Paired miRNA expression profiling data and Gene expression profiling data lead to:

- **Outlier miRNAs**
  - miRNA ID: miRNA_1, p-value: 5E-19
  - miRNA ID: miRNA_2, p-value: 9E-16
  - ......

- **Outlier Genes**
  - Gene ID: Gene_1, p-value: 7E-19
  - Gene ID: Gene_2, p-value: 9E-15
  - ......

Using Student t-tests, these outliers are then correlated using the Pearson correlation test:

- **Negative correlation pairs**
  - miRNA ID: miRNA_1, Gene ID: Gene_1, Cor.value: -0.95
  - miRNA ID: miRNA_2, Gene ID: Gene_2, Cor.value: -0.8
  - ......

Diagrams of miRNA-gene interaction network and enrichment analysis for target genes lead to:

- **Condition-specific miRNA-gene interaction network**
- **Enrichment analysis**

Finally, candidate miRNA biomarkers are identified:

<table>
<thead>
<tr>
<th>Rank</th>
<th>miRNA ID</th>
<th>NOD value</th>
<th>P.value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>miRNA_1</td>
<td>40</td>
<td>6E-10</td>
</tr>
<tr>
<td>2</td>
<td>miRNA_2</td>
<td>35</td>
<td>7E-8</td>
</tr>
<tr>
<td>......</td>
<td>......</td>
<td>......</td>
<td>......</td>
</tr>
</tbody>
</table>