## Nuclear Magnetic Resonance (NMR) Core

More info: <https://research.missouri.edu/nuclear-magnetic-resonance-core>

The Nuclear Magnetic Resonance (NMR) Core was the first core research facility to be established at MU. The NMR provides equipment maintenance and infrastructure support for research projects that require NMR and offers training to scientists so that they are proficient in the use of facility instrumentation. Instrumentation includes a Bruker Avance III 600 MHz Spectrometer (equipped with four RF channels, a TCI probe with an ATM Module and cryo-chilled 1H and 13C preamplifiers, and an auto sample changer with a chiller that allows random access to up to 24 samples), a Bruker Avance III 500 MHz spectrometer (with sample changer and a TCI probe with an ATM Module and cryo-chilled 1H and 13C preamplifiers), two Bruker Avance III 400 MHz spectrometers (with sample changers), and a Bruker AVII+ 300 MHz spectrometer. An 800 MHz instrument was added in early 2008 and is housed in the Schweitzer Hall Addition. This instrument has the advanced Ultra-Shield-Plus magnet with four radiofrequency (RF) channels, an ATM (automatic tuning and matching) and a TCI (1H/13C/15N) probe with cryo-chilled 1H and 13C preamplifiers, and a 24-slot automatic sample changer with a chiller. All spectrometers have multinuclear capability. The NMR facility and staff are available for research support to investigators who want to use NMR for structural elucidation of small molecules, structural determination of biomolecules, biomolecular dynamics, and for the study of chemical and biological reactions as well as metabolomics. Assistance in the design of experiments and spectral analysis is available upon request.