

CALL FOR APPLICATIONS FOR NMR AWARDS, 2009 - 2010

DEADLINE: 5 PM, Friday, September 11, 2009

The Office of Research has generously provided \$15,000 for the NMR Awards program. NMR Awards are provided to U.C. Davis faculty to foster research utilizing the instrumentation at the U.C.D. Nuclear Magnetic Resonance (NMR) Facility for NMR spectroscopy and magnetic resonance imaging (MRI).

Eligibility: Academic Senate members and Academic Federation members with P.I. status.

How to Apply: Instructions are available at <http://www.nmr.ucdavis.edu/NMRAward/NMRAward.html>

The purpose of NMR Award funding is to promote research using NMR spectroscopy and MR imaging. Applications will be reviewed for the soundness of the proposed research; for continuing proposals, accomplishments of the past funding period will be a consideration. *Priority will be given to new faculty*, those seeking funding for a *new area of research* for the applicant, and faculty with limited research support. Priority will also be given to proposals that show promise of leading to extramural funding. Evaluations of the Applications for NMR Awards will be made by members of the NMR Facility Advisory Board with final approval of awards from the Vice Chancellor for Research. Awards will be announced by the end of September.

The maximum award is \$2000. Awards are subject to the availability of funds.

Information on instrumentation at the NMR Facility, along with spectrometer usage rates, can be found on the next page. Additional information may be obtained from Dr. Jeff de Ropp, gmsmith@ucdavis.edu (2-6168).

G. M. Smith, Director
NMR Facility

U.C.D. NUCLEAR MAGNETIC RESONANCE FACILITY Rates, 2009

USER RATES: Spectra run by trained users:

All spectrometers, M-F, 8AM-5PM	\$15/hour
All spectrometers during all other hours	\$6/hour
Workstation, all hours	\$3/hour
OPERATOR TRAINING COURSE (lab portion)	\$330/student

DIRECT SERVICE RATES: Data collection/processing by Facility Staff:

All Instruments	\$58/hour
-----------------	-----------

INSTRUMENTATION

The NMR Facility provides access to MR instrumentation for campus researchers. The Facility currently has 9 instruments of varying field strength, bore configuration/size, and application.

<u>Spectrometer</u>	<u>Proton Frequency; Tesla</u>	<u>Primary Use</u>
Avance 800	800 MHz, 18.8 T	Liquids spectroscopy
DRX-600	600 MHz, 14.1 T	Liquids spectroscopy
VNMRS-600	600 MHz, 14.1 T	Liquids spectroscopy
DRX-500	500 MHz, 11.75 T	Liquids spectroscopy
Avance-500	500 MHz, 11.75 T	Solids spectroscopy
DRX 400	400 MHz, 9.4 T	<i>In Vitro</i> spectroscopy, Microimaging
Inova 400	400 MHz, 9.4 T	Liquids spectroscopy
Merc-300	300 MHz, 7.05 T	Liquids spectroscopy
MercPlus-300	300 MHz, 7.05 T	Liquids spectroscopy
Biospec 7T	300 MHz, 7.05 T	Small animal (mice, rats) imaging

All of the spectrometers are multinuclear, and are equipped with a large variety of probes/coils for liquids, or solids spectroscopy, and imaging depending application. The bore size of the Biospec 7T is suitable for MRI of animals the size of rats and mice. The Facility also has workstations for off-line data treatment.

The Facility offers an annual training class (BCM 230, offered every Fall quarter) to enable users with long-term NMR research projects to independently operate the spectrometers. In addition, for those needing occasional NMR data, Facility Staff are available to operate the spectrometers. Further details on scheduling, training, and the Facility recharge structure are available at the Facility Web site:

<http://www.nmr.ucdavis.edu>

Research at the NMR Facility currently includes projects by over 70 faculty from more than 25 campus departments on topics such as biomolecule structure determination, magnetic resonance imaging (MRI) and localized *in vivo* NMR spectroscopy of small mammals for biomedical research, imaging of multiphase transport phenomena, determination of the structure of solid inorganic complexes, NMR metabolomics, structure of natural products, and many other research areas.