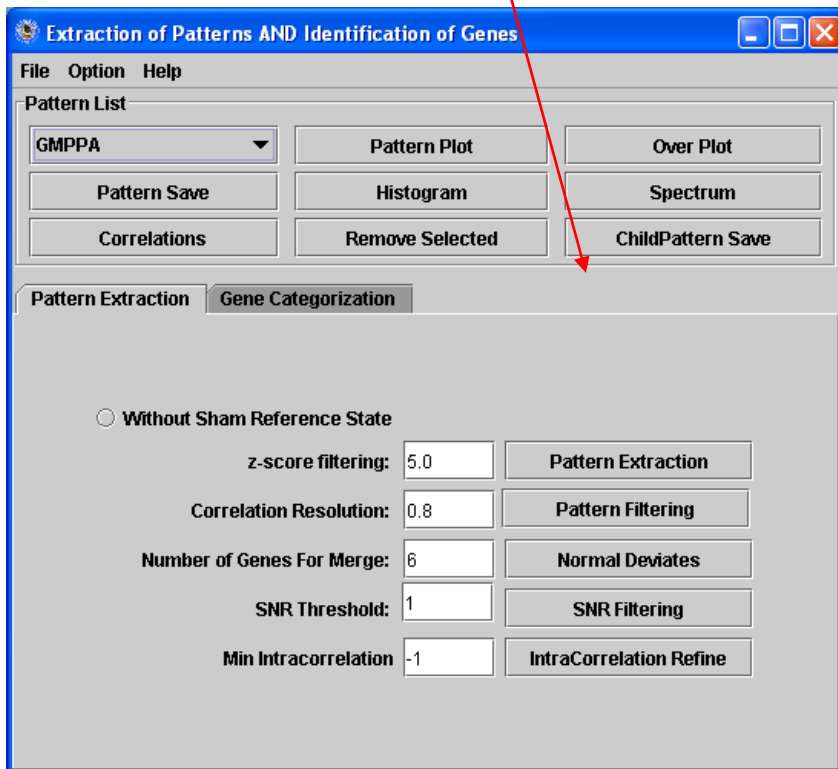


Extraction of Patterns and Identification of Genes (EPIG)

EPIG is an in-house developed microarray gene expression data analysis tool. EPIG consists of two parts. The first part is pattern extraction. The second part is the gene identification.

(1) Extraction of Gene Expression Patterns

User may click Button “Pattern Extraction” to perform pattern extraction. “z-score filtering” will filter those genes which have one or more data points with z-score larger than 5. “Correlation Resolution” is a correlation threshold to filter those profiles with a r-value larger than 0.8 to another profile. “Number of Genes For Merge” gives a number with which number of profiles to be merged. “SNR threshold” filter those profiles which have the SNR less than the given value. (Detail see EPIG manuscript)



Extraction of Patterns AND Identification of Genes

File Option Help

Load Pattern Data
Print Cat Graphs
Close

Pattern Save

Correlations

Pattern Plot

Histogram

Remove Selected

Over Plot

Spectrum

ChildPattern Save

Pattern Extraction Gene Categorization

☐ Without Sham Reference State

z-score filtering: 5.0 Pattern Extraction

Correlation Resolution: 0.8 Pattern Filtering

Number of Genes For Merge: 6 Normal Deviates

SNR Threshold: 1 SNR Filtering

Min Intracorrelation -1 IntraCorrelation Refine

Extraction of Patterns AND Identification of Genes

File Option Help

Pattern

☐ Two Channel Log Intensity

GM Plot Intensity

☒ Categorization with Plot

☐ Normal Deviates

☒ With Pattern Filter

Reset

Plot Option

☐ Spearman Spectrum

Replace Zero Data By its replicate zverage

Over Plot

Spectrum

ChildPattern Save

Pattern Extraction Gene Categorization

☐ Without Sham Reference State

z-score filtering: 5.0 Pattern Extraction

Correlation Resolution: 0.8 Pattern Filtering

Number of Genes For Merge: 6 Normal Deviates

SNR Threshold: 1 SNR Filtering

Min Intracorrelation -1 IntraCorrelation Refine

Extraction of Patterns AND Identification of Genes

File Option Help

Pattern List

GMPPA

Pattern Plot Over Plot

Pattern Save Histogram Spectrum

Correlations Remove Selected ChildPattern Save

Pattern Extraction Gene Categorization

Categorization S.Pattern display all

SNR Histogram Signal Histogram r-Value Histogram

Magnitude 0.5 p-value 1

SNR 3 ABS(Mag-SNR)

r-Value above: 0.8

below:

☒ AND

Display Selected Category Display All Category