

New policy for the collection of sample tubes from the NMR Laboratory

In order to comply with the requirements for the disposal of contaminated waste at Northwestern, we need to introduce a new policy the collection of user samples that have been run on the Facility Spectrometers. In particular, stringent rules will apply to the collection of samples from the automated Ag500 or on the X500 spectrometers.

When this policy is implemented fully, the following critical changes to current operations will be enforced:

1. **All NMR tubes must be labelled with the NetID of the user.**
2. **All NMR samples run on the Ag500 or X500 must be collected within 72 hours of the experiment associated with that sample being run.**
3. **All samples run on the other spectrometers in the Facility must be removed by the user immediately after their experimental time has finished.**

For the automated spectrometers, the new system will work operationally as follows:

- There will be two bins next to the computer monitor on both the Ag500 and the X500. These bins will have coloured labels attached allow easy identification. The bin marked **Staff** is for the use of IMSERC staff, the bin marked **User** is for the use of users who wish to clear space in a full queue in order to run their experiments.
- These bins will hold all samples from cleared from the respective queues within a 24 hour period. If users do not collect their samples within this 24 hour period, any remaining tubes will be moved to the sample holding area at the first queue clearance on the following day. For operational purposes, samples run on Friday will be moved to the holding area at 16.30. Samples run between 16.30 on Friday and 09.00 on Monday will be considered to have been run on the same day and will be moved to the holding area at the first queue clearance on Monday.
- If the all of the positions in the Sample Xpress on the X500 or Ag500 are full and a user wishes to run their sample, the user is still permitted to remove samples from the sample changer in order to free up space for their samples in the queue. When removing samples from the sample changer, users should remove the lowest numbered completed samples that are convenient for their needs. Once removed from the sample changer, **these samples must be placed in the bin labelled “User”**. DO NOT REMOVE ANY SAMPLES THAT HAVE NO NETID ON THE TUBE.
- At the first queue clearance of each day, the bins will be moved to the holding area. This area will be clearly signposted in the NMR lab. Once samples reach the holding area, users have 72 hours to retrieve them from the containers. The position of the sample bins in the holding area reflects the time since these samples were placed in that area—either 24, 48, or 72 hours.

- After 72 hours, samples will be removed from the holding area for processing by IMSERC staff for return to groups. As there will be a charge for the return of samples to research groups by IMSERC staff, you may still retrieve your sample from the processing area up to the point that IMSERC staff return these to you. Sample return by IMSERC staff will take place periodically.

Points to note

Labelling of tubes

It is essential that all NMR tubes are labelled with the NetID of the user. Operationally, this can be achieved in a number of ways—labels or writing on the tube with permanent marker. Whichever method is used, the labelling must be legible. Tubes with illegible markings will be treated as if unlabelled.

The user associated with an unlabelled tube has to be identified by IMSERC staff and the sample returned to the user. This process will incur a charge to the appropriate PI. For a first offense, a nominal \$0.01 charge will be made against the user and a warning will be issued. For second and subsequent offences by the same user, the PI will be informed, and a charge will be made for one hour of IMSERC staff time, representing the time required to identify the user concerned and return the sample to the appropriate lab. A discretionary account will be requested from the PI to pay these charges.

Uncollected sample return to research groups

Once samples have passed through the 72 hour holding area, they are moved to a location for processing by IMSERC staff for return to research groups. Users may still retrieve their samples at this point but must ask IMSERC staff to be directed to the appropriate location.

Samples left behind at spectrometers not operating in automation will be moved to the processing area and be subject to the same return charges.

Once the samples have been processed for return, they can no longer be collected by users.

Samples processed and returned by IMSERC staff will be charged at the following rate:

Each sample: 5 minutes of IMSERC staff time.

Return to PI lab: 15 minutes of IMSERC staff time.

For example, IMSERC staff process **6 samples** that were not collected in a timely manner by researchers from a particular research group. The charge for the IMSERC staff processing these samples and returning them is **45 minutes of IMSERC staff time** ($6 \times 5 + 15$).

A discretionary account will be requested from the PI to pay these charges.