions:
 - Social distancing measures **must** be kept
 - Coordinating/reserving instruments must be done on Lab Agenda
 - No more than three people should occupy one zone at a time
 - The total number of persons include those in office spaces



- **CHB G14**

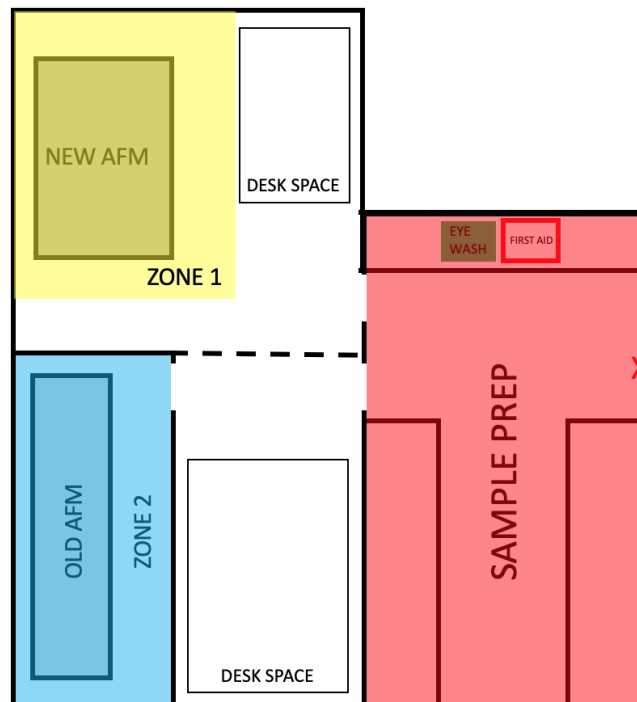
- Total of 3 zones, maximum of 1 person per zone. Total of three persons in the lab space at a time.



- **CHB 227 Office/CHB221 Office/BAG19 Office**

- Office work is discouraged at this time. However exceptions will be made for:
 - Waiting for the next experimental step
 - Obligations that require being on the computer, such as attending a Zoom meeting, as long as it is in between experimental work
- Researchers are encouraged to use time between experimental steps to prepare materials and supplies for future experiments, however when office work is required the following precautions must be taken:

- Maximum 2 persons per office space
- Minimum of 6 ft apart
- Face mask required
- Disinfecting of all surfaces after use
- Eating is allowed in offices only if one person is occupying the space. Masks may be taken off for only the duration of the meal and the meal should be consumed within 20 to 30 min.
 - It is recommended that people eat outside to minimize exposure
- **BAG 19a**
 - Only one person is allowed to occupy this area at a time.
- **OECT Office Space**
 - Only one person is allowed to occupy this area at a time.
- **MoIES G44**
 - Total of 3 zones: Zone 1: New AFM, Zone 2: **OECT set up**, and Zone 3: Sample Prep.
 - Two persons per zone, social distance must be maintained.
 - Desk space may be utilized if social distancing can be maintained and active research is being done in one of the zones.



2. Describe a lab usage scheduling plan that will minimize the number of people in the lab at any given time and how it will be implemented:
 - All lab spaces have been designated to only a limited number of people. These limits will be posted at the entrance to the lab space.
 - Everyone must schedule lab equipment or space in **labagenda**.
 - Ramsess and Erin will check the lab scheduler to ensure everyone is abiding by the procedures.
 - Everyone will use Slack to communicate with fellow lab members the **day before** coming in to confirm no experiments will be interfered with.

- Everyone will use Slack to communicate with those on campus to make sure everyone is being safe and lab spaces are free to use.
 - Everyone is to schedule more time than they deem necessary to ensure they have sufficient time to finish all their experiments, deal with unforeseeable delays, and to sanitize surfaces.
 - Everyone must plan out all of their experiments and coordinate with fellow lab members working that day to ensure social distancing.
 - No one is to enter a space they have not reserved unless it is absolutely necessary (sample storage, safety). In which case, that person should check labagenda and contact anyone who is in the lab to coordinate safe practices.
3. Describe specific rules and policies that will be implemented in your group to ensure social and physical distancing measures:
- Before coming to work, researchers must complete a daily attestation of wellness in Workday.
 - Lab mates will coordinate with fellow lab mates to make sure social distancing can be kept.
 - Lab mates will help one another to obtain samples from shared spaces and personal drawers when needed, by communicating via Slack, or other electronic communication.
 - Collaborations should be prioritized when possible (i.e. if possible, one researcher can make multiple solutions in the glove box to minimize the number of people using it).
 - Everyone will minimize their time on campus.
4. Describe the tasks and activities that can be safely performed in the lab:
- All lab functions not requiring more than one person are allowed in lab.
 - Use with concentrated acids and bases should be avoided, except in in cases where a buddy system can be established.
 - Work with PHS chemicals can be conducted as long as the SOP does not indicate that multiple people are not needed to work with the chemical. Currently, there are no chemicals in the laboratory that require the buddy-system to work with.
 - Equipment training must be done over video calls.
5. Describe the changes to the workspace(s) that have been made to ensure social and physical distancing and hygiene requirements:
- Work spaces have been divided into zones and occupancy rules have been changed for all lab spaces. (please view above)
 - Commercial cleaners and hand sanitizer will be kept in all office spaces.
 - All work spaces will have signs indicating how many people can occupy a space.
 - Signs will be posted reminding people to fill out the attestation, wear a mask, wash hands, sanitize surfaces, maintain social distancing.
6. Describe how policies and measures have been communicated to group members (signage posted, e-mails, group meetings, etc):
- All group members will go through a safety training and protocol via zoom prior to being allowed to go back to on campus work.
 - Lab spaces will have signs reminding researchers to wear a mask, wash hands, sanitize surfaces, maintain social distancing.

7. Describe how new members of your group will be trained. Please specify any training that can and should be done remotely, such as training for specific instruments, equipment, or software.

- Whenever possible, the training in common experimental techniques will be performed through video recording and live video conferences.
 - Each instrument will have a detailed training process made by senior researchers in the lab.
 - Each instrument will have an updated SOP, supplemented by a video when it is necessary.
 - If videos are not available online, senior students will record instructional videos for incoming students. These will be recorded by the senior student alone, through desk-mounted video recording tools (such as a smart phone and tripod) or a mounted camera such as a GoPro. These videos will be made available to all group members and stored in the group google drive. G:\Shared drives\Ginger Lab\Instrument Trainings
 - Senior lab researchers will be put in charge of specific SOPs and videos for different instruments.
 - A remote training utilizing a GoPro and zoom will also be available when needed to show the nuances of certain procedures when needed.
- Even after online training sessions, a more specific in-person training will be necessary at times. These training sessions will be performed observing the following COVID guidelines provided by the university:
 - All in-person activities including training are completely voluntary, if a senior researcher is not comfortable with in person trainings, they may delegate the training to another senior student.
 - All personnel must maintain 6 feet away other people at all times. If training cannot occur while maintaining 6 foot distance, that training will not be permitted.
 - A GoPro and iPad will be used to aid the instruction with live streaming.
 - All standard PPE, including protective face-masks must be worn.
- Before performing new experiments independently, the new researcher will discuss a detailed plan and risk assessment with the senior researcher. The experiment should be scheduled during a time where the senior researcher will be able to immediately respond to any questions.
- The first time performing new techniques, the new student will wear a GoPro to allow a senior lab member to assess their mastery and ensure best practices are being followed.
- New researchers must schedule laboratory work and experiments at a time when a second researcher is present on campus to respond emergencies.
- In case of emergency, the second researcher will approach wearing standard PPE equipment, including a face mask.
- New researchers will not perform highly hazardous experiments that would normally necessitate the presence of a second research in the immediate vicinity. The hazardous part of such experiments will be performed by a senior researcher instead.
- Data work up and interpretation of experimental results and troubleshooting will be performed online with the help of senior students and/or the P.I.
- No new undergraduate students will be permitted to conduct in-person research. New undergraduate researchers may participate in remote projects that do not require in-person laboratory work.

Responding to Illness

1. Describe how the University of Washington requirements for symptom assessment and attestation will be fulfilled:

Users should not come to campus or work in the laboratory, if they are experiencing any of the following symptoms.

- A new fever (100.4 F or higher) or a sense of having a fever
- A new cough that you cannot attribute to another health condition
- New shortness of breath that you cannot attribute to another health condition
- A new sore throat that you cannot attribute to another health condition
- New muscle aches that you cannot attribute to another health condition or that may have been caused by a specific activity, such as physical exercise
- New respiratory symptoms, such as sore throat, runny nose/nasal congestion or sneezing, that you cannot attribute to another health condition
- New chills or repeated shaking with chills that you cannot attribute to another health condition
- New loss of taste or smell that you cannot attribute to another health condition

Everyone will fill out the health attestation prior to coming to work on campus. Everyone will fill out the online spread sheet indicating they have filled out the attestation prior to coming to campus, which will be monitored by the lab safety officer daily to make sure lab members are meeting UW requirements.

2. Describe the plan in case someone in the group develops COVID-19 symptoms:

If at work, they must immediately go home and contact their healthcare provider. If at home, they are instructed to contact their health provider. They are instructed to consult <https://www.washington.edu/coronavirus/faq/> for the course of action recommended by the University of Washington in the case of the suspected case of COVID-19.

In case a group member tests positive for COVID-19 or their healthcare provide suspects a case of COVID-19, they are instructed to immediately contact **EH&S Employee Health Center at 206-685-1026 or emphlth@uw.edu**.

University personnel are required to immediately report suspected or confirmed cases of COVID-19 to the University Employee Health Center at 206-685-1026 or emphlth@uw.edu.

Upon notification of a suspected/confirmed case in the Ginger Lab, safety officers will work with the University Employee Health Center to do the following:

Assist with contact tracing and work with EH&S to conduct Enhanced Cleaning and Disinfecting Protocols as outline in <https://www.ehs.washington.edu/system/files/resources/cleaning-disinfection-protocols-covid-19.pdf> if person worked in Ginger Lab spaces 48 hours prior to developing symptoms and reported suspected/positive COVID-19 within 7 days of last visit to campus.

Cleaning and Disinfecting Your Workplace

1. Describe cleaning and disinfection protocols for high-touch surfaces, shared equipment, and common areas in the lab, including who is responsible:

- Everyone who decides to work on campus is agreeing to cleaning and disinfecting spaces they occupy.
- Everyone will disinfect work spaces they use.

- Doors will be sprayed with disinfectant when a person leaves the office space.
- High touch surfaces will be wiped down.

Encouraging Good Hygiene

1. Describe measures in your group that will promote and enable uniformly good hygiene practices:
 - Hand sanitizer will be provided in all work areas.
 - Signs will encourage/remind lab members to wash hands prior to and after leaving the lab area.
2. Describe the lab policy for wearing a mask and other protective equipment:
 - Masks are mandatory when entering and leaving the building. Everyone should also be wearing them when walking in public spaces.
 - Masks are required when working in lab spaces where safety goggles are not required.
 - Masks are not required in labs where safety goggles are also required (CHB 221,223,227), however they are **highly** recommended if they do not inhibit the researcher's ability to work safely.
 - Masks should not be used when working with flammable solvents.
 - If a mask is contaminated in lab, it should be disposed of in hazardous waste.
 - Everyone will receive their own personal box of gloves to reduce shared touching spaces. Multiple can be provided for every person if needed.

General

1. Provide a plan for training group members in COVID-19-related policies and procedures described in this document, including how the training will be documented:
 - COVID-19 trainings will be done over video conference.
 - Lab Safety officer will record attendance.
 - Lab members sign the "COVID-19 Policy Agreement Form", this document will be kept with laboratory safety records and the Laboratory Safety Officer will provide electronic copies to the Chemistry Department.
2. Describe the plan for visitors. The plan should address symptom monitoring, attestation, and visitor log maintenance for all the visitors. (Visitors are defined as those who do not normally use these spaces, including both UW and non-UW personnel):

At the entrance to the center, maintenance workers and contractors must sign a visitor log to attest that they have no symptoms or know exposure to COVID-19, provide contact information, and the date/time of that they will be in the Photonics Research Center.

No other visitors or tours are permitted in the Ginger Lab at this time.
3. Describe how group members will be informed of COVID-19-related policies for shared facilities and common spaces in the department:
 - User centers will disseminate information regarding requirements for using facilities through email to all approved users.
 - Department policies for common areas were included at the beginning of this document.
4. Describe any other COVID-19 related policies implemented in your group:

- Everyone is to bring extra face covers in the event that one of theirs gets contaminated and must be disposed of in lab.

Instrument Specific Remote Training Plans

Senior lab researchers listed are tasked to make sure the instrument SOP and video are up to date, and that the training is safe and complete for new researchers.

Instrument	Researcher
AFM (old/new)	Raj + Justin
AFM 288nm laser	Raj
CHB 221A Schlenk Line	Erin
CHB 227A Glove Box	Sarthak
CHB 227A Rotovap	--
CHB 227A Sonicator	Katie
CHB 227A UV-Vis	Katie
CHB 227A Vacuum Oven	Connor
CHB 223A EQE	Demi
CHB 223A PL	Erin
CHB 223A Spincoater	Justin
CHB 223A Evaporator	Ramsess
CHB 223A Vacuum Chamber	Jess
CHB 223A Plasma Cleaner	Maddie
CHB G014 Cryostat	Demi
CHB G014 EA Bench	--
	Shaun +
CHB G014 Inverted Microscope	Maummer + Katie + Sarthak
BAG 019 PIA Bench	Demi
BAG OECT Room	Jiajie
PiFM	Connor + Raj
Cypher	Raj
	Shaun +
Hyperspectral	Maummer
PRC Potentiostat	Ramsess