



The Robert H. Lurie Comprehensive Cancer Center Shared Resource Core Facilities



ROBERT H. LURIE
COMPREHENSIVE CANCER CENTER
OF NORTHWESTERN UNIVERSITY

The Robert H. Lurie Comprehensive Cancer Center of Northwestern University supports shared facilities and resources to provide services, equipment and expertise that are fundamental to understanding the basic biology and clinical manifestations of cancer. These facilities and resources are available to serve the research needs of faculty from all of Northwestern's affiliated institutions, and support the Cancer Center's mission to foster basic and translational research in the mechanisms and treatment of cancer.



FACILITY	DESCRIPTION OF SERVICES	CONTACT INFORMATION
BIOINFORMATICS FACILITY	The Bioinformatics Core Facility provides analysis, support and design for microarrays, proteomics, clinical trial informatics as well as custom web-based database development for basic science and clinical projects.	Director: Warren Kibbe, PhD Location: 676 N. St. Clair, Suite 1200, Chicago, IL, 60611 Phone: (312) 695-1334 Email: wakibbe@northwestern.edu
BIOSTATISTICS CORE	The Biostatistics Core Facility provides biostatistical and data management support including such services as: data analysis, clinical trial design, database design and management, design and analysis of clustered data, diagnostic screening tests, gene microarray analysis, protocol preparation, and sample size determination.	Director: Alfred Rademaker, PhD Location: 680 N Lake Shore Dr, Ste 1102, Chicago, IL 60611 Phone: (312) 908-1970 Email: rademaker@northwestern.edu
CANCER DIAGNOSTIC & THERAPEUTICS SCREENING CORE	The Cancer Diagnostic & Therapeutics Screening is a new facility that provides academic, industrial, and private researchers with equipment and expertise for the development and execution of high throughput biological analysis and screening. The facility is fully equipped with state-of-the-art liquid handling, plate detection and automated microbial culture handling capabilities.	Director: Eric Weiss, PhD Manager: Chi-Hao Luan, PhD Location: 2205 Tech Drive, Hogan 2-100, Evanston, IL 60208 Phone(312) 491-5643 Email: elweiss@northwestern.edu luanch@northwestern.edu
CELL IMAGING FACILITY	The Cell Imaging Facility caters to the needs of Northwestern's research communities to study biological processes at the whole animal, tissue, cellular and subcellular levels. The facility's services include light, fluorescence, confocal, and electron microscopy; microinjection; advance live cell imaging techniques such as FRAP, FRET, FLIP, TIRF, photoactivation and photoconversion; small animal intravital fluorescent imaging, computerized image analysis; and digital image manipulation. Facility personnel provides consultation on experimental design, sample preparation, data analysis, and instrument operation. In addition, the facility has an active program of instrument testing and application development. http://www.feinberg.northwestern.edu/cif	Director: Teng-Leong Chew, PhD Location: 303 E. Chicago Ave, Morton 2-633, Chicago, IL 60611 Phone(312) 503-2841 Email: t-chew@northwestern.edu
CLINICAL PHARMACOLOGY CORE	The Mary Beth Donnelley Clinical Pharmacology Core Facility provides investigators pharmacokinetic support for clinical studies, including Phase I and Phase II clinical trials of cancer chemotherapeutic agents and analgesics. Support includes optimizing the design, conduct, analysis, and interpretation of the pharmacokinetic portion of clinical studies.	Director: Michael Avram, PhD Location: 303 E Chicago Ave, Ward 13-208A, Chicago, IL 60611 Phone: (312) 908-0636 Email: mjal90@northwestern.edu
CLINICAL RESEARCH OFFICE	The Clinical Research Office (CRO) provides a centralized resource to facilitate the development, conduct, quality assurance monitoring, compliance with regulatory agency requirements, and evaluation of clinical research/trials at the Robert H. Lurie Comprehensive Cancer Center of Northwestern University. It serves this function for all five affiliated institutions. As such the office coordinates the majority of clinical research conducted in medical oncology, malignant hematology, gynecologic-oncology, neuro-oncology, radiation oncology, surgical oncology, and chemoprevention.	Director: Timothy Kuzel, MD Administrative Director: Renee Webb Location: 676 N. St. Clair, Suite 1200, Chicago, IL 60611 Phone: (312) 695-1301 Email: t-kuzel@northwestern.edu; r-ripenburg@northwestern.edu
FLOW CYTOMETRY FACILITY	In addition to providing access to routine flow cytometry assays such as immunophenotyping and DNA analysis, the facility provides the guidance, technical assistance, and equipment for investigators to utilize more complex multi-parametric, multi-laser measurements as well as cell sorting in their research. Thus, the Flow Cytometry Core Facility serves as a focus for individuals interested in cellular based measurements and cellular heterogeneity in disease. Services provided by the facility personnel extend from consultation on experimental design, sample preparation and data analysis to instrument operation and set-up for cell-sorting and multi-laser operation. In addition, the facility has an active program of assay development.	Director: Charles Goolsby, PhD Manager: James Marvin Location: 710 N Fairbanks Ct, Olson 8505, Chicago, IL, 60611 Phone: (312) 908-1294 Email: c-goolsby@northwestern.edu j-marvin@northwestern.edu
GENOMICS CORE FACILITY	The Genomics Core Facility is a shared resource facility that provides a wide range of services to Cancer Center members and the Northwestern University research community. The core offers full or partial services on high throughput put expression profiling and SNP analysis using both Affymetrix and Illumina platforms; RT-PCR and low density SNP analysis using 7900HT; RNA quality control using the Agilent 2100; DNA sequencing and high throughput put DNA extraction using Autopure LS from Qiagen.	Director: Nadereh Jafari, PhD Location: 303 E Chicago Ave, Ward 9-148, Chicago, IL 60611 Phone: (312) 503-3702 Email: n-jafari@northwestern.edu
KECK BIOPHYSICS FACILITY	The Keck Biophysics Facility is a center for studying structures, dynamics and interactions of biological and synthetic macromolecules. The facility has a comprehensive collection of 22 research instruments including fluorimeters and spectrophotometers, calorimeters, analytical ultracentrifuge and light scattering instruments. The instruments are accessible to trained users on a 24 hour/7 days a week basis. The facility personnel provide individual training, focused expertise, counseling and assistance in utilizing the research equipment. http://www.biochem.northwestern.edu/Keck/keckmain.html	Director: Jonathon Widom, PhD Manager: Arabela Grigorescu, PhD Location: 2200 Tech Dr, Cook 3-403, Evanston, IL 60208 Phone: (847) 491-7610 Email: a-grigorescu@northwestern.edu
MONOCLONAL ANTIBODY FACILITY	The Robert H. Lurie Comprehensive Cancer Center's Monoclonal Antibody Facility provides Cancer Center and Northwestern University investigators access to the technology for the efficient creation of hybridoma cell lines and the production of monoclonal antibodies from these cell lines. These services include immunization of animals, somatic cell fusions, cloning and screening of hybridomas, subcloning and establishment of antibody producing cell lines, and production of active antibodies from hybridoma lines. In addition to providing these services, the facility provides consultation and training for NU investigators interested in establishing any of these activities in their own research laboratory or using monoclonal antibodies in their research.	Manager: Izolda Popova, PhD Location: 303 E Chicago Ave, Ward 19-303, Chicago, IL, 60611 Phone: (312) 503-3325 Email: i-popova@northwestern.edu
MOUSE PHENOTYPING CORE FACILITY	The purpose of the Mouse Phenotyping Core Facility is to assist investigators with gross and histological characterization of genetically modified murine models. Studies can be performed on individual organs or involve a systemic overview of all major organ systems to identify new target organs for genes. Pathologist consultation will allow the development of strategies to elucidate the phenotype and gain mechanistic insight regarding the biologic actions of the targeted molecule. Investigators can be trained in dissection techniques, as well.	Director: Susan Crawford, MD Location: 303 E Chicago Ave, Tarry 7-726, Chicago, IL 60611 Phone: (312) 833-2844 Email: scrawford@northwestern.edu
OUTCOMES MEASUREMENT & SURVEY CORE	The mission of this core facility is to provide consultation and support for research that involves collecting, analyzing or interpreting self-report data, and to promote the understanding of measurement fundamentals and the improvement of research practice. The OMC provides consultative and analytic expertise on the best ways to measure outcomes derived by self-report, serve as a central resource for state-of-the-art instruments and measurement methods, and provides in-house research support services for the collection of outcomes data.	Director: Elizabeth Hahn, MA Location: 1001 University Pl, Ste 100, Evanston, IL 60201 Phone: (224) 364-7373 Email: e-hahn@northwestern.edu
PATHOLOGY CORE FACILITY	The Pathology Core Facility of the Robert H. Lurie Comprehensive Cancer Center of Northwestern University has three main components: research histology, specimen procurement and protocol review. The research histology component provides all of the tissue processing and histology services typically performed in a clinical laboratory but it is specifically dedicated to the needs of the Northwestern University research community in general and the Cancer Center research community in particular. The Pathology Core Facility is unique in that it has the capability and flexibility to address specific research protocol needs. The tissue procurement component of the Pathology Core Facility will have two main functions: (1) human tissue and fluid procurement, storage and distribution and (2) quality assurance and protection of research subjects.	Manager: Adekunle Raji Location: 710 N Fairbanks Ct, Olson 8-419, Chicago, IL, 60611 Phone: (312) 908-9595 Email: a-raji@northwestern.edu
STRUCTURAL BIOLOGY FACILITY	The facility is essential for the research programs of investigators who are studying the relationship between macromolecular structure and function or who are using protein structure as the starting point for structure-based drug design. The Structural Biology Facility is a unique resource at Northwestern University that capitalizes on the extensive expertise of a large group of users and regular access to the synchrotron radiation X-ray source at the LS CAT beamline at the Advanced Photon Source at Argonne National Laboratories. This resource also serves to nucleate the development of a local community with expertise in structural and computational biology.	Director: Alfonso Mondragon, PhD Manager: Pamela Focia, PhD Chicago: Location: 303 E Chicago Ave, Ward 8-296, Chicago, IL, 60611 Phone: (312) 503-0848 Evanston: Location: 2205 Tech Dr, Hogan 2-100, Evanston, IL 60208 Phone: (847) 491-7726 Email: a-mondragon@northwestern.edu focia@northwestern.edu
TRANSGENIC & TARGETED MUTAGENESIS CORE FACILITY	The Northwestern University Transgenic and Targeted Mutagenesis Laboratory is a shared resource designed to produce genetically engineered mice for research projects of investigators within Northwestern University's research community. The facility provides a broad range of services, including generation of transgenic mice, gene targeting of embryonic stem (ES) cells, ES cell microinjection into blastocysts, cryopreservation and recovery of mouse embryos, and rederivation of pathogen free mouse strains. The Laboratory provides the necessary infrastructure to allow most investigators to access transgenic technology that normally requires expensive equipment and highly skilled technical staff. Staff also provide consultation on all aspects of transgenic related technologies ranging from animal protocol approval to breeding, screening and analysis of newly created transgenic or chimeric mice; and are available to provide guidance regarding targeting vector design, appropriate screening strategies, and DNA isolation methods for gene targeting projects.	Director: Warren Tourtellotte, MD, PhD Director of Operations: Lynn Doglio, PhD Location: 303 E Chicago Ave, Tarry 4-727, Chicago, IL, 60611 Phone: (312) 503-0088 Email: warren@northwestern.edu l-doglio@northwestern.edu