CORE FACILITIES
Prepared for
Department of Medicine Faculty

Analytical Biochemistry
(Masonic Cancer Center) .................................................. www.cancer.umn.edu/research/cores
Services:
• Analytical Biochemistry and Biomarkers
• Chromatography services
• Mass spectrometry
Access: Open, but priority to Cancer Center members
Cost: Fee for service
Director: Stephen Hecht ........................................................ 612.624.7604
..................................................................................................... E-mail: hecht002@tc.umn.edu

Biomedical Genomics Center ........................................ www.bmgc.umn.edu/facilities/home.html
Services:
• DNA Sequencing and Analysis Facility
• Genotyping Facility
• Oligonucleotide & Peptide Synthesis Facility
• Microarray Facility
• RNAi Core Facility
Access: Open
Cost: Fee for service
Director: Kenneth Beckman .................................................. 612.626.2985
........................................................................................................ Email: kbeckman@umn.edu

University Imaging Centers ............................................ www.uic.umn.edu
Services:
The University Imaging Centers (UIC) compose a network of core imaging facility locations for advanced optical imaging and basic electron microscopy located within the AHC/Medical School (1-151 Jackson Hall, Minneapolis) and College of Biological Sciences (23 Snyder Hall, St. Paul) on the University of Minnesota Twin Cities Campus. The UIC cores serve internal and external research labs in the design of imaging experiments, choice of and training on suitable imaging systems, and subsequent image processing, visualization and analysis. The UIC provides more than 25 advanced imaging systems including wide-field microscopy; spinning disk confocal; four (4) laser-scanning confocal microscopes; a multi-photon/Second Harmonic Generation microscope; total internal reflectance microscopy; laser capture micro-dissection; live cell imaging systems; scanning and transmission electron microscopy; whole animal fluorescence, bioluminescence and chemiluminescence imagers; assorted light and fluorescence microscopes; gel-scanners; poster printers; 3 additional full-time and 4 part-time staff members. UIC anticipates expanding more aggressively in the areas of live-cell / live-animal imaging and super resolution microscopy.
Access: Open 24/7. The lab is staffed normally from 9:30 am to 5:30 pm, Monday through Friday.
Cost: Fee for service
Program Director: Mark Sanders .............................................................. 612.624.3454
Scientific Advisor: Martin Wessendorf ............................................... 612.626.0415
Computer/printing questions: Gregg Amundson ................................. 612.624.6607
Equipment/microscope questions: John Oja ...................................... 612.624.7938

Biostatistics and Informatics
(Masonic Cancer Center) ................................................................. www.cancer.umn.edu/research/cores/biostats
Services: · Biostatistical support for planning, monitoring, and analysis of a study
Access: Priority to funded cancer-related projects of Cancer Center members; support of other projects can be arranged.
Cost: Limited statistical services are provided free of charge to researchers planning funded cancer-related projects or conducting cancer-related research. Extended collaboration with the Biostatistics Core should be directly supported by the appropriate funding sources. Services on funded projects receive priority.
Director: Chap T. Le .............................................................................. 612.624.9963
.................................................................................................... E-mail: chap@biostat.umn.edu

Biostatistical Design and Analysis Center
(CTSI) ....................................................................................... www.ctsi.umn.edu/research/ctrs/biostatistics/bdac
Services: · Grant proposal preparation
· Data management
· Statistical analysis
· Manuscript preparation and review
Access: Open
Cost: Rates
Director: John Connett ........................................................................ 612.626.3699
.................................................................................................... E-mail: john-c@ccbr.umn.edu

Characterization Facility ........................................................................www.charfac.umn.edu
Services: Microscopy via electron beams (TEM, SEM), force probes (AFM) and visible light including cryogenic methods; elemental and chemical imaging including depth profiling; elemental, chemical and mass spectrometry; vibrational spectroscopy; atomic and molecular structure analysis via X-ray, electron and ion beam spectroscopy; nano- and micro-mechanical testing and nanotribological probes; and other tools for surface and thin-film metrology. Assistance with sample preparation and analysis. Periodically the facility conducts master classes and workshops on a variety of materials analysis topics, check website for updates, www.charfac.umn.edu. User Registration: 612.625.7594; charfac@umn.edu.
Access: Open
Cost: Self use instrument rates; staff-assist rates; class training rates for some instrumentation.
Director: Greg Haugstad ....................................................................... 612.625.1352
......................................................................................................... Email: haugs001@umn.edu

Clinical and Translational Science Institute ..............................................www.ctsi.umn.edu
Services: CTSI's Clinical Translational Research (CTR) Portal is an interactive, web-based system designed to provide targeted and secure access to research project information. The CTR Portal provides access to: request CTSI services; view and approve invoices for CTSI services; a list of your projects included in the CTSI database; links to helpful tools and systems; news and information about CTSI. CTI Portal
Access: Open
Cost: Procedure rates
Contact: Initial consultations are free of charge for investigator-initiated and industry-sponsored studies. To initiate a free consultation, call 612-625-CTSI (2874) or email at ctsi@umn.edu.

Comparative Pathology
(Masonic Cancer Center) ................................................... www.cancer.umn.edu/research/cores
Services:
• Histology
• Immunohistochemistry
• Pathology
Access: Open, but priority to CC members
Director: Gerry O’Sullivan ......................................................... 612.625.3254
E-mail: gos@umn.edu

Flow Cytometry
(Masonic Cancer Center) ............................................. www.cancer.umn.edu/research/cores/flowcore
Services: The Flow Cytometry facility at the Masonic Cancer Center provides training, instrumentation, technical expertise, and software for flow cytometric analyses.
• Instrument Training
• Benchtop Instruments
• Cell Sorting
• Image Scanning Cytometer
• ViCell
• Odyssey
• Computer Workstations
• Acquisition and Analysis Services
Access: Open
Cost: Fee for service
Director: Christopher Pennell .................................................. 612.625.7138
E-mail: penne001@umn.edu
Coordinator: Paul Champoux ........................................................ 612.625.7165
E-mail: champ004@umn.edu

Flow Cytometry (Center for Immunology)
......................................................................................... www.immunology.umn.edu/sharedresources/flowcyt
Services: Consisting of 5 benchtop analyzers, a dual G5 Mac workstation and high-quality color printing capability. Instrumentation consists of 1 FACScan, capable of 5-parameter acquisition, and 2 FACSCaliburs, capable of 6 parameter acquisition and 2 Becton-Dickinson LSR II's. One FACSCalibur(E1764) is equipped with the Autoloader and Sort module. LSR II(H1160) is equipped with 4 lasers(14 parameter including UV) while the other LSR II(H1010) has 3 lasers(11 parameter) including a 50mW Violet.
Access: Open
Cost: U of M Employee $12/30 minutes
Coordinator: Paul Champoux ..................................................... 612.625.7165
E-mail: champ004@umn.edu

Glass Technology Services .............................................. www.chem.umn.edu/services/glasstech
Services:
• Fabrication and repair of scientific glass and laboratory equipment for Industrial, Chemical, Medical, and Research facilities
• Consulting
• Quartz Repair and Fabrication
• Cutting, grinding, and drilling

Access: Open
Cost: Labor $46/hr with CUFS number
Director: Tom Stefanek ................................................................. 612.625.9573
........................................................................................................... Email: stefa004@umn.edu

Histology and Microscopy Core
(Lillehei Heart Institute) ............................................. www.med.umn.edu/lhi/CoreFacilities/HistoCore
Services:
• Tissue fixation, decalcification, cryoprotection
• Cryo-embedding and sectioning
• Paraffin processing, embedding, and sectioning
• Assistance with immunohistochemistry
• in situ hybridization

Access: Open
Cost: Fee for service
Email or call the lab for current rates and full list of services: lhihisto@umn.edu
Contact Person: Jennifer Fricton ................................................. 612.626.3090
........................................................................................................... Email: fricton@umn.edu

Minnesota Super Computing Institute ........................................... www.msi.umn.edu/services/internal
Services: · MSI provides access to High Performance Computing (HPC), storage, and visualization resources for the academic community at the University of Minnesota campuses. In addition, it also provides a broad array of related services in support of the research needs of University faculty.

Access: Open
Cost: Rates are negotiated based on the scope of the project. Fees will be charged when a project:
• Involves 10% or more of consultant time for a month or more
• Involves less than 10% of consultant time for more than three months

Contact: Email intproj@msi.umn.edu to contact a consultant.

Molecular and Cellular Therapeutics Facility ..................................... www.ahc.umn.edu/mmct
(Academic Health Center)
Services: Production of clinical grade vectors for clinical trials
As a core infrastructure service provider, MCT supports translational research by facilitating the development and manufacturing of novel Phase I-III biotherapeutic products and active pharmaceutical ingredients in compliance with FDA’s good manufacturing practices. Its diverse product base and extensive manufacturing capabilities has lead to partnerships across multiple departments and divisions including (e.g., Pharmacy, Medicine, Surgery, Pediatrics, Cardiology, Neurology, and Hematology Oncology) as well as external institutions. MCT client base is maintained through continued commitment to excellence and its core competencies and services including: quality assurance and regulatory oversight, facility and inventory management, product development and project cost accounting. MCT promotes an effective organizational culture responsive to change and emerging technologies such as regenerative medicine, small molecule vaccines and xenotransplantation.

Access: Open
Cost: Negotiated
Scientific/Medical Director: David McKenna ........................................ 624-5736
........................................................................................................... E-mail: mcken020@umn.edu
Mouse Genetics Laboratory ........................................... www.cancer.umn.edu/research/cores/mousegen
(Masonic Cancer Center)

Services:
- SPF Transgenic mouse production by pronuclear injection
  Please download the Transgenic Policies of the MGL (PDF).
- Knockout mouse production by blastocyst injection.
  Please download the Embryonic Stem Cell/Chimeric Mouse Production Policies of the Mouse Genetics Laboratory (MGL) (PDF).

Specialized Services:
- SPF rederivation of conventional mouse lines
- Cryopreservation
- In vitro fertilization
- Specialized services

Information on each of our services can be found by downloading Specialized Service Policies of the MGL (PDF).

Request for Service forms available on the web.

Access: Open
Cost: Rates and fees are currently being revised.

Co-Directors: David Largaespada .................................................. 626-4979
Anindya Bagchi ................................................................. 625-2132

Coordinator: Sandra Horn .................................................. 626-5825

Pathology-Histology Services
(UMMC-Fairview)

Services:
- Tissue and block processing
- Slide preparation and staining
- Immunohistochemical, ISH and Special stains processing
- Will work up additional services according to need.

Access: Open
Cost: Fee for service; cost depends on complexity and expense of procedures

Contact: Pamela Horge .................................................. 273-2884

Manager: Chris Senn .................................................. 273-4920

Research Animal Resources ........................................... www.ahc.umn.edu/rar

Services:
- Animal attainment, transport, standard care
- Facilities for animal necropsy and disease diagnostics
- Veterinary services
- Housing: Standard and SPF (separate corridors, restricted access, new-animal quarantine, separate staff, separate showers, separate cage washers, cage changes in laminar flow hood, micro-isolator (hepa filter) housing.
- Available extras include: autoclaving (isolator, food, bedding, water), gown/booties/etc, more extensive pathogen testing.

Access: Open
Cost: Fee for service, contact RAR for specifics
RAR/Vet Services ........................................................................................................ 624-9100
Business Office (Billing and Animal Ordering) ......................................................... 624-6169
Diagnostic Laboratory ............................................................................................ 624-3961
Director: Cynthia Gillett .......................................................................................... 624-4625
............................................................................................................................ E-mail: gille002@umn.edu

**Translational Cell Therapy**
(Masonic Cancer Center) ...................................................................................... www.cancer.umn.edu/page/cores
Services: · Provides immune monitoring assays and assistance with the scale-up and transfer of cell processing methods from the basic research laboratory to the clinical cell therapy laboratory.
Access: Open with priority to CC members, IRB approval letter required
Cost: Fee for service
Coordinator: Julie Curtsinger .................................................................................. 625-6955
............................................................................................................................... E-mail: curts001@umn.edu
Director: Jeff Miller ................................................................................................ 625-7409
............................................................................................................................ E-mail: mille011@umn.edu

**X-ray Irradiator** (Center for Immunology) .......................................................... www.immunology.umn.edu/sharedresources/irradiator
Services: · The RS 2000 (http://www.radsoure.com/products/products.php?id=rs2000) is the non-isotope alternative to radioactive source equipment for research irradiation applications. This system is powerful and flexible enough to assist with biological studies in cancer, bio-technology and selected institutional work including:
  • Human Genome
  • Myeloablation
  • Stem Cell Research
  • Small animal work
  • Feeder cell production
Access: Open
Cost: $10.28/15 minutes
Contact Person: Debra Lins .................................................................................. 612.626.2476
............................................................................................................................ E-mail: benso010@umn.edu
Other Helpful Resources

U of MN Bio-Medical Library ................................................................. hsl.lib.umn.edu/biomed

Services:
- Borrowing materials
- Computing services
- Copying and Printing
- Instruction services
- Interlibrary loan
- Library course page
- Reference services
- Request materials
- Reserves

Access: Open
Location: ....................................................................................................................... Diehl Hall
General information number: ...................................................................................... 626-4045
...................................................................................................................... Email: medref@umn.edu

Office of Information Technology Consultation Services
.............................................................................................................. www.oit.umn.edu/consultation-services

Services: Consultants are available to help faculty, staff, and students, without charge, identify and plan how to effectively apply digital technologies in support of University research, teaching, engagement, administrative, and business needs.

Contact: Consultants are available by appointment. Contact dmc@umn.edu to arrange a consultation. A consultant will respond to your request typically within a matter of just a few hours, but certainly within 48 hours. For urgent technology issues, contact the Technology Help (1-HELP) staff.

Informative Websites

Academic Health Center
All about the AHC at the U of MN, with links to AHC offices and colleges, funding opportunities, Minnesota Medical Foundation, and other health resources
www.health.umn.edu

Medical School Departments
Links to departments in the U of MN Medical School
www.med.umn.edu

Department of Medicine Research Administrative Center
Provides resources for grant applications, including support staff, forms and templates, helpful guides, policies, and training opportunities
www.med.umn.edu/domcenter/researchgrantsmanagement

Sponsored Projects Administration (SPA)
Provides research tools, including forms and rates, policies and procedures, sponsor-required information, electronic tools, research compliance, and research funding
www.ospa.umn.edu
Research Resource Directory
Links to University of Minnesota resources - services, facilities, and equipment available to provide support for the diverse range of research communities across the University system.
www.research.umn.edu/advance/resources

Institutional Review Board
Reviews research projects which involve human subjects
www.irb.umn.edu

Institutional Animal Care and Use Committee
Guide for research projects involving animal subjects
research.umn.edu/iacuc

Institutional Biosafety Committee
Oversight of all teaching and research activities involving:
- Recombinant DNA;
- Artificial Gene Transfer;
- Infectious Agents (bacteria, viruses, protozoans, fungi, etc.);
- Biologically Derived Toxins
research.umn.edu/ibc

American Association for the Advancement of Science (AAAS)
Source of the latest developments in science
http://www.aaas.org

Association of American Medical Colleges
Articles with the latest medical news including government issues. Listing of medical schools, organizations, teaching hospitals and other medical groups and councils
www.aamc.org
Any additions, suggestions, or questions may be emailed to Lola Blackledge in the Department of Medicine Research Administrative Center at black060@umn.edu (Rev. 11/11)