Biomolecular Magnetic Resonance Facility



About Us

The Biomolecular Magnetic Resonance Facility (BioNMR) is available to all investigators at the University of Virginia and has four NMR spectrometers. They all execute experiments typically used for structure elucidation and dynamics characterization of both small and large (ie. protein) molecules in solution.



Our Services

Nuclear magnetic resonance (NMR) spectroscopy provides information on molecular structure and dynamics at atomic level resolution. The UVa Biomolecular Magnetic Resonance Facility facilitates and promotes research which utilizes NMR spectroscopy to examine molecules in solution. Molecules with molecular weights between 10 and 10^6 grams/mol can be studied. Assistance is available for all who wish to use NMR spectroscopy.

- Consultation
- 600 and 800 MHz NMR spectrometer time

Instrumentation

- Neptune Bruker Avancelli 800 located in Room 138 Specifications: 4 RF channels, pulse field gradient - Z-axis, probes and accessories: 5mm HCN Zpfg cryoprobe
- Ariel Bruker AvanceIII 600

located in Room 138

Specifications: 4 RF channels, pulse field gradient - Z-axis, probes and accessories: 5mm HCN Zpfg, auto sample changer

Echo – Varian NMRS 600

located in Room 175

Specifications: 3 RF channels, pulse field gradient - Z-axis, probes and accessories: multiple probes

 Shamu – Varian NMRS 600 located in Room 122
Specifications: 4 RE channels in

Specifications: 4 RF channels, pulse field gradient - Z-axis, probes and accessories: 5mm HCN and HCP Zpfg

New 400 MHz and 600 MHz Bruker Neo spectrometers with large sample temperature range (140°C to -80°C) and automatic sample changers will be installed in late 2023 and early 2024.

> The BioNMR lab instrumentation can be used to obtain atomic resolution information about

molecular structure



Enhancing Research, Rigor and Reliability

Our Team

Jeff Ellena PhD - Director Senior Scientist





Contact

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