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Methods for Eliminating False Data from Comparative Data Matrices and for Quantifying Data Matrix Quality

Technology Reference
R033

Keywords
Research Tool

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Field
Neurological Sciences
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Patent Status
US Patent Pending
20060235646

Cross Reference
This invention is related to discoveries R029, R031, R244

AREAS OF APPLICATION

The identification and quality assessment of experimentally significant data points in large comparative data matrices.

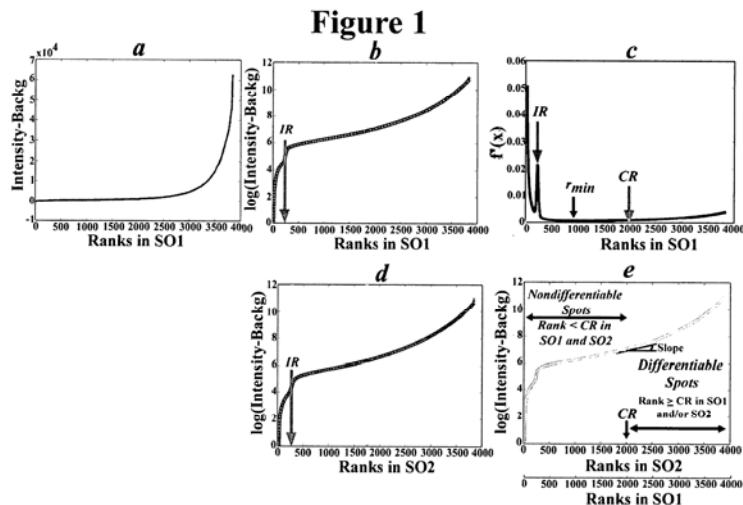
- Gene expression profiling
- Protein expression profiling
- Nucleic acid sequence profiling
- Recovery of low frequency relevant data points from large paired data sets

ADVANTAGES

- Potentially automatable
- User selectable decision thresholds for control of data robustness
- Provides a numerical assessment of data quality
- Applicable to any type of data set comprised of paired data points

THE TECHNOLOGY

This invention comprises methods and algorithms for eliminating erroneous and indeterminate data from pairs of large analytical data matrices and for estimating the quality of the data that is retained. Methods for the normalization of the data matrices are also provided. These methods are designed to eliminate from a data set those data pairs that cannot reliably be differentiated from background or from one another and to eliminate those pairs that represent excessively noisy data. A numerical estimate of the quality of each remaining pair of data points is then provided. These methods can be employed in fully automated and interactive forms.



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