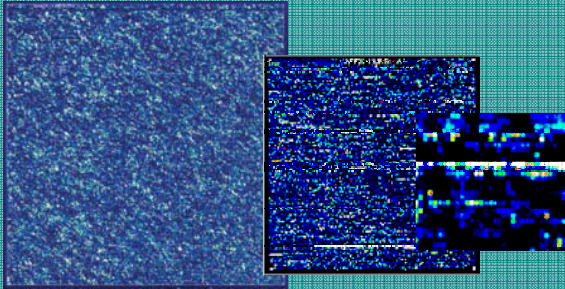
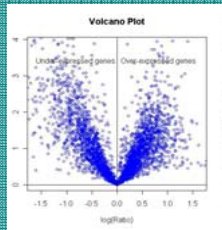
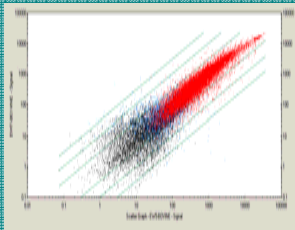


IMAGE GALLERY

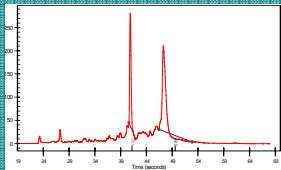
GeneChip Images containing 22,283 genes



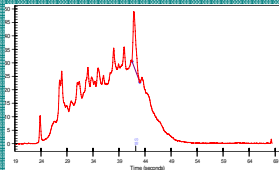
Comparative Analysis of Gene Signals using a 2D Scatter Plots and Volcano Plots



RNA Integrity Determined by the Agilent Bioanalyzer 2100



Good RNA



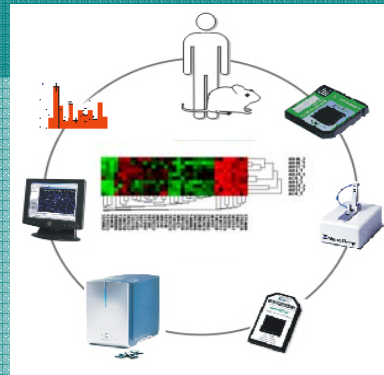
Degraded RNA



Affymetrix GeneChip System

MICROARRAY FACILITY MISSION

The UVM DNA Microarray Facility was initiated by the Vermont Genetics Network in collaboration with the Vermont Cancer Center and the College of Medicine. The facility opened in Nov. 2002. The goal of the facility is to provide microarray technology support services for organisms ranging from prokaryotes to eukaryotes. These analyses will compliment the ongoing research presently conducted at the University of Vermont and it's partner BPI colleges.

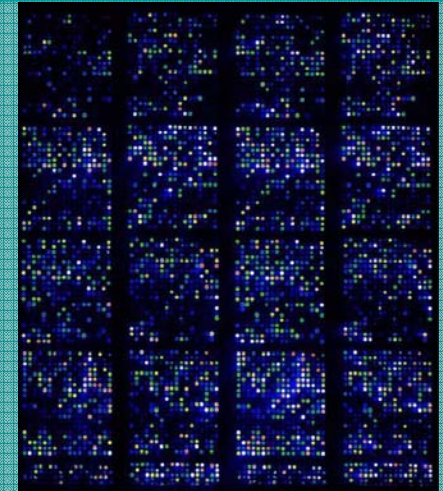


UVM MICROARRAY FACILITY

University of Vermont
149 Beaumont Ave
HSRF 305
Burlington, Vermont 05405



UVM MICROARRAY FACILITY



FACILITY INFORMATION

University of Vermont
305 HSRF
149 Beaumont Ave.
Burlington, VT 05405
802-656-2557
www.uvm.edu/~biology/microarray



FACILITY INFORMATION

Services Provided:

- Aid in RNA and DNA extractions
- RNA quality /quantity assessment
- Gene expression profiling
- DNA Mapping {SNP, LOH}
- Exon Profiling



GeneChip

Equipment Available:

- NanoDrop Spectrophotometer
- Agilent 2100 Bioanalyzer [RNA, DNA, Protein]
- Affymetrix Hybridization Oven 640
- Affymetrix Fluidics Station 400
- GS Scanner 3000



RNA Nanochip

Staff:

Tim Hunter, Manager (right)

Scott Tighe, Senior Research Technician (left)



FACILITY ACCESS GUIDELINES

Sample Requirements for Expression Profiling [Including Exon arrays]

Step 1: Consultation: Consulting on experimental design is strongly encouraged. This is not a requirement, but rather a service to those who have not designed microarray experiments before or those who wish to have input on new experiments.

Step 2: Submit RNA samples for quality assessment. Please submit an RNA Quality Assessment Order Form to the intake area of the facility (HSRF 305, samples should be placed in the freezer in 305A). It is recommended that you isolate your RNA using TriZol followed by Qiagen's RNeasy kit. Samples must be DNase-treated. Protocols can be picked up in the facility or downloaded from the website: www.uvm.edu/~biology/microarray/links.html

Concentration must be in the range of 5-500 ng/ul for the Bioanalyzer's NanoChip and 200 pg/ul-5ng/ul for the Picochip. We require 2.0 ul of clean RNA for sample assessment submitted in 0.5 ml tubes and resuspended in nuclease-free water.

Step 3: Submit RNA samples for target preparation. A Target Prep Form must be submitted in the intake area of HSRF 305. Information required is RNA concentration and A260/280 ratio. The concentration of your RNA needs to be >250 ng/ul. 3 ug of total RNA is recommended for each target prep, but the amount can be modified to as low as 10ng for samples such as LCM. Please consult with the staff on this.

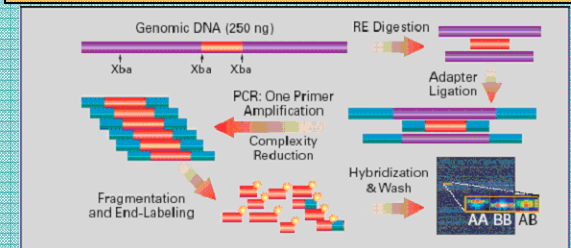
Step 4: Test Chip Hybridization and Scanning.

We require a representative testchip be run for each batch of target preparations. The testchip can assess the quality of the target before moving on to more expensive arrays.

Step 5: Hybridization and Scanning of Target Chip.

A CD will be provided to the investigator including the .exp, .dat, .cel, and .chp files. The facility will archive two copies.

Sample Requirements for DNA Mapping Arrays



Genomic DNA should be submitted at a concentration between 50-250 ng/ul in tris [10mM] EDTA [0.1mM]. DNA should first be checked on an agarose gel to insure it is not fragmented. DNA should have a 260/280 of 1.8 or better.

FEE STRUCTURE

Consultation	FREE
RNA Assessment [up to 12 samples]	\$50.00
Eukaryotic [target prep, scan]	\$250.00
Test Chip [Hyb./Scan]	\$175.00
Chip Hyb and Scan Only	\$75.00
Prokaryotic [target prep, scan]	\$175.00
LCM/Nugen [target prep, scan]	\$275.00
DNA Mapping [target prep, scan]	\$175.00

UVM MICROARRAY FACILITY

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