

BioExpress® Metabolic Suite

Targeting metabolic diseases.

With recent trends in globalization, sedentary lifestyles, and ever-increasing serving sizes of high-calorie diets, metabolic disorders such as diabetes, obesity, and metabolic syndrome are on a sharp increase in the general population. Over 150 million individuals suffer from diabetes worldwide, with more than 90% type 2 diabetics. Over 100 million people worldwide are obese. And it is estimated that more than 47 million American adults meet the National Cholesterol Education Program (NCEP) criteria for metabolic syndrome.

Since individuals with these metabolic disorders are also at greater risk for other health problems, such as cardiovascular disease, early identification and treatment of individuals with metabolic disorders are critical. Gene Logic has created the BioExpress® Metabolic Suite, an interactive informational database containing gene expression data from metabolic tissue samples analyzed with Affymetrix GeneChip® arrays. It also contains comprehensive clinical information from the sample donors to facilitate the study of metabolic disorders. The Genesis Enterprise System® Software in the BioExpress® Metabolic Suite enables integrated analysis and visualization of the gene expression data and clinical information for applications throughout the drug discovery and development pipeline.

Fast, Accurate, and Comprehensive

The BioExpress® Metabolic Suite helps researchers to:

- Rapidly and accurately compare gene expression profiles in normal versus diseased tissues.
- Save time, effort, and expense involved in identifying potential drug targets and surrogate markers for diagnosis, progression and prognosis, and prioritize candidate compounds.
- Conduct gene expression analysis of relevant disease animal models, such as obesity, providing a further basis for comparison of the correlation between human and non-human disease models.
- Correlate gene expression and clinical parameters to identify biomarkers for earlier diagnosis and prediction of treatment response.

Detailed Case Studies

The BioExpress® Metabolic Suite is built on expression data and detailed clinical information from over 800 samples and includes both human controlled case studies and animal models, which can be used to analyze metabolic disorders. The data set contains several well-defined case study experiments involving animal and cell models. In addition, clinical information is continuously updated to include outcomes data for diabetic and obese donors, comparing before and after drug treatment, exercise, and weight loss.

BioExpress® Metabolic Suite Coverage

Type 2 Diabetes
Obesity
Metabolic Syndrome
Overweight/Obesity and Effect of Thiazolidinedione
Obesity and Effect of Exercise
Rat and Mouse Models of Diabetes and Obesity

Sample Distribution in the Metabolic Suite

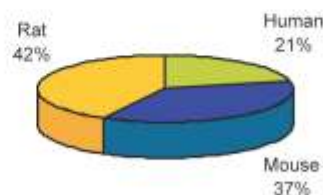


Figure 1. The BioExpress® Metabolic Suite contains rat, mouse, and human tissue samples.

Simple, Rapid Analysis

Although metabolic disorders involve a complex interplay between lifestyle issues, such as diet and exercise, and genetics, the BioExpress® Metabolic Suite simplifies analysis of these disorders by allowing researchers to quickly compare the gene expression profiles between diseased and normal tissues to discover potential drug targets and biomarkers. You can also identify overlapping expression patterns that may indicate shared pathways across multiple diseases. For example, recent Gene Logic research using samples in the BioExpress® Metabolic Suite has identified Stearoyl-CoA-Desaturase (SCD) as a potential drug target or biomarker for metabolic syndrome. Analyses such as this are facilitated by Gene Logic's Genesis Enterprise System® Software.

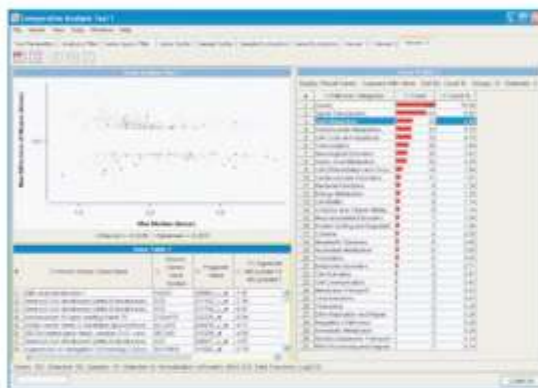


Figure 2. This screen shot generated using the Genesis Enterprise System® Software shows how interlinked Gene Scatter plots, Gene Profile panels, and Gene Tables can be used to identify genes associated with disease.

Robust, Reliable, and Reproducible Analysis

Gene Logic generates gene expression data using one or more types of Affymetrix GeneChip® arrays. The use of standard Affymetrix processing protocols ensures that the final gene expression data are comparable with those generated in the customer's environment. Gene Logic adds additional proprietary processes and numerous quality control standards to further ensure that only the highest quality data are contained in the BioExpress® Metabolic Suite. The result is a robust, reliable, and reproducible analysis, capable of comparative measures.

Powerful Tools for Precise Customized Results

The BioExpress® Metabolic Suite is enhanced by the Genesis Enterprise System® Software, which features powerful tools for:

- Quick identification of differentially regulated genes that may play crucial roles in disease development, progression, and therapeutic response.
- Dynamic analysis through visualization, data analysis, and seamless integration of donor information, including tissue photomicrographs.
- Visualization of expression levels of genes and ESTs across normal and diseased tissues.
- Pathway research using enhanced signal transduction and metabolic pathway maps from KEGG and BioCarta™ databases with linkage to more detailed information about specific genes of interest.
- Chromosome mapping.

Flexible Solutions

Gene Logic offers a wide selection of gene expression information solutions in a variety of configurations to meet your scientific and budgetary needs. Customers may gain access to data from individual samples, to the entire BioExpress® System, or to a subset of the BioExpress® System, via one of our therapeutic area-specific database suites:

- Atlas Reference (Normal Healthy Tissues)
- Cardiovascular
- Central Nervous System
- Inflammation
- Metabolic
- Oncology

Our information products may be licensed on an annual subscription basis or may be licensed on a perpetual basis, depending on your needs.

For more information about Gene Logic's flexible BioExpress® System solutions, including a product demonstration, call 1-800-GENELOGIC.



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