

# The University of Florida Interdisciplinary Center for Biotechnology Research (UF|ICBR)

2033 MOWRY ROAD, GAINESVILLE, FL 32610 | 352.273.8030 | BIOTECH.UFL.EDU

**UF|ICBR**  
your pursuit is what drives us.  
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## Overview

Since 1987, UF|ICBR has been the University of Florida's premier shared-service auxiliary center for biomolecular research support. The mission of UF|ICBR is to champion and enable scientific discovery and innovation by providing access to world-class biotechnology expertise and instrumentation. The ICBR is a centralized gateway to biotechnology expertise and cutting edge-technology for UF Faculty, staff, trainees, and students conducting life science research on campus.

Strategically located in the CGRC and MBI, the UF|ICBR offers easy access more than 400 different services in 7 shared resource laboratories. Dedicated to advancing discoveries in the life sciences, and with expertise and cutting-edge instrumentation, the ICBR remains the first choice for the UF research community.



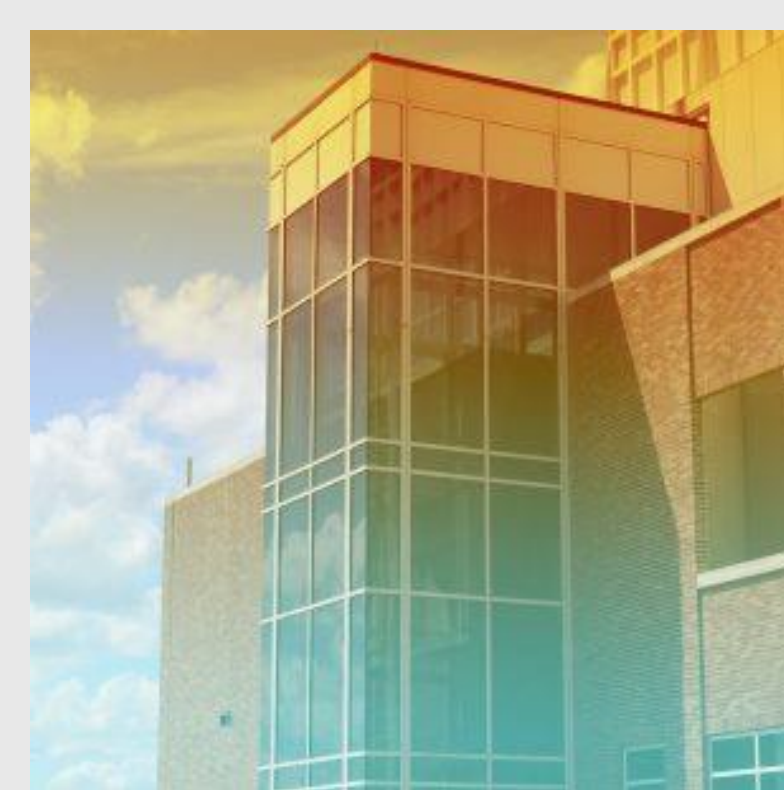
## Featured Services

- Single cell RNA-Seq & spatial transcriptomics
- Long and short read DNA library construction and sequencing
- Whole genome sequencing, exome sequencing, 16S & rDNA metagenomic sequencing
- RNA-Seq, ChIP-Seq, ATAC-Seq, & DNA methylation analysis
- Flow cytometry, cell sorting, nanoparticle/exosome analysis & optical microscopy
- MALDI MS based microbe identification
- Quantitative proteomics (LFQ, SILAC, iTRAQ, TMT) & metabolite analysis
- CryoEM, & Scanning Electron Microscopy
- Hybridoma antibody production & western blotting
- Live cell imaging & analysis

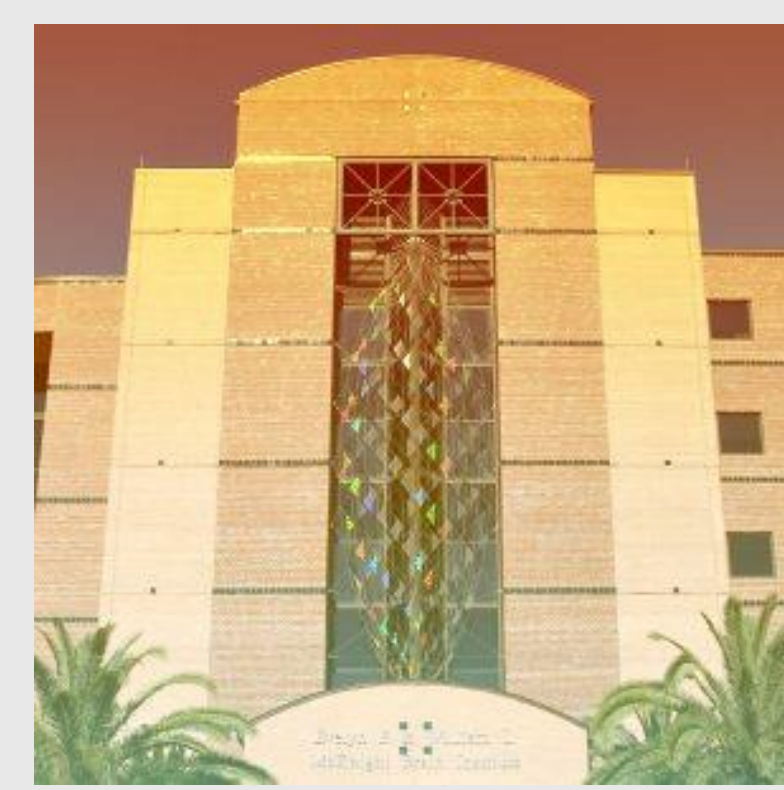
## Featured Instrumentation

- Illumina NovaSeq X Plus, PacBio SEQUEL IIe & ONT PromethION Sequencers
- QIAcuity Digital PCR System & 10X Genomics Chromium X
- Bruker tims-TOF fleX, ThermoFisher Orbitrap Fusion, Q ExactivePlus Hybrid Quadrupole-Orbitrap, TSQ Altis Triple Quadrupole
- Bruker MALDI Biotyper® Sirius
- Luminex FLEXMAP 3D® System
- GLACIOS 2 CryoTEM & Talos L120C G2 120 kV TEMs
- Hitachi SU5000 FEG Variable Pressure SEM
- Accuri C6, SP6800 Spectral, Cytek Aurora Spectral, Fortessa, CytoFLEX LX, Canto, Symphony A3, & Symphony S6, Fusion, & SH800 sorters
- NanoSight NS300 & NanoFCM
- Keyence, IVIS Spectrum, and Stellaris 8 Confocal Microscope
- Sartorius Octet QKe Biolayer Interferometer & BioTek Cytation 5 Imaging Microplate Reader

## Locations



Cancer & Genetics Research Complex  
(All UF | ICBR Cores)  
CGRC South Wing  
2033 Mowry Road  
Gainesville, FL 32610



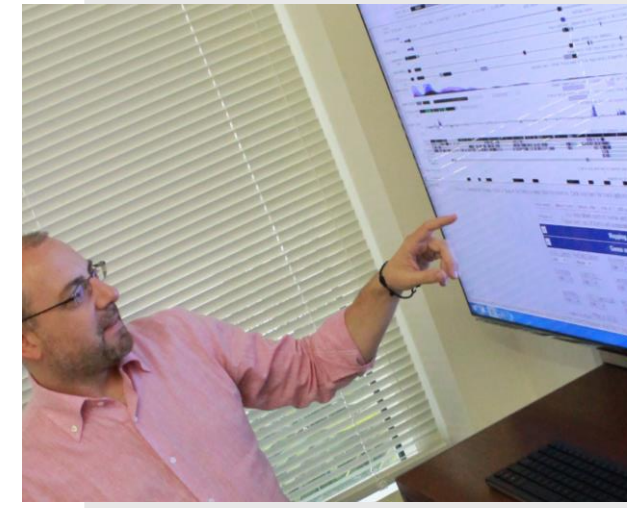
McKnight Brain Institute  
(Cytometry Satellite Location)  
MBI L3-160  
1149 Newell Drive  
Gainesville, FL 32610

## Bioinformatics

ICBR-Bioinformatics@ad.ufl.edu | 352.273.8049

ICBR Bioinformatics provides consultation and data analysis services of large-scale genomic data sets.

Specific services include:

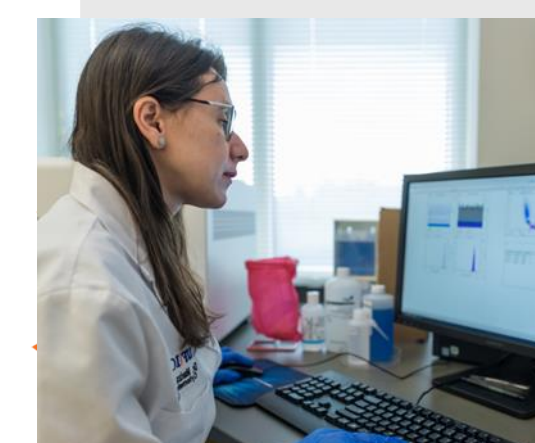


- RNA-Seq data analysis
- Single-cell RNASeq and Spatial transcriptome analysis
- Sequence variation analysis
- Epigenetic analysis (ChIP-Seq, ATAC-Seq)
- Metagenomics analysis
- Genome/Transcriptome assembly and annotation
- Customized data analysis and software development

## Cytometry

ICBR-Cytometry@ad.ufl.edu | 352.273.6032 (Cytometry and Nanoparticle) 352.392.1745 (Microscopy)

ICBR Cytometry provides easy access to cost-effective, cutting-edge cytometry, confocal and small particle instrumentation. Our comprehensive user training program allows for easy self-use of these instruments.



- Training in flow cytometry (both conventional and spectral analyzers and sorters), small particle analysis, in-vivo bioluminescent imaging, and confocal microscopy
- 24/7 access for self-service usage
- Staff-assisted sorting, including sorting for single cell RNA-Seq analysis
- Workshops in Flow Cytometry fundamentals
- Services provided at CGRC and MBI

## Electron Microscopy

ICBR-ElectronMicroscopy@ad.ufl.edu | 352.273.8547

ICBR Electron Microscopy provides expertise and instrumentation for conducting transmission and scanning Electron Microscopy. We offer support for sample prep and self-use instrument training.



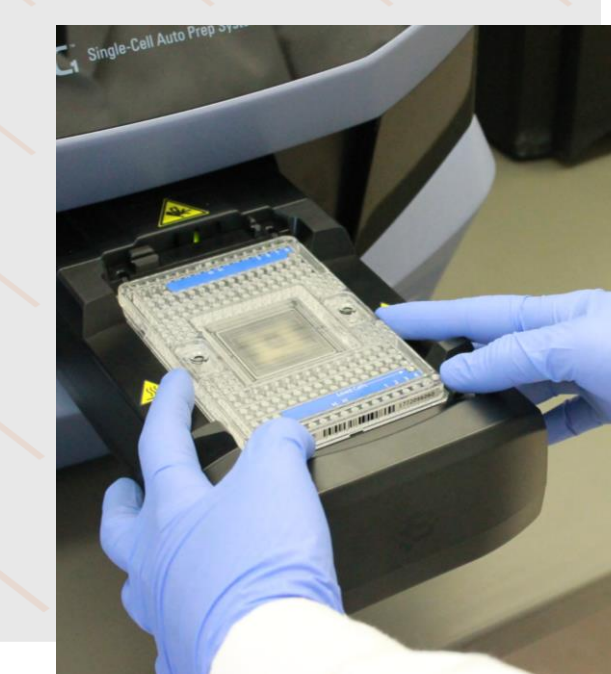
- Transmission and scanning electron microscopy
- Sample preparation
- High pressure freezing and freeze substitution sample services
- Cryo-TEM single particle examination
- Self-use training for microscopes sample preparation
- Cryo-SEM

## Gene Expression & Genotyping

ICBR-Genotyping@ad.ufl.edu | 352.273.8036

ICBR Gene Expression & Genotyping provides all aspects of RNA expression and genotyping analysis, including library generation for bulk and single cell RNASeq analysis, targeted RNA transcript analysis by ddPCR and spatial gene expression analysis.

- Spatial gene expression by 10x Visium CytAssist System
- scRNA-Seq library generation on 10X Genomics Chromium X
- RNA-Seq, exome sequence capture, and 16s rRNA library construction
- miRNA and long non-coding RNA analysis
- 5-plex ddPCR assay by Qiagen QIAcuity system
- GeneTitan Axiom Array analysis
- SNP genotyping by the CFX real-time PCR detection system
- Copy number variation by BioRad digital PCR system
- Drop off sample nucleic acid quality assessment



## Monoclonal Antibody

ICBR-MonoclonalAntibody@ad.ufl.edu | 352.273.8040

ICBR Monoclonal Antibody provides consultation, antibody production and characterization services for basic and applied research, instrumentation, and more.

- Mouse monoclonal & polyclonal Ab development
- Recombinant MAb production
- Antibody labeling (e.g., biotin, fluorescent molecules)
- Biotek Cytation 5: Imaging multimode plate reader for live Cell Imaging, Bioassays, AlphaLISA, Reporter Assays, TR-FRET
- Bruker MALDI Biotyper Sirius System for rapid Identification of bacteria, mycobacteria, fungi
- Sartorius Octet Qke System: BLI-binding kinetics, epitope binning, quantitation
- Protein gel electrophoresis (1D/2D) and western blots
- ELISA development
- Mammalian Cell Culture Techniques Workshop

## NextGen DNA Sequencing

ICBR-NextGenSeq@ad.ufl.edu | 352.273.8050

ICBR NextGen DNA Sequencing provides massively parallel, high-throughput sequencing services supporting a broad range of applications using short and long read technologies for targeted exon sequencing, bulk and single cell RNASeq, metagenomics, and more.

Sequencing:

- Illumina NovaSeq X Plus (high-throughput and high-plexity projects, any run configuration, partial lane flexibility)
- Illumina MiSeq (Standard v3/v2 runs, Micro and Nano flow cell runs)
- Illumina iSeq (shallow, pilot runs)
- PacBio SEQUEL IIe (Hi-Fi de novo assembly reads, isoform analysis, etc.)
- Oxford NanoPore PromethION-24 (Ultra-long reads for de novo assembly)
- Oxford NanoPore MinION (Ultra-long reads for de novo assembly of small genomes or pilot runs)

Library Construction Services for Major Applications:

- Illumina (WGBS, RRBS, 16S metagenomics, COVID-seq, Exome-seq)
- PacBio (large-insert genome, IsoSeq, Amplicon-seq, full-length 16S)
- Oxford NanoPore (full-length cDNA, Direct RNA-seq, COVID-seq & more)
- 10X Genomics (Single-cell: RNA-Seq, ATACseq, VDJ)
- Sample/Library QC: QUBIT, Covaris S220/E220, SAGE ELF, qPCR, TapeStation



## Proteomics & Mass Spectrometry

ICBR-Proteomics@ad.ufl.edu | 352.273.8060

ICBR Proteomics & Mass Spectrometry provides state-of-the-art proteomics and mass spectrometry analysis.

- MRM self service and training
- Luminex biomarker assay
- Protein identification
- Quantitative proteomics
- Post-translational modification analysis
- Liquid chromatography with UV/diode array
- Targeted metabolite analysis



## UF | ICBR Mission

To champion and enable scientific discovery and innovation throughout the University of Florida research community by providing access to world-class biotechnology expertise and instrumentation. UF | ICBR is committed to creating an enabling, welcoming, and creative environment for all.

**Free Consultations. Special UF Pricing.**  
**All on Campus.**

**Get Started Today**

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