

Brown BioMed Core Facilities

Bioimaging Facility



- **New!** 2 Slide Scanner Microscopes
- Olympus VS200 (SFH & LMM locations)
- Confocal Microscopes
Olympus FV3000,
Zeiss LSM 800, LSM 880, LSM 710
- Fluorescence Microscopes
2 - Nikon Ti2-E Fluorescence for high-content imaging
2 - Zeiss Axiovert 200M Fluorescence
- High-Content Screening System
PerkinElmer Opera Phenix
- Multiphoton Microscope
Olympus FV-1000-MPE Multiphoton
- Electron Microscopes (SEM & TEM)
Thermo Apreo VS Scanning Electron Microscope
Philips 410 Transmission Electron Microscope
- SEM and TEM Sample Prep
- Sample Preparation Equipment
Leica EM UC7 Ultramicrotome
Diatome DKS Diamond Knife Set
Emitech K550 Sputter Coater
Ladd Research Industries Critical Point Dryer
Emitech K100X Glow Discharge Unit

Genomics Core



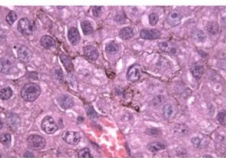
- **New!** Nanostring – nCounter Sprint Profiler
- **New!** NanoString – GeoMx Digital Spatial Profiler
- **New!** 2 - QuantStudio 6-Pro Real-Time qPCR Systems
- Bio-Rad QX200 Digital PCR System
- Illumina NextSeq 550 Sequencer
- Agilent 2100 Bioanalyzer and Fragment Analyzer
- Affymetrix Gene Chip System
- GenePix4000B Microarray Scanner
- LiCor Odyssey Clx Infrared Fluorescent Imaging System
- BioTek Synergy H1 Multimode Plate Reader
- Cytation 5 Multimode Plate Reader and Cell Imager
- Covaris S220 Focused-Ultrasonicator
- Life Technologies Automated Countess Cell Counter
- Thermo Nanodrop One Spectrophotometer
- Beckman Coulter Optima Max Ultracentrifuge

Transgenic and Gene Targeting Facility



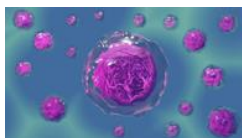
- CRISPR/Cas9 Services
Guide RNA Validation
Donor Construction/Preparation
Founder Genotyping
Germline Transmission
- Embryo Microinjection / Electroporation
- Cryopreservation/Sperm and Embryo
- Mouse Line Cryo Recovery / Sperm and Embryo
- In Vitro Fertilization (IVF)
Fresh or Frozen sperm
IVF plus Sperm or Embryo Cryo
Rederivation
Colony scale-up
- Embryonic Stem (ES) Cell Projects
Electroporation
Clone Selection and Archive
De Novo Generation of ESC Lines
ES Injection to generate transgenic mice
Germline Transmission
- Random Integration Transgenesis
- Genotyping
- Cryo Storage

Molecular Pathology Core



- Tissue Processing and Embedding
Paraffin – Automated or Manual
Plastic Processing and Embedding
Frozen Tissue-Embedding in OCT
TEM Processing and Embedding
SEM Processing
Serial Block Face Imaging Sample
- Staining
Hematoxylin and Eosin (H&E)
Special Stains
- Sectioning
Paraffin
Plastic
Frozen/Cryostat
Ultrathin
Vibratome
Serial and Step Sectioning
- Immunolabeling
Immunohistochemistry
Immunofluorescence

Flow Cytometry & Cell Sorter Facility



- BD FACSAria IIIu Flow Cytometer and Cell Sorter
- BD FACS Celesta Flow Cytometer
- Cytex Aurora Flow Cytometer

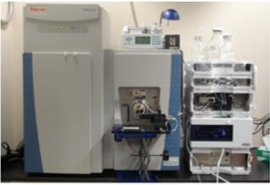
Brown BioMed Core Facilities

Structural Biology Facility



- Nuclear Magnetic Resonance (NMR) Spectrometers
 - Bruker 850 MHz Avance III HD, with TCI Cryoprobe
 - Bruker NEO 600 MHz Spectrometer, with TCI Cryoprobe
 - Bruker AVANCE II 500 MHz Spectrometer
- X-ray Crystallography
 - Rigaku MicroMax-003 X-ray Generator and Saturn 944HG Detector

Proteomics Facility



- **New!** Nanotemper Microscale Monolith X with Spectral Shift and MST
- Thermo Scientific Q Exactive Plus Hybrid Quadrupole-Orbitrap Mass Spectrometer
- JASCO J-815 Circular Dichroism (CD) Spectrometer
- Microcal Isothermal Titration 200 (ITC)
- Microcal VP Differential Scanning (DSC)
- Horiba Jobin Yvon FluoroMax-4
- Thermo NanoDrop 8000

X-Ray Reconstruction of Moving Morphology (XROMM) Facility



- **New!** GE Lightspeed 16 Slice CT Scanner
- Animage Fidex Veterinary Computed Tomography (CT) Scanner
- SkyScan 1276 in vivo MicroCT Scanner System
- XROMM Custom Designed Biplanar Videoradiography System

Carney Institute Magnetic Resonance Imaging (MRI)



- Siemens 3 Tesla PRISMA Scanner

Drosophila Media Facility



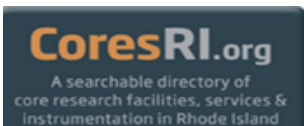
- 10ml Narrow Plastic Vials (100 vials/tray)
- 12ml Wide Plastic Vials (100 vials/tray)
- 40ml Plastic Bottles

Rhode Island Biobank



- 2 - Liquid Nitrogen Biospecimen Storage Systems
- 3 - Biospecimen Storage Freezer, -80 degrees
- 3 - Biospecimen Storage Refrigerators, 4 degrees

CoresRI



- A searchable directory of core research facilities, services and instrumentation in Rhode Island
- Searchable by Institution, Instrumentation, Service
- Links to Core Facility Websites, Contacts and Locations