

## NMR Scheduling

- (1) Authorized users may schedule no more than 1 block (i.e., 3 or 3 ½ days) without prior approval.
- (2) Additional blocks can be reserved if no one has signed up by a particular time (see below).
- (3) Short (1 day or less) experiments should be scheduled for either Monday or Thursday.
- (4) If the assigned group do not arrive after 2 hours from the start time, other group can use 1-2 hours instrument time on this slot.
- (5) Preassigned slots are decided by the NMR Steering Committee based on the needs in funded projects. Contact the facility manager or the NMR Steering Committee if you need additional time.

NMR scheduling will be cycles of the following.

### Week 1

	Block 1				Block 2			
	Mon	Tue	Wed	Th	Thu	Fri	Sat	Sun
600	General			M	Iwahara lab			
750	General			M	Rajarithnam lab			
800	Rajarithnam lab			M	Iwahara lab			

### Week 2

	Block 1				Block 2			
	Mon	Tue	Wed	Th	Thu	Fri	Sat	Sun
600	Iwahara lab			M	Iwahara lab			
750	Rajarithnam lab			M	General			
800	General			M	Rajarithnam lab			

Block 1: Monday 8:30am – Thursday 8:30am

Block 2: Thursday noon (or after cryogen filling) – Monday 8:30am

M: Maintenance, including liquid N<sub>2</sub> / He filling

For 'General' slots:

- Any research groups (including Iwahara and Rajarithnam groups) can reserve.
- Only one block (Block 1 or 2) can be reserved >24 hours before the start time.
- Additional blocks can be reserved if no one has reserved Block 1 by Friday noon in the preceding week, or Block 2 by Monday noon in the same week.
- If two consecutive blocks (i.e., one week) need to be reserved for 750, users should contact the facility manager (Tianzhi Wang) for approval at least 1 week before the start time.
- If only a short time (a day or less) is required (e.g., quick sample check), reservation should be made for either Monday or Thursday so that others can use the instrument for two consecutive days in the same slot.

For preassigned slots:

- The NMR Steering Committee decides these slots based on the needs in funded projects.

- If no experiment is planned, the assigned group should notify by email so that others can use it ASAP.
- If the assigned group do not arrive after 2 hours from the start time, other group can run 1-2 hours experiments.
- The NMR Steering Committee will rearrange these slots if a major problem has occurred on any NMR instrument.
- The facility manager enters these slots into the scheduling calendar system every 10 weeks (i.e., 5 cycles of Weeks 1 and 2).

### **Only authorized user can use NMR facilities.**

1. The general rule for NMR users signing up NMR time in advance:

(1) No more than **1 block** reservation in advance is allowed for 'General' slots.

(2) Additional blocks can be reserved without permission if no one has reserved Block 1 by Friday noon in the preceding week, or Block 2 by Monday noon in the same week.

2. Comply with UTMB's rules and policies for high magnetic-field instruments. Users should take the annual online-training course "Magnetic Resonance Safety Training".

3. No food, no drink in NMR room and no internet browsing with NMR host computers.

Never move any equipment and close or open any valves of liquid helium and nitrogen tank without authorization. (If it is emergency, let Tianzhi Wang know).

4. Don't leave the magnet empty. Insert the dummy sample (10% D<sub>2</sub>O, 90% H<sub>2</sub>O for 750 and methanol for 600 and 800 MHz NMR) in the magnet after you finish your experiments. This is important for protecting the NMR probes from insects and heavy dust.

5. If you sign up for "All Day" or "Over Night," you should make sure that your experiment finishes **before 8:30am** for the next user. If you do not pick up your sample by 8:30am, the next user is allowed to take the sample out of the magnet and exit the topspin program.

6. If you find the previous user's sample in the magnet, you should put it in the NMR tube rack on the console unless he or she noted otherwise. It is individual users' responsibility to keep their NMR samples under appropriate conditions. Users may keep samples in the refrigerator at the NMR facility. You may contact the facility manager if you cannot come to pick up and store your sample in time.

7. Make a note of any problems you encounter (no matter how trivial they may seem) and report to Tianzhi Wang.

8. Do not change any NMR probes or reconnect any RF cables. Only the facility manager is authorized to do it.

9. Don't use any color receptacle in NMR room. Don't use any power supply within the 5-Gauss lines.

10. Do not run any experiment if they exceed the RF or PFG power limit. Do not change power levels, but do optimize pulse lengths in the range +/- 30%, based on the standard pulse length (see the table of 'edprosol') for your experiments. Contact the facility manager if you are not sure.

11. Do not run any new pulse sequences without permission from Tianzhi Wang.
12. Contact the facility manger if your experiment requires temperature below 2°C or above 40°C. Depending on probes, the applicable temperature range is different. If you run experiments lower than room temperature or higher than 35°C, the ceramic spinner should be used. Set the temperature back to 25°C after you finish your experiments.
13. We reserve the right to revoke anyone's privilege to use the NMR facilities if these rules are willfully violated!

If you have any problem running your experiments, please contact Tianzhi Wang: (409)747-6821 (office).

**Caution Strong Magnetic Fields**  
**Pacemaker, Metallic Implant Hazard**

Strong magnetic and RF field are present that cause serious injury or death to persons with implanted or attached medical devices, such as pacemakers and prosthetic parts. Such person must not go to the NMR room until Safety at distance is identified by a physician or device manufacturer. See Safety Notes for more detail.