MICROARRAY CORE AND BIOINFORMATICS RESOURCE FACILITIES
Department of Biochemistry and Molecular Biology
Oklahoma State University

Purpose
These Facilities function to stimulate the competitiveness of microarray and bioinformatics research activities at the Oklahoma State University by providing access to advanced analysis equipment and software tools.

Major Services
- Production of low to high density microarrays
- Microarray Scanning and analysis
- Roche 454-sequencing (discontinued in ~June 2016)
- Consultation for experiments, projects and proposal development
- Data storage and retrieval

Equipment
- Microarray Printers: Omni Grid 100 (GeneMachines)
- Microarray Scanners: ScanArray Express (PerkinElmer); GenePix 4000B (Axon Instruments),
- NanoDrop ND-1000 spectrophotometer for RNA and labeling assessment
- NanoDrop 3300 Spectrofluorimeter for fluorescence quantifications of DNA and RNA
- Agilent 2100 DNA and RNA Bioanalyzer
- Robust desktop workstations
- Biomek 2000 and access to ABI RT-PCR

Software – Analysis Tools
- GenePix Pro: Microarray image analysis software
- GenePix Auto-Processor (GPAP): For pre-processing and statistical analysis of raw microarray data
- Multiple Gene Ontology software and databases
- Experienced local custom BLAST searches on the HPCC
- PipeOnline and MyPipeOnline: For automated EST sequence processing, storage and functional sorting (Dr. Canaan)
- VirOligo: A virus-specific oligonucleotide database for virus detection

Training
- DNA microarray workshops
- Bioinformatics workshops
- Software Carpentry Workshops (Data Carpentry soon!)
- (Possible soon) NIH/NCBI Hackathons

Fees
- Hourly fees are currently $35/service-unit-hour and can be negotiated for collaborative efforts
- Instrument runs and costs are absolute minimum as we are a non-profit facility

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