Mission Statement

The mission of the Genomics Core Laboratory is to provide state-of-the-art genomic services to UTHSCSA and the local scientific community in an economical and timely manner.

Services Provided

- Illumina custom SNP genotyping (48-384plex)
- Illumina whole genome genotyping
- Genotyping of length polymorphisms - custom assays
- TaqMan allelic discrimination genotyping
- Illumina whole genome gene expression - Human (HT12) and mouse (WG6)
- Illumina mouse medium density linkage panel analysis - speed congenics
- Quantitative real-time PCR analysis - gene expression and copy number - processing of low density microfluidics cards
- Bioanalyzer analysis of DNA and RNA
- Ion Torrent PGM Microbiome sequencing - 16S rRNA gene
- Ion Torrent PGM MicroRNA sequencing
- Biological specimen banking - DNA and RNA isolation - Human cell line authentication

Key Equipment

- Illumina BeadXpress reader
- Illumina iScan array scanner
- ABI 7900HT Sequence Detection System
- ABI microfluidics card block
- Ion Torrent Personal Genome Machine
- Ion OneTouch System
- Agilent Bioanalyzer
- NanoDrop spectrophotometer
- Qubit fluorometer

Research Supported

**Illumina Custom SNP Genotyping**

Validation of Genome-Wide Prostate Cancer Associations in Men of African Descent


**Ion Torrent PGM Microbiome Sequencing**

Sequencing of the bacterial 16S rRNA gene hypervariable region demonstrates variation in the microbial populations found in stool specimens from subjects in the San Antonio Family Heart Study. CTSA pilot project: Charles Leach, M.D.

**Real Time qPCR Analysis**

Reduced Expression of Fumarate Hydratase in Clear Cell Renal Cancer Mediates HIF-2α Accumulation and Promotes Migration and Invasion

Sudarshan et al. (2011) PLoS One 6:e21037

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