

[umass.edu/ials/genomics](http://umass.edu/ials/genomics)

<p>Located on the 3<sup>rd</sup> floor in the Morrill Science Center, the Genomics Resource Laboratory (GRL) provides services and advanced instrumentation support for nucleic acid (DNA and RNA) analysis.</p>	<p>internal and external researchers, academic or industry based. Following an initial consultation, covering experimental parameters training and access is arranged through the director.</p>
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The GRL provides a suite of services to address your high-throughput next-generation sequencing (NGS), including solutions for sample processing such as nucleic-acid isolation, nucleic-acid quantitative and qualitative analysis, NGS library preparation, quantitative-PCR analysis, etc.

GRL provides sample processing and library preparation such as whole genome sequencing, shotgun metagenomics, metatranscriptomics, targeted amplicon sequencing, RNA-Seq, Single Cell Genomics, etc., to address genomics research projects.

The facility accepts samples and will perform requested analysis. We offer training to users to conduct experimentation for use on a fee for service basis to both

internal and external researchers,  
academic or industry based.  
Following an initial consultation,  
covering experimental parameters  
training and access is arranged  
through the director.

## ACCESS

To request access, training, or additional information please contact Ravi Ranjan at [ranjan@umass.edu](mailto:ranjan@umass.edu).

Our rates are competitive and tiered based on needs and usage. Visit our website at [umass.edu/ials/genomics](http://umass.edu/ials/genomics) for current listing.

## TRAINING

Training for new users consists of:

- lab safety training as mandated by UMass EH&S,
- operation of the instrument and associated software,
- use of data analysis software.

Once the training is complete, researchers may schedule their experiments through the director of the GRL (Ravi Ranjan) or online through CORUM at [corum.umass.edu](mailto:corum.umass.edu).

UMassAmherst | Core Facilities

Institute for Applied Life Sciences  
University of Massachusetts Amherst  
Life Science Laboratories  
240 Thatcher Road  
Amherst, MA 01003



**PARTNER WITH US!**

## Genomics Resource Inquiries

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# Genomics Resource Laboratory

**Institute for Applied Life Sciences  
University of Massachusetts Amherst**



State-of-the-Art  
Instrumentation Support  
for Next-Generation  
Sequencing Services

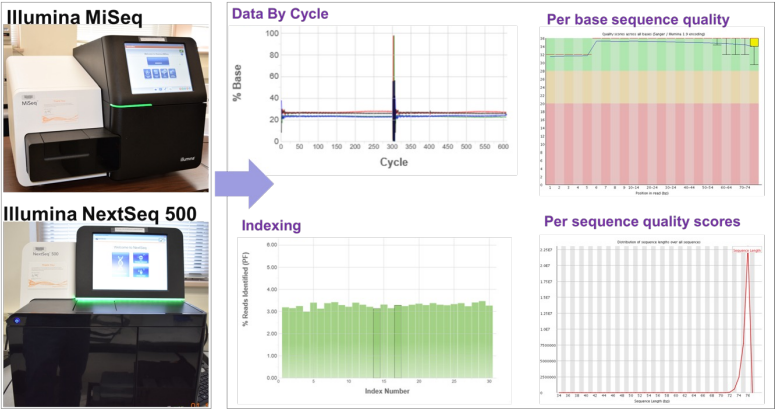
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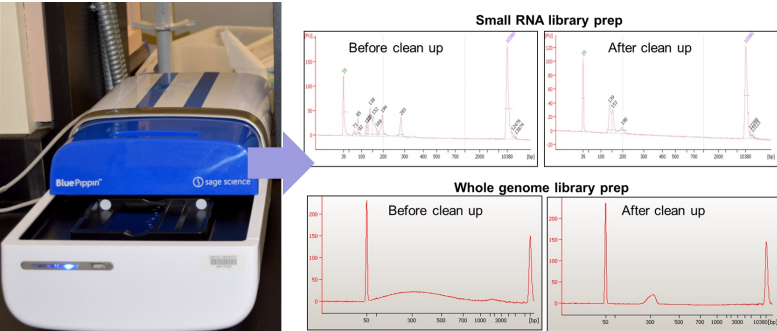
UMassAmherst

CAPABILITIES

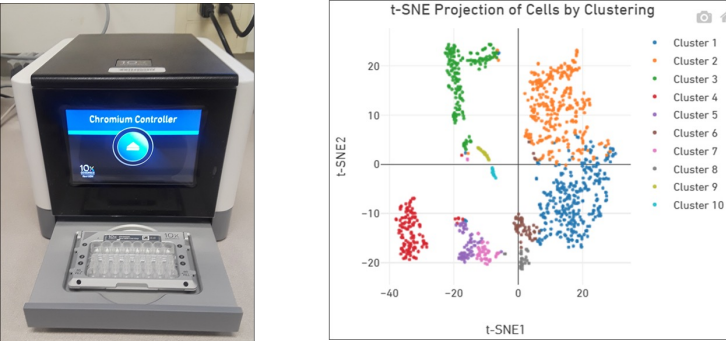
Next-Generation Sequencing (NGS)



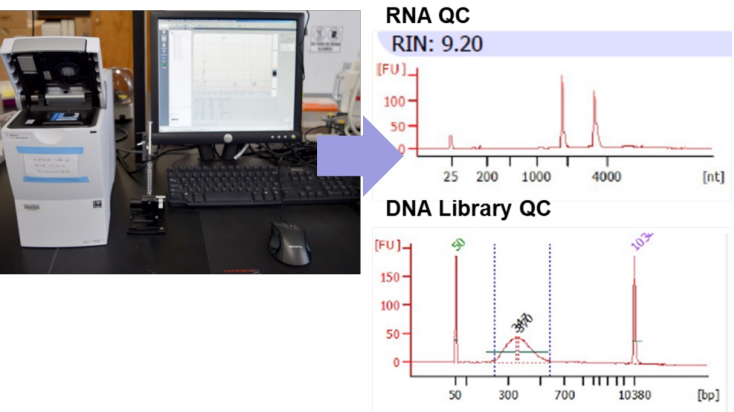
BluePippin, DNA Size selection system



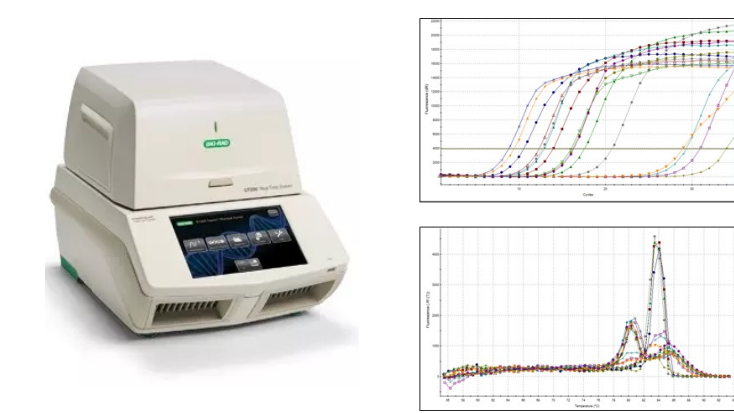
Single Cell Genomics: 10x Genomics Chromium Controller



Agilent 2100 Bioanalyzer



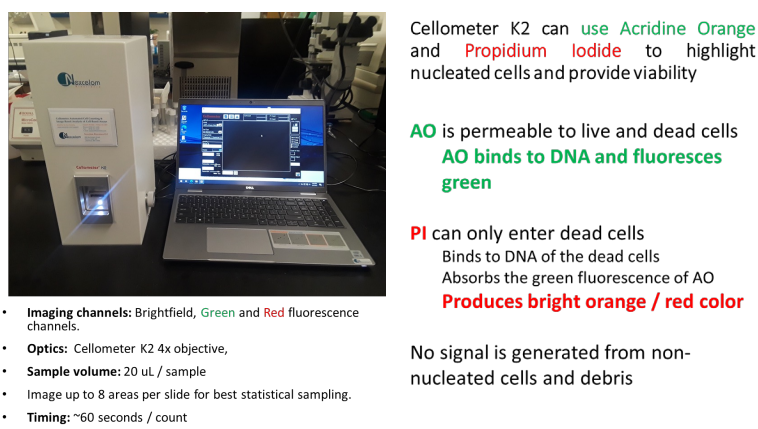
CFX96 Touch Real-Time PCR Detection System



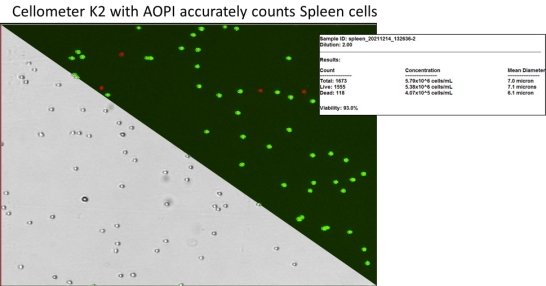
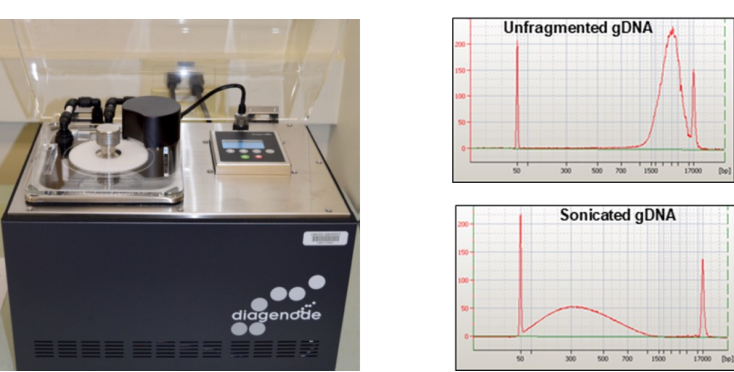
What Makes Us Unique

- Library preparation for NGS Projects
  1. RNA-Seq (polyA mRNA, rRNA depletion)
  2. Whole genome and metagenome
  3. Metatranscriptomics
  4. Targeted 16S/18S rRNA amplicon
  5. Small RNA and ChIP-Seq
  6. Custom library preparation
- DNA and RNA isolation from different sample types
- Single Cell Genomics Projects
- DNA and RNA quality assessments
- Limited data analysis
- Offer instrumentation training, project consultation, technical assistance, and documentation for grants application/manuscripts.

Nexcelom Cellometer K2 Cell Counter



Bioruptor Pico Sonicator System



**Massachusetts**  
LIFE SCIENCES CENTER

A significant portion of core equipment has been purchased through MLSC grant funding support.