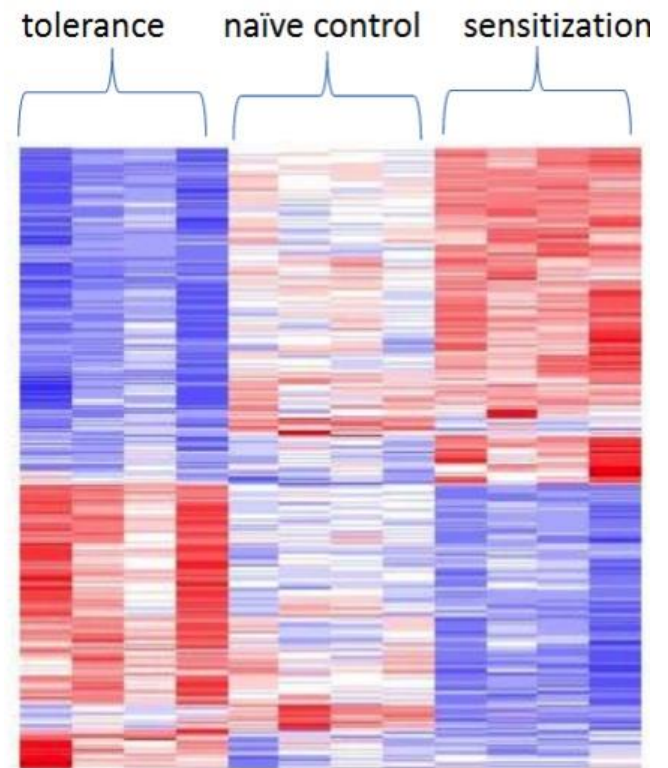


Bioinformatics Core
Comprehensive Transplant Center
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<http://www.feinberg.northwestern.edu/sites/transplant/research/research-cores/bioinfo-core.html>

Comprehensive Transplant Center

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Bioinformatics Core



Comprehensive
Transplant Center

Mission

The Bioinformatics Core at Comprehensive Transplant Center is committed to provide exceptional care, pioneering research and the training of the next generation of transplant clinicians and researchers.

The mission of the Core is to provide state-of-the-art bioinformatics training and analytic support services to investigators interested in basic, pre-clinical, clinical and epidemiological transplant studies within Northwestern.

About the Bioinformatics Core

Formed in 2009 the Bioinformatics Core works as a platform such that CTC and other NU researchers could do collaborative research projects involving: Genomics Data Analysis, Proteomics Data Analysis, Metabonomics Data Analysis, Pathway and Function Analysis based on Databases, and Sequence and regulatory element Analyses based on Databases.

With the introduction of new technology in biological world, for recording experimental data, amount of big-data has increased rapidly in the medical domain. This served as the driving force for CTC towards developing a core facility that could analyze such high throughput and/or high-dimensional biological data arising from diverse technology platforms, including but not limited to, arrays - Gene expression, transcript/isoform, SNP, Exon, methylation, proteins and next Generation Sequencing - DNA-seq, RNA-seq, WES, ChIP-seq, etc.

To perform computationally expensive analyses, Core utilizes NU's High Performance Computing Cluster, QUEST.

Bioinformatics core serves interested investigators in the Northwestern University community and has performed bioinformatics analyses for more than 100 projects. The Core has helped Principal Investigators to secure funding support from various funding agencies including National Institutes of Health. Ongoing and planned research efforts at the CTC and its collaborators take full advantage of the emerging and evolving technologies such as; microarray (RNA expression, Exon array, DNA methylation array, etc.), next generation sequencing (DNAseq, RNAseq, etc.), top-down proteomics from NU Evanston Campus, RBM (Rules-Based Medicine Multi-Analyte Profiles assays) and SUSHI (Simultaneous Ultrasensitive Subpopulation Staining/Hybridization In Situ).

Services

The Core contains state-of-the-art computing and analytical software packages for analyzing wide range of data. It provides various analysis services, including but not limited to,

- Class comparisons
- Pathway Analyses
- Gene Function enrichment analysis
- Class discovery and pattern recognition
- Class prediction
- Genome Wide Association Studies (GWAS)

We are always interested in collaborations, and will attempt to accommodate any proposed project, large or small.

Getting Started

To discuss starting a project using the services of the Bioinformatics Core of the Comprehensive Transplant Center, please contact:

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