

## Protocols during COVID-19 Phase II in the Analytical NMR Facility

**Note:** General protocols for all Shared Equipment Facilities operated by the Dept. of Chemistry & Biochemistry, including the Analytical NMR Facility are provided on Page 4 of this document.

### Analytical NMR Facility-Specific Protocols for Phase II Research (updated Aug. 25, 2020):

1. All solution-NMR instruments (600, 500-solution, AM400, Chem400(auto) and NMR400) remain open to **TRAINED USERS authorized by campus for Phase II Research**. All users must reserve instrument time, including Chem400, using the FACES scheduling system prior to entering the NMR rooms. No walk-in experiments are allowed during Phase II research. User entry in the lab is strictly limited to the reservation time. All users use key card to enter NMR rooms and must use log in/out computer to start/finish NMR experiments. Users for solid-state NMR need to contact Dr. Fu Chen for arrangements.
2. One instrument can only be used by one user at the same time. Whenever users of different instruments occupy the same lab (Room B0128: 600, AM400 and 500–solids; Room B0124: 500-solution; Room B0117: NMR400, Chem400(auto) and workstations), users must only access the reserved instrument and must maintain a 6-foot distance from other users at all times. Note: Rooms B0128 and B0124 share the same entry door and users using 600 or AM400 cannot enter the room for 500-solution and vice versa.
3. Data processing is prohibited in the NMR rooms, except for the data transfer for Chem400(auto) through workstations. Academic users can download Topspin process software free from Bruker website: <https://www.bruker.com/service/support-upgrades/software-downloads/nmr/free-topspin-processing/nmr-topspin-license-for-academia.html>.
4. All users must use their own solution NMR tubes and prepare samples in their own labs, with the exceptions: (i) users running titration experiments can bring pipettes; (ii) users trained to run variable temperature (VT) experiments; (iii) users who need to borrow solid-state NMR rotors.
5. Samples from external users and non-trained users will be collected by appointments and run by staff.
6. **Wednesdays (8am - 2pm, every week)** will be liquid N2 refilling time for all NMR instruments. No reservations will be accepted and no NMR experiments can run during cryogen filling. Filling times for Liquid Helium will be announced.
7. Most users have been trained to use several NMR instruments (4 instruments maximum). In Phase II, to reduce the traffic in NMR rooms and allocate users to different instruments, one user will have permissions to get access to three instruments maximum (1<sup>st</sup> frequently, 2<sup>nd</sup> frequently and 3<sup>rd</sup> frequently used instruments indicated by themselves). Generally, three instruments will meet most experimental requirements for users. If users would like to use the 4<sup>th</sup> instruments, please discuss with the director and get approved. If possible, several

users in the same research group are encouraged to have one user to run all their samples in 1<sup>st</sup> week, another user in 2<sup>nd</sup> week, consequently; but this rule is not restricted. We will evaluate if these changes will work efficiently during Phase II and make any changes if necessary. Any comments and suggestions are welcome.

8. For longer experiments, users are encouraged to leave the NMR lab after sample loading and data collection has begun. Users must return before the reservation period ends to remove samples and sanitize the work area.
9. For overnight experiments, samples must be removed and the work area sanitized first thing in the next morning during the time reserved for this purpose.
10. All users must wear face masks and new gloves before entering NMR labs. The gloves needed to be worn all the time while running experiments.
11. The desk surface, the keyboard and the mouse needed to be sanitized using alcohol wipes before leaving. **IMPORTANT NOTE:** The spinners **cannot** be cleaned by alcohol wipes and can only be cleaned by Kimwipes.
12. If urgent circumstances require a user to abruptly depart from the NMR facility without completing their experiment or sanitations, the user must immediately notify Dr. Chen and request assistance in stopping the experiment and performing the necessary sanitations.
13. If a User plans measurements on Class-2 hazardous materials (pyrophoric materials, acutely toxic materials), the user must inform the facility director or manager in advance, and will be required to provide the Standard Operating Procedure for handling the materials. The rule applies to all stages of NMR experiments.
14. Training of New Users will resume in Phase II. Please refer to the document “New User Training at the Analytical NMR Facility under Phase II Research” for detailed information.
15. All users are encouraged to communicate with facility director or manager by email or telephone. On-line meetings can be scheduled – except for during the Wednesday liquid-nitrogen filling times (10 am – 2 PM)

**Contacts: No Walk-Ins, No Face to Face Meetings, Remote Communication Only**

- **Dr. Fu Chen** – Director, Analytical NMR Facility

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- Work control (Emergency) Phone: 301-405-2222

- University police: Phone: 301-405-3333

## **The Shared Facilities in the Department of Chemistry & Biochemistry will move into Phase II**

(limited occupancy) starting on Monday (Aug. 24, 2020). Detailed Protocols have been developed for each Facility and will be communicated to the Users by the Facility Managers and posted on the Facilities' Web Sites.

For your safety and the safety of the entire community, the following common set of protocols will be used by all five Shared Equipment Facilities operated by the Department of Chemistry & Biochemistry:

- The Shared Facilities will continue to be open 24/7 to **TRAINED USERS who are authorized by campus for Phase II Research. TRAINED USERS are those who have been trained and certified by the Facility Manager for independent operation of specific equipment.**
- All Facilities Users must make **24-hour ADVANCE RESERVATIONS** on the Facilities, using the Reservation Systems employed by Each Facility for each Instrument. Walk-ins will not be permitted.
- All Facilities Users must complete all their measurements and perform necessary and posted sanitations within the scheduled time period.
- All Facilities Users should plan to do their measurements individually, and not with laboratory partners or staff members. For operations that require the specific assistance of a staff member or partner, please contact the Facility Manager directly for guidance.
- Facility Staff will be on site a portion of the regular workweek, to maintain their facilities and monitor Phase II operations. Otherwise, staff will continue to telecommute, when possible, for activities (consultations, data analysis, reporting, scheduling) that do not require their physical presence at the Facility.
- All Facilities Users must wear a face mask at all times. Gloves must also be worn, whenever practical, while at the facilities. Users must provide their own face mask. Gloves will be available in each Facility.
- All **TRAINING** of new users will be **LIMITED** during Phase II Operations.
- The Facilities Staff will continue to run samples for untrained users, or those who wish these expert services. Each Facility has developed a contact-free drop off protocols for this purpose.
- All Consultations with Facilities Staff will be done remotely, via ZOOM or similar mechanisms. All Consultations will be done during regular business hours – Monday-Friday 9 am – 5 PM.
- All Facilities Users must obey all UMCP regulations for COVID-19 Phase II Research, including completing of the [COVID 19 Employee Screening Checklist](#) and completing the building visitation log, ink [Employee Building Visitation Log](#) on each day of facility usage.
- Researchers must have attended a mandatory COVID-19 test with negative results and must not come to campus if living with or caring for someone with COVID 19 or if awaiting a COVID 19 test result.
- Researchers must always abide by the following social distancing restrictions (6-foot minimum separation) and posted laboratory occupancy limits.
- All Facilities Users are required to complete the COVID-19 campus safety awareness training, as soon as it is released by campus

Phase II Research demands that all Users behave responsibly and closely follow these rules, and any additional Facility-specific COVID-19 protocols. This requires greater organization and responsibility for planning and scheduling measurements, performing sanitations, and wearing PPE, and following all UMCP Regulations for campus access. Failure to comply with COVID-19 Safety Regulations risks the health and safety of all and will result in immediate termination of Facilities access during Phase II Research.