

# Nanobiology Core

*Excellence in Genomics, Cell Biology, and Molecular Biology*



**Sequencing**  
Illumina MiSeq,  
Covaris sonicator, and  
isolated sequencing  
space.



**Cell Analysis**  
Flow cytometry,  
microplate readers,  
confocal microscopy,  
among others.



**Cell Culture Space**  
Dedicated BSL2 and  
BSL3 cell culture  
areas for bacteria,  
yeast, insect, and  
mammalian cells

## Advance your research with biological techniques

Whether you want to analyze genes, test for cytotoxicity, or grow the next superfood, the Joint School of Nanoscience and Nanoengineering (JSNN) offers 24/7 access to a host of biological instruments and spaces with equipment training, research collaboration, and project consultations. JSNN provides state-of-the-art facilities with skilled research staff to address the needs of academic, industry and government users. For access to the core user facility and professional staff, join the JSNN's Nanomanufacturing Innovation Consortium (NIC), administrated by Gateway University Research Park ([www.gatewayurp.com/pages/The\\_Nanoschool](http://www.gatewayurp.com/pages/The_Nanoschool)).

### EXPERT TRAINING

Experienced staff can provide high-quality training in one-on-one or small group sessions.

### DEDICATED SPACES

Multiple cell culture labs, cold room, BSL-3 lab, hydroponics lab, and MRI facility support many different needs

### NEW PROCESS DEVELOPMENT

Work with our skilled staff to develop innovative methods and processes to solve today's biological and material challenges

## INSTRUMENTATION

- Agilent G1030AX 2100 Bioanalyzer
  - Microfluidics chip-based electrophoretic separation of DNA and RNA
- BD FACS Aria III
  - Flow Cytometry and Cell sorting for most common fluorescent labels
- Biotek Synergy Plate Reader
  - Multimode microplate reader with monochromator and reagent injection
- Covaris Ultrasonicator
  - No-heat DNA, RNA, and chromatin shearing, tissue homogenization, cell lysis, compound dissolution, and particle micronization.
- GE Amersham Imager 600
  - Digital Chemiluminescence gel imaging system
- Horiba SPRi Surface Plasma Resonance System with XACTII Arrayer
- Illumina MiSeq Sequencer
  - High power sequencer for targeted gene, metagenomics, small genome, and amplicon sequencing
- Microfab Jetlab 4 Tabletop Microprinter
  - 2D precision printing of picoliter solutions including proteins and cells.
- Nanodrop 2000 Spectrophotometer
  - Measure the concentration and purity of DNA, RNA or protein samples using only 1 $\mu$ L.
- Malvern Zetasizer Nano ZS
  - DLS/Zeta instrument for particle sizing, electrophoretic mobility, zeta potential, and molecular mass calculation with temperature control
- Siemens Magnetom Trio MRI 3T
- Zeiss EVO LS-10 Variable Pressure SEM with Deben cold stage
- Zeiss Spinning Disc Confocal Microscope with CO2 Live Cell Stage



**"With Nanomanufacturing Innovation Consortium (NIC), a \$5,000 yearly membership investment opened the doors to a \$65 million facility that includes 180 pieces of equipment."**

**- A NIC Member**

For more info or to join the Nanomanufacturing Innovation Consortium (NIC), please contact –

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