Duke Chemistry Shared Instrument Facility – Reopening Plan (Revision 1)

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Scope

This plan addresses operational procedures for the Chemistry Department Shared Instrument Facility (SIF) during the COVID-19 outbreak. These procedures are to be followed upon reopening of the lab, and will continue to be followed until such time that Duke has lifted the need for added safety precautions related to COVID-19.

Lab Access and Maximum Room Occupancy

Laboratory doors will be unlocked while the Facility Director is in the building, but doors will remain locked during all other times. Only trained students will be allowed access to the shared instrumentation, and key access may be requested for off-hours usage.

The maximum occupancy of the shared instrumentation rooms will be as follows:

- No more than one person in 2325 (Director's office)
- No more than one person in 2324 (wet lab)
- No more than five people in 2323 (main lab), with proper social distancing
- No more than four people in 2117 (spectroscopy and GPC lab), with proper social distancing
- No more than one person in 1202 (lyophilizer lab)

Added Safety Procedures

Duke has already issued general guidance for returning to the workplace (https://coronavirus.duke.edu/wp-content/uploads/2020/05/Return-to-the-Workplace.pdf), as well as guidance for the phased return of research activities (https://medschool.duke.edu/research/reopening-research-laboratories). These policies should be adhered to, especially the use of face coverings, and regular washing of hands with soap and water. Additional procedures specific to the SIF are detailed below.

Laboratory Traffic

One-way flow of traffic will be controlled as follows:

- FFSC 2323: use the door on the East side of the lab (nearest the main entrance to FFSC) as the "Entrance", and the door on the West side of the lab (nearest the Warren lab) as the "Exit".
- FFSC 2117: use the door nearest the main corridor as the "Entrance", and the door nearest the Franz Lab as the "Exit".

PPE and Sanitary Practices

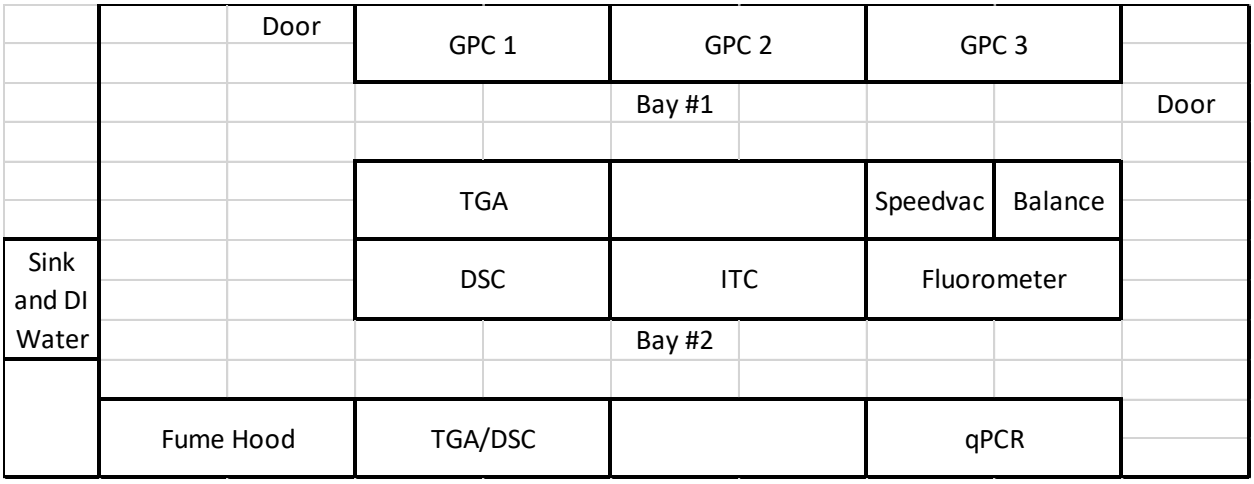
Before entering lab, users should use hand sanitizer from one of the community dispensers in FFSC. In addition to using proper PPE, users are required to wear disposable gloves at all times while inside a shared lab, including at the instrument computers. Upon completing their lab work, users may use a 70% alcohol solution (or equivalent cleaning solution) to disinfect the surfaces of the lab stations where they worked, including the computer keyboard and mouse. Once the work areas have been disinfected, gloves should be disposed of in a trash can near the "Exit" door. After removing gloves, users may use

the "Exit" door, and are encouraged to again visit one of the community hand sanitizer stations before returning to their lab. The Director will also disinfect the common work areas throughout the day.

Calendar Reservations and Social Distancing

Instrument usage will continue to be managed through the Outlook calendar systems, but all reservations will be monitored by the Director to ensure maximum capacity is not exceeded, and that proper social distancing is followed. In general, users are encouraged to check the instrument calendars for potential reservation overlap, and communicate with each other (and the Director) to resolve potential challenges with being able to maintain proper social distancing. The following instrument usage rules will be implemented:

- No more than <u>one</u> person at a time at each instrument.
- No back-to-back reservations should be scheduled on a given instrument; users should space reservations by at least <u>5 minutes</u>.
- Room 2323:
    - Users may schedule reservations independently for the Agilent LCMS-Trap, Bruker MALDI, Agilent LCMS-TOF, Agilent LCMS-QQQ, Agilent LCMS-SingleQ (Wang lab), and Labconco lyophilizer. These instruments are among the most frequently used, and are sufficiently spaced from all other heavily used instruments.
    - Users of the Shimadzu GCMS must request reservation times from the Facility Director to ensure users are properly distanced from the MALDI. The Director will block out the MALDI calendar to ensure no overlap with the beginning/end of the GCMS reservation.
    - Users of the Thermo Orbitrap must request reservation times from the Facility Director to ensure users are properly distanced from the LCMS-QQQ and LCMS-SingleQ (Wang Lab). The Director will block out the LCMS-QQQ and LCMS-SingleQ calendars to ensure no overlap with the beginning or end of the Orbitrap reservation.
- Room 2117:
    - The room will be divided into 2 bays (see Figure below), and no more than 2 people will be allowed to work on a bay at a time.



- Researchers who are working on the same bay must be working on opposite ends of the bay; researchers may not be simultaneously working on instruments such that the researchers are standing side-by-side, or back-to-back.
- Users will continue to use individual instrument calendars for making reservations, but must also use a room calendar to ensure maximum occupancy of the room does not exceed 4 people, and that no 2 researchers are standing side-by-side or back-to-back.
- To maximize instrument use, users may stagger beginning/end times of reservations such that two nearby instruments are not actively being used by two researchers at the same time. Researchers should consult the room calendar and communicate with each other to avoid close contact in these cases.

Communication

The Director will continue to communicate with students, faculty, and staff using email and Microsoft Teams. File sharing will continue through the use of Box and email, and virtual meetings can be held using Zoom. In addition, the Director has been given remote desktop access to most instruments using ScreenConnect, which allows for remote instrument control, data analysis, and screen chats with students for troubleshooting.

Training for New Users

Hands-on training for prospective new users will resume using the following additional safety procedures:

- All training sessions will be one-on-one with the Facility Director; no group sessions.
- The Facility Director and the trainee will remain socially distanced for as much of the training session as is realistically possible. This will be largely facilitated by the use of remote screen sharing of the instrument PC.
- The Facility Director will have only brief moments of nearby interaction with the trainee to explain sample preparation, sample loading, and other, similar operational procedures.
- All other lab procedures related to masking, gloves, hand sanitizer, and disinfectant will remain in effect.

Researchers who remain uncomfortable with the potential for nearby interactions with Facility staff may continue to either submit samples to the Director for analysis, or rely on current trained users in their labs to analyze samples for them.

Revision History

Revision 1 - July26, 2020: Maximum occupancy of room 2323 increased from 4 to 5. Maximum occupancy of room 2117 increased from 2 to 4. Procedures for room 2117 adjusted to allow 2 researchers to a bay so long as researchers are not side-by-side or back-to-back, and a global room calendar will be implemented for the room. Training of new users by the Facility Director will resume using appropriate safety guidelines.

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