

## **New software for DNA microarray analysis**

Gene Network Sciences (GNS), the United States, has launched an integrated software package that allows users of microarray data to quickly and accurately extract maximum information from their experiments. BioMine is the only commercial product with the proprietary BiCluster algorithm, that directly links genes to conditions, and sophisticated clustering algorithms including super-paramagnetic and percolation. These algorithms are complemented by non-parametric statistical analysis tools, which do not assume a normal distribution of the data, and correct normalization for Affymetrix and other data sets.

BiCluster holds the promise of solving some of the most immediate needs in gene expression analysis such as finding marker genes for cancer sub-types or identifying therapeutic targets for novel treatment strategies. Once researchers run experiments using DNA chips or cDNA microarrays and complete the image-processing step, the resulting data files are imported to BioMine for normalization, processing and filtering. Researchers then have the option of running one of BioMine's 14 clustering algorithms. At any point, BioMine's five statistical tools, which include non-parametric tests that do not assume normal data distribution, can be tapped to provide validation and determine the P-value of relationships. BioMine's advanced visualization techniques, including 3D PCA, projection pursuit, parallel coordinates and self-self plots, can be used throughout the process to provide clear pictures of the data. In addition, BioMine offers an experiment design tool that helps researchers save time and reduce expenses by delivering the exact number of replicates needed for a given confidence level.

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