

Paired

miRNA expression  
profiling data

Gene expression  
profiling data



miRNA array



Gene array

Student t-tests

Outlier miRNAs

miRNA ID	p-value
miRNA_1	5E-19
miRNA_2	9E-16
.....	.....

Outlier Genes

Gene ID	p-value
Gene_1	7E-19
Gene_2	9E-15
.....	.....

Pearson  
correlation test

Negative correlation pairs

miRNA ID	Gene ID	Cor.value
miRNA_1	Gene_1	-0.95
miRNA_2	Gene_2	-0.8
.....	.....	.....

Enrichment analysis  
for target genes

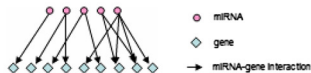


miRNA-gene interaction data



miRecords  
Tarbase  
HOCTAR  
.....

Condition-specific miRNA-  
gene interaction network



Candidate miRNA biomarkers

Rank	miRNA ID	NOD value	P.value
1	miRNA_1	40	6E-10
2	miRNA_2	35	7E-8
...	.....	.....	.....