

A background image of a laboratory setting featuring a microscope. The microscope's objective lenses are prominent, with labels such as '20X/0.45' and '50X/0.85' visible. The scene is brightly lit, creating a clean and professional atmosphere.

Massachusetts Core Facilities Resource

Centralized shared research resources that provide access to instruments, technologies, services, as well as expert consultation and other services to scientific and clinical investigators in academia and industry.



MassBio

MASSACHUSETTS BIOTECHNOLOGY COUNCIL

Massachusetts Life Sciences Core Facilities & Services

Control-click on facility name to visit web sites for detailed services and contact information.



Name	Web Site	Description
Baystate Health Epidemiology and Biostatistics Core	https://www.baystatehealth.org/education-research/research/services-facilities/epidemiology-biostatistics-core	The Epidemiology and Biostatistics Research Core (EBRC) supports Baystate faculty, fellows and residents in clinical research and research education. The EBRC has a team of epidemiologists, statisticians, and a data scientist with Masters or PhD-level training who have broad expertise in research methods, data analysis, and scientific writing. They have a total of more than 70 years' experience in clinical research, have published several hundred articles in major scientific journals, and handle more than 200 projects a year.
Beth Israel Deaconess Medical Center Core Facilities	https://www.bidmc.org/research/core-facilities	Leading-edge core facilities provide service to BIDMC labs as well as to surrounding academic research institutions and private corporations. Making use of sophisticated technologies and equipment, these technologically advanced facilities provide investigators with access to centralized expertise and service.
Boston Children's Hospital Scientific Core Facilities	http://www.childrenshospital.org/research/cores	<p>Boston Children's Hospital scientific core facilities provide a broad array of specialized scientific services and resources to the research community. Children's Cores use state-of-the-art equipment and technology and employ highly-trained personnel to execute procedures for investigators to help expedite research.</p> <p>Because these resources are not dedicated to the work of a single researcher, group or department, Cores offer access to new research services and costly instrumentation for a wide variety of investigators, thereby avoiding duplication of expense and effort. This also ensures quality control and efficiency in coordinating services for multiple users. Partnering with BCH, the Harvard Catalyst has created this searchable database of core facilities within the Longwood Medical Area, now powered by the eagle-i resource discovery platform. The cores are indexed by institution and by service category; the catalog is also searchable by keyword. The database will grow as more cores are established and additional services are identified.</p>
Boston Biomedical Research Institute Core Facilities	www.bbru.org	Core Facilities include: Analytical Ultracentrifuges Calorimeters Mass Spectrometer X-Ray Crystallography Facility Electron Microscope Confocal Microscope Biacore 3000

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Boston University Alzheimer's Disease Core Center (BU) ADCC	http://grantome.com/grant/NIH/P30-AG013846-04S1	The purpose of the Boston University Alzheimer's Disease Core Center (BU) ADCC is to promote research concerning Alzheimer's Disease (AD) at Boston University and throughout the country by providing information and materials from well characterized and unique patient and caregiver populations: the ambulatory and late-stage suburban population at the Bedford VA Medical Center and the racially, ethnically, and culturally diverse poor urban population served by the Boston University Hospital Home Medical Service (HMS). All patients enrolled in the Clinical Core will be assessed every six months with a comprehensive neuropsychological test battery. A neurological examination will be performed annually and blood will be obtained to isolate DNA for molecular genetic studies and stored. A detailed family history will be obtained and caregivers will be assessed yearly. The database will allow for longitudinal comparisons and the ability to correlate the progression of AD with its impact on caregivers. The Neuropathology Core will establish accurate pathological diagnoses, rigorous documentation and quantitation of neuropathological changes, produce endothelial cell lines, and collect, store and disburse postmortem tissues. The Education and Information Transfer Core will provide a comprehensive program of AD research development, dissemination, and utilization for professional caregivers with respect to symptom management. The BU ADCC will fund pilot projects to promote new AD research and foster the development of new AD investigators. For more details visit the web site.
Boston University, Good Manufacturing Practice (GMP) Core Facility,	https://www.bumc.bu.edu/busm/research/cores/gmp-core-facility/	The Good Manufacturing Practice (GMP) Core Facility located within the Boston University Medical Center was constructed in 2013 and is now available for use by the broader Boston University research community. The facility is comprised of three (3) primary spatial components including the actual GMP Lab (237 square feet), Ante Rm. (45 square feet) and the Vestibule (99 square feet). It is a qualified facility for the development and processing of clinical grade stem cells from adult tissues and related materials for clinical trials and for potential therapeutic use. It is also suitable for vector production, material repackaging, and general support. All areas of the production facility have controlled access and are designed and maintained to a high standard of regulatory compliance and environmental quality. The design ensures orderly flow of raw materials, processes, and personnel. Critical facility parameters, critical controls and laboratory equipment are validated and are continuously monitored.
Boston University School of Medicine Cores, Facilities & Services	http://www.bumc.bu.edu/busm/research/cores/	This site provides you with information and links to research cores, facilities and services, available on the Boston University Medical Campus. Some of these cores are institutional research cores, and are available on a fee-for-service basis to all investigators, both within and outside Boston University. Other types are core services supported by individual departments, specific grants, or groups of investigators, and may be available to other University researchers as fee-for-service, or as a collaboration. The table below allows you to navigate to pages for specific cores, or services with information on capabilities, contacts, costs, and scheduling.

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Broad Institute Genomic Services	http://genomics.broadinstitute.org/worki-ng-with-us	We provide access to the world's most advanced sequencing facility, no matter how large or small your organization is or where you are located in the world. Our commitment is to provide a simple, seamless experience. We process your samples using the exact same facilities and high-quality process built for and by Broad Institute researchers. With over 20 years of experience in the management of advanced technologies, applications development, data management, and high-throughput processes relating to sample handling, genotyping, gene expression, and genome sequencing, we produce data trusted by the world's leading scientists.
Cell Culture Core Facility Tufts Medical Center	https://www.tuftsmedicalcenter.org/Research-Clinical-Trials/Institutes-Centers-Labs/Molecular-Cardiology-Research-Institute/Core-Facilities/Cell-Culture-Core-Facility	The MCRI Cell Culture Core Facility provides a variety of services and maintains a large cell line repository. Some of the services provided by the core are: isolation, maintenance and cryopreservation of cells, media preparation, equipment maintenance and minor repairs, training in aseptic and cell culture techniques, and consultation. The core has the ability to establish new primary cell lines from a variety of tissue, especially heart and vascular smooth muscle cells (SMC) and endothelial cells (EC) from human, mouse and other species. Cell proliferation assays, immortalization of cells, expansion of cell lines, establishment of transient and stable cloned cell lines, and preparation of cells for experiments are also provided.
Dana-Farber Cancer Institute	http://www.dana-farber.org/research/core-facilities/	Dana-Farber Cancer Institute maintains a variety of resources to support the research and educational activities of Dana-Farber faculty. These core facilities, shared resources, and integrative research centers offer research services to the Boston research community, including academic institutions and industry.
Dana-Farber Harvard Cancer Center	http://www.dfhcc.harvard.edu/research/core-facilities/	The DF/HCC Core Facilities are central or "shared" laboratories that provide members critical services to advance their research. Each of the cores is capable of performing a specific set of experimental functions that enable DF/HCC investigators to perform experiments faster and more accurately. The core facilities are a cornerstone of DF/HCC, they promote cross-institutional collaboration and the effective translation of discoveries into novel approaches to cancer research.

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Dana-Farber Connell and O'Reilly Families Cell Manipulation Core	www.dfhcc.harvard.edu/core-facilities/cell-manipulation/	<p>The Connell and O'Reilly Families Cell Manipulation Core Facility (CMCF) assists DF/HCC members in developing new cell-based therapies for patients with cancer who are enrolled in novel therapeutic clinical research protocols. It also supports clinical research studies designed to evaluate the safety and efficacy of these novel treatments.</p> <p>Key Services Core services include processing of hematopoietic stem cells for autologous or allogeneic transplantation, generation of tumor vaccines using genetic or culture mediated modification of tumor cells, and preparation of immune cell populations for adoptive cellular therapy. The core also collects and stores follow-up blood and bone marrow samples from subjects treated on protocols that the core produced components for, thus providing an additional service to clinical investigators beyond what cell manufacturing laboratories provide, ensuring that all research objectives of clinical protocols are met.</p> <p>Pricing varies; contact the Core for details.</p>
Forsyth Core Services	https://forsyth.org/core-services	<p>Forsyth maintains specialty Core Services that provide specialized equipment and expertise for its investigators and, on a fee-for-service basis, to researchers from other institutions. Visit the specific web pages below and/or download additional details about technology, services and scheduling.</p>
Harvard University Genome Modification Facility (GMF)	http://gmf.fas.harvard.edu/	<p>The Genome Modification Facility (GMF) at Harvard University provides transgenic, gene targeting, and other services to investigators of Harvard University and its affiliated institutions, as well as to investigators within the US and abroad. The GMF performs microinjections of CRISPR/Cas9 and gRNA as well as DNA donors into mouse zygotes for gene editing, gene deletion or insertion projects. We also perform microinjections of DNA into fertilized embryos to generate transgenic mice, DNA transfection into ES cells for the creation of recombinant ES cell clones, injection of gene-targeted ES cells into host blastocysts to generate gene knock-out or knock-in mice, teratoma formation studies, and other related ES cell-based services. Other services include cryopreservation of mouse sperm and embryos, in vitro fertilization, recovery of cryopreserved mouse sperm and embryos, rederivation of pathogen free mouse lines, and derivation ES cell lines from wild type and mutant mice with a variety of genetic backgrounds. We can also customize services as requested to support development of animal models of human diseases. For more details, please see http://gmf.fas.harvard.edu/.</p>
Harvard Catalyst Health Communication Core	https://cores.catalyst.harvard.edu/?uri_id=0000012e-6e60-8691-55da-381e80000000	<p>The Health Communication Core offers a full range of creative communication services to support evidence-based recruitment and retention of study participants and intervention research. HCC serves researchers from diverse disciplines who need websites, logos, brochures, social media campaigns, publications, and interactive media targeted to the needs and preferences of specific audiences.</p>

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Massachusetts Alzheimer's Disease Research Center	https://www.madrc.org/research-resources	The structure of the Massachusetts ADRC is comprised of six Cores: Administrative; Clinical; Data Management & Statistical; Neuropathology; Outreach, Recruitment and Education; Neuroimaging Cores. Each Core serves a unique function for researchers and staff personnel. Yet, each Core, whether it is a shared central laboratory, resource or service, also work in concert with all other Cores to contribute to the overall success of our Center's mission. All of the Massachusetts ADRC's Cores are led by accomplished scientists who also serve on the faculty of the Harvard Medical School.
Massachusetts Next Generation Sequencing Providers	http://www.ngsmassachusetts.com/	If you are looking for next-generation sequencing service providers, this website compiles NGS cores located in Massachusetts offering either Illumina, Ion PGM or Ion Proton sequencing services to outside clients. These services include NGS library preparation, sequencing and bioinformatics analysis.
MIT Core Facilities and Service Centers	https://biology.mit.edu/faculty-and-research/core-facilities/	MIT, Koch Institute, Whitehead; this website provides a comprehensive listing of various Core Facilities http://research.mit.edu/research-resources/core-facilities-and-service-centers .
Northeastern University	https://web.northeastern.edu/annabi/resources/facilities/	In addition to our lab, we have access to a variety of other resources available for research at Northeastern University. Professor Annabi is a faculty member at Biomedical Innovative Research Center (BIRC) at Harvard Medical School (HMS), so we have access to the facilities that have been gathered by the BIRC, including a 3D bioprinter and animal research facilities.
Northeastern University NMR Core Facility	https://web.northeastern.edu/nmr/	Northeastern University maintains four NMR spectrometers for teaching and sponsored research. We also offer professional NMR services for non-Northeastern users from the local area.
Partners Research Core Facilities (Includes MGH, Brigham & Women's and McLean Hospital, Mass Eye and Ear Institute and Ragon Core Facilities)	https://researchcores.partners.org/cores https://researchcores.partners.org/cores?view=list	Research core facilities at Partners HealthCare bring state-of-the-art instrumentation, methodologies and expertise crucial to the promotion of research on our campuses and beyond. Partners Healthcare are home to over ninety biomedical research and clinical facilities and technical specialists affiliated with some of the world's most respected research Institutions. Partners healthcare makes its research equipment, investigators' expertise and technical knowledge available to the greater Boston biomedical research community, including start-ups and incubator labs. We offer comprehensive services, or a la carte access related to science, grants management or compliance. For a full list of our services please visit our website: https://researchcores.partners.org/
Partners: Mass Eye and Ear Institute (MEEI) / Schepens Eye Research Institute	https://www.masseyeandear.org/research/core-facilities	The goal of the core facilities is to enhance the productivity of individual research programs, create opportunities for new research endeavors, and promote collaborative efforts in identifying the molecular, cellular and genetic bases of biological and disease processes.

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Partners: Ragon Institute Imaging Core, Microscopy Division	http://www.ragoninstitute.org/research/services/microscopy/	The mission of Ragon Institute Imaging Core, Microscopy Division is to bring the latest imaging modalities and technology to bear on fundamental molecular and cell biological questions pertaining to infectious diseases. The core also serves as a comprehensive resource for addressing a variety of imaging needs including consultation on topics related to advanced imaging applications, experimental design, image analysis and sample preparation. As an MGH Core Facility, the Ragon Institute Imaging Core also serves the greater MGH community. Since the Ragon Institute is also a collaboration between MGH, Harvard, and MIT, so too does the facility welcome members of the MIT and Harvard communities, as well as from other research institutions in the greater Boston area. The facility presently encompasses five imaging systems, including a Zeiss LSM510 laser scanning confocal microscope and a fully automated Zeiss Axio Observer microscope, both housed in BL2+ compliant facilities. These imaging systems are therefore fully equipped for both fixed and live cell, time-lapse imaging. In addition, the facility has two slide scanning systems (MIRAX MIDI and TissueFAXS) for high speed automated imaging and cellular screening of tissue sections and cultured cells on glass slides. An additional manual fluorescence/phase contrast microscope is available for more routine examination and imaging of various types of samples. Microscopy users also have access to our ImageStreamX MkII from Amnis that is part of the Ragon Institute Flow Cytometry section of the core. With this instrument, users can perform rapid imaging flow cytometry of large cell populations in solution. The Microscopy Section is located on the 8th floor of 400 Technology Square at MIT in Cambridge, in rooms 810A (BL2+ access) and 812 (BL1).
Tufts University	https://viceprovost.tufts.edu/core-facilities/	A core facility is a facility that performs specific technical services, primarily for the internal research operations of the University and affiliated Medical Centers, and charges users for its services, or are free to investigators as they are paid for by another funding source. The Health Sciences Campus provides support for researchers through a variety of instrumentation and core services that allow scientists to access the latest technology. Many of these cores are staffed by support personnel that may assist with use of instruments or help design experiments.
UMass Amherst Core Research Laboratories and Facilities	https://www.umass.edu/ials/core-facilities	UMass Amherst has 30 new core facilities with capabilities including metal 3D printing, roll-to-roll fabrication, inductively coupled plasma mass spec, analytical ultra centrifugation, x-ray diffractometry, super resolution microscopy, whole-room calorimetry, infrared motion analysis, sleep and behavioral observation labs, and a 3 Tesla human MRI/S. These facilities enable internal and external users to enhance their R&D capabilities, address basic and translational questions, deliver technologies and product candidates more rapidly, receive advanced training, and become more competitive in obtaining state, federal, foundation, and private funding.
UMass Boston	https://www.umb.edu/orsp/research_core_facilities	UMass Boston research core facilities currently include Vivarium and Genomics Cores. Our program will be soon extending to include: Imaging, Mass Spectroscopy, Fabrication, Flow Cytometry, and Infrared/Raman Spectroscopy. With easy access from the north and south shores of Massachusetts, UMass Boston is close to city incubators, universities and Fortune 500 companies. Our researchers specialize in biomedical, health, life and brain sciences.

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UMass Dartmouth	https://www.umassd.edu/spa/	UMass Dartmouth offers instrumentations within our Environmental Chemistry, Biomanufacturing and Mechanical Prototyping Lab at the Center for Innovation & Entrepreneurship. Our Chemistry and Biochemistry Departments offer a multitude of sophisticated analytical and biomolecular instruments. We are in the process of reviewing our research centers to broaden our core offerings.
UMass Lowell	https://www.uml.edu/Research/CRF/	Since inception in 2013, nearly 800 researchers have used our fee-for-service facilities. UMass Lowell research core facilities program, branded as Core Research Facilities (CRF), was created with users in mind. We have a simple streamlined process to provide quick and easy access to labs. Our professional staff provides hands-on training and services. We have an integrated on-line reservation system that includes a searchable database of resources. State-of-the art instruments and resources are available to academic, government and industry researchers. We support research in the fields of bioengineering, biomaterials, chemistry, green chemistry, material sciences, nanotech and nanofabrication, radiation sciences, robotics and much more.
UMass Medical School	https://www.umassmed.edu/research/core/	UMass Medical School spearheaded the core research model supported by NIH and NSF. UMMS offers 45 facilities including the second largest Sequencing facility in New England, are host to the Northeast PacBio Hub, and are one of 5 Centers across the country for Mouse Metabolic Phenotyping. Our new highly publicized cores include the Massachusetts Center for High Resolution Electron Cryo Microscopy.
USARIEM - US Army Research Institute of Environmental Medicine	http://www.usariem.army.mil/index.cfm/about/locations	USARIEM is co-located at the Soldier Systems Center in Natick, Massachusetts. A short distance from Boston, the institute offers researchers its own unique facilities and is in close proximity to many of the finest universities.
Worcester Polytechnic Institute Shared Facilities	https://www.wpi.edu/research/support/shared-facilities/life-sciences-bioengineering-center	WPI offers researchers a multitude of support, including software, hardware, and consulting services that are on par with some of the greatest research universities in the world. The supportive, well-grounded infrastructure allows researchers to hit the ground running without delays from startup times or transitions from previous labs or universities. We've included just a sample of the resources available to researchers here.

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Rhode Island, New Hampshire, Maine Cores		
CoresRI	http://www.coresri.org/centers	A directory of core research facilities, services, and instrumentation in Rhode Island.
Maine Medical Center Research Institute	https://mmcri.org/ns/?page_id=176	For there to be successful medical research, an institution must have top core lab resources. Maine Medical Center Research Institute (MMCRI) has a series of shared resources and core facilities dedicated to providing the latest equipment and knowledge necessary to assist researchers in their work. Many of these shared resources and services are available to the outside community.
UNH Bioinformatics Core facility	http://nhinbre.org/bioinformatics-genomics/	The NH-INBRE program supports the UNH Bioinformatics Core facility that provides bioinformatics services to the NH-INBRE community. Dr. Kelley Thomas leads the Bioinformatics Core facility at UNH. This facility provides NH-INBRE participants with access to outstanding, state-of-the-art computing for genomic analysis, on site training modules in genomics and bioinformatics, deep DNA sequencing, gene expression, and many other important biomedical research tools. Some of these resources are explained in more detail under the Bioinformatics subpages here on the NH-INBRE website .
University of New England, Maine	https://www.une.edu/research/core-facilities	<p>The Core Research Facilities and Services at the University of New England were established by the Office of Research and Scholarship to provide the University community and other scientific institutions with access to state-of-the-art equipment and training. The purpose of the Cores is to make technology and expertise available to all students, faculty, staff and external researchers. Our highly trained facility managers help expedite the research process in a variety of ways. The Cores are shared facilities categorized into centralized labs organized by areas of technology and scientific study. UNE currently hosts the following core facilities:</p> <ul style="list-style-type: none">- Histology & Imaging Core (HI-C)- Microscope Core Facility- Behavioral Core <p>Please view the individual facilities' sites for more information. Contact the Office of Research and Scholarship with general questions.</p>

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For corrections and additions to this list, please e-mail: Chris Lindgren, Director Programming, MassBio, chris.lindgren@massbio.org. Thank you.