**NMR Guidelines**

Contact Details

NMR Service Manager

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Technician

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Sample preparation

* Always use a clean NMR tube
* Tubes must be of sufficient length (minimum 170 mm)
* Do not use broken NMR tubes or tubes with cracks
* Filter your sample
* Solvent level of least 4cm with no solid present
* Handle turbines with care - they are precision items and very expensive
* Tube should be marked for identification (unidentifiable tubes are at risk) and use the colour cap of your research group

We recommend that users purchase NMR Tubes from GPE Scientific Limited ([www.gpescientific.co.uk](about:blank) : Agresso Supplier Id 26663)

Submitting a sample

* Select the right experiment: decide what information you need, only select the experiment(s) which will give you this information
* Don’t waste instrument time by submitting every sample for all available experiments
* Run 1H spectrum to check purity and concentration prior to submitting sample for multiple experiments
* Tubes and turbines must be spotless, e.g. no fingerprints or powder from gloves. Wipe turbine surfaces and tube with a tissue not blue roll. Do not touch surfaces afterwards
* Place tube in turbine making sure the tube is fitting tightly to correct depth using gauge
* Check carousel window to find next available holder in sequence and place turbine with tube in carousel holder.
* Leave gaps in multiple submissions (e.g. 4 1H experiments should be submitted two- space -two)

Use of the NMR lab

* Do not approach the magnets with magnetic objects, e.g. keys, bank cards, watches etc. - these may damage the magnets and may themselves be damaged (e.g. bank cards).This is particularly important for the unshielded magnet of the AVIII400 in room C3-04a
* No Lab coats or disposable gloves to worn in the NMR Lab
* Keep NMR labs tidy - pick up samples and spectra promptly.
* Take away all spectra when experiments are finished, if you do not want to keep the printouts please put them in the recycled paper bin in the lab
* Put used tissues and rubbish in bin
* Place any broken tubes & glass shards in the container provided in lab

New procedures for use of the spectrometers with COVID19 restrictions in the NMR Labs

* Only one user in the lab at a time
* Use the hand sanitiser provided prior to touching the spinners and depth gauge or alternatively use the disposable gloves provided in the lab.
* Wipe the keyboard and mouse with a wipe when you have finished submitting your sample.
* Please collect samples from the lab when your experiments are finished and do not leave them in the lab.
* If you use the disposable gloves please remove and place them in bin before exiting the lab

Use of NMR Spectrometers

* The samples on all spectrometers will be run in numerical order during the daytime and in order of submission in the night queue.
* The PRIORITY FACILITY may only be use with permission from either Dr David Adam or Alec Mungall. If you require to use this facility please obtain permission BEFORE preparing and submitting the sample to the spectrometer queue. Any user who abuses this facility will have their NMR account suspended.
* Please see below for times and availability of all spectrometers.
* All new users must register and be trained by Dr. David Adam prior to being allowed access to all the spectrometers.

NMR Spectrometers and their Availability

AVIII 500 MHz

* Available to staff, post-docs and post-grads only
* Daytime (8am – 8pm: operates Mon – Fri & Sunday)
* Limit your sample time to 1 hour per sample during the day
* Night time (8pm – 8am: operates every night and all day Saturday)

AVIII 400 MHz (unshielded magnet)

* Available to all trained users
* Daytime (8am – 8 pm operates Mon – Fri & Saturday)
* Limit your sample time to 20 minutes per sample during the day
* Night time (8pm – 8am operates every night and all day Sunday)

AVIII 400 MHz (lab C3-03)

* Available to staff, post-docs and post-grads only
* Daytime (9am – 9pm operates every day)
* Limit your sample time to 20 minutes per sample during the day
* Night time (9pm – 9am operates every night)

There will be a booking system for those users wanting to use the spectrometers for specialised experiments. Users wanting to book time must contact Dr David Adam or Alex Mungall at least 3 days prior to the booking, thus allowing an email to be sent by the user making the booking to inform all other users of their booking.

**Any user who does not follow the NMR guideline will have his/her login removed from the spectrometers for a period of time thus preventing them using the spectrometers during this period**.