ANTEC houses state-of-the-art bionanotechnology research equipment, which allows for the evaluation of samples on a cellular and molecular level. The core serves Northwestern University researchers and is open to visiting scientists and local industry researchers.

ANTEC instruments are unique to the Chicago campus. Our newest Modular Compact Rheometer MCR302 characterizes mechanical properties of highly sensitive biomaterials. Our Cytation3 combines cell imaging and conventional microplate detection, enabling an array of analytical technologies ranging from microscopy, automatic cell counting, and image statistics to absorbance, luminescence, and fluorescence detection on slides, flasks, and plates. The Zetasizer Nano ZSP allows for measurement of absolute molecular weight, size, mobility, and Zeta potential of nanoparticles. Labconco Freezone 6 and 6 Plus freeze dryers are used for the preparation of highly customized synthetic peptides and to dehydrate biological samples with minimal damage.

Equipment in the core is self-service and training is required. ANTEC is located on the 11th floor of the Robert H. Lurie Medical Research Center on Northwestern University’s Chicago Campus.

For more information about ANTEC

Contact:
Alexandra Kolot
Director
ANTEC
a-kolot@northwestern.edu
(312) 503 6708

Christopher Tarczynski
Research Technologist
c-tarczynski@northwestern.edu
(312) 503 6725

www.sqi.northwestern.edu/antec.html

Simpson Querrey Institute
Northwestern University
Robert H. Lurie Medical Research Center
303 E. Superior Street, 11th Floor
Chicago, Illinois 60611

www.sqi.northwestern.edu
The newest acquisition at ANTEC is a Modular Compact Rheometer MCR302, which is used to study shear-dependent properties of cell-encapsulating gels, scaffolds, cell-laden bioinks for 3-D printing, and mimetic tissues. These materials are designed to be introduced into living organisms, and MCR302 is used to simulate in vivo conditions. The rheometer measures shear stress, shear modulus, and viscosity of biomaterials in small volumes, allowing the evaluation of time-dependent stress effects under a variety of chemical conditions. The MCR302 is a highly diverse mechanical tester that can be utilized for a wide variety of rheological tests in rotational and oscillatory mode, including dynamic mechanical analysis.