

Lab Equipment & Services

UNIVERSITY OF SOUTH FLORIDA RESEARCH PARK OF TAMPA BAY



THE FOLLOWING SERVICES AND EQUIPMENT ARE AVAILABLE FOR COMMERCIAL TENANTS IN THE USF RESEARCH PARK ON A FEE BASIS

PROPOSED USF CONNECT CORE LAB EQUIPMENT

Genomics Laboratory

- Microarray gene expression analyzer
- Quantitative RT-PCR systems
- DNA sequence analyzer
- Oligo synthesizer

Proteomics Laboratory

- Protein/peptide sequence analyzer
- HPLC protein purification
- Mass spectrometry protein identification and peptide analysis

Cellular Support and Analysis Laboratory

- Cell culture laboratory
- Two CO₂ incubation chambers
- Two tissue culture hoods
- Inverted light microscope
- High speed centrifuge
- Four degree media refrigerator
- Liquid nitrogen cell freezer
- Flow cytometry single cell analyzer

Microscopy/Imaging Laboratory

- Fluorescent, scanning confocal microscope
- Inverted fluorescent microscope
- Transmission electron microscope with cryosystem
- Ultramicrotome with cryochamber

USF Connect Support Equipment

- Refrigerated microfuge
- Autoclave
- Turn-key beta star
- Water bath
- Hybridization oven
- Analytical balance
- Two chemical hoods
- Safety showers/eyewash station
- Minus eighty degree freezer
- Speed vacume centrifuge
- Biosafety cabinants
- Thermocycler
- Walk in fume hood

OPERATIONAL USF CAMPUS CORE LAB EQUIPMENT

NMR Spectroscopy Core - Chemistry

- **500 MHz Inova NMR**
 - 3 Channel, Z axis gradient, Long term reservation
 - Probes: 3 mm Broadband, 3mm indirect BB, 5mm bio probe, 4mm nanoprobe
- **400 MHz Inova NMR**
 - 2 channel, walk-ons and multi-sample runs, Z axis gradient
 - Probes: 4 mm nanoprobe, 5mm MAS, 5mm BB
- **250 MHz DRX NMR**
 - 2 channel, walk-on, 5mm BB, 5mm MAS, 5mm indirect
- **VXR 300 NMR**

Peptide Synthesis Core - Chemistry

- ABI peptide synthesizer
- Reverse phase HPLC, analytical and preparative
- MALDI mass spectrometer
- Aviv circular dichroism spectrometer
- Peptide freeze drying system, Fisher

NANOMATERIALS AND NANOMANUFACTURING CENTER ENGINEERING

Microelectronics Processing/clean room Laboratory

- Furnace quartzware/loading station hood
- SIC epitaxial growth chamber
- Plasma therm PT700
- SFI cluster sputter tool
(focused ion beam not yet in operation)
- SDI COCOS and SILC tools
- ATV furnace
- Critical point dryer

- Alphastep profilometer
- Long working microscope
- Afterglow system and research tool
- Mask Aligners
- Photoresist spinners
- Hard/softbake oven
- Two banks of furnace tubes
- Rudolph ellipsometer
- Spin rinse dryer

Metrology Laboratory

- Field emission scanning electron microscope
- EDAX scanning electron microscope
- Atomic force microscope
- Philips X-ray diffraction system
- Transmission electron microscope (not yet in operation)
- Leitz inspection microscope
- Ultrasonic test systems
- Sopra spectroscopic ellipsometer
- Hummer sputter tool, various material preparation

Support Nanocore Laboratories

- Surface science laboratory
- Device and test engineering laboratory
- Spectroscopy laboratory
- Laser processing and system integration laboratory
- Thin films deposition laboratory

USF MICROSCOPY IMAGING CENTER - BIOLOGY

- FEI Morgagni 268D transmission electron microscope
- JOEL JSM35 scanning electron microscopes
- Hitachi HHS2R scanning electron microscope
- Telcal gold-platinum sputter tool
- Various ultra-microtomes
- Dark room and data analysis workstations

USF SCIENTIFIC GLASS BLOWER

- New pieces in a variety of materials including: Pyrex and Cortz

USF ANIMAL CARE AND RESEARCH CORE DIVISION OF COMPARATIVE MEDICINE:

Specific Pathogen Free Services

- Animal care
- Animal health monitoring
- Quality control
- Animal procurement and husbandry
- Training for IAUC certified researchers

Basic Technical Skills and Services

- Injections
- Oral Dosing
- Bleeding
- Euthanasia
- Ear notching
- Tail snipping
- Tattooing

Advanced Technical Skills and Services

- Surgical assistance
- Endotracheal intubation
- Patient monitoring
- Rodent colony management
- Necropsy
- Perfusion
- Radiography
- Bioluminescence imaging
- Vaginal lavage



FOR MORE INFORMATION

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